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SUSTAINABILITY

IN FASHION SUPPLY CHAINS

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Examining the dynamics of small and medium enterprise sustainability in fashion industry multitier supply chains

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Thesis submitted in partial fulfilment of the requirements for the degree of Doctor of Philosophy

2020

Doctoral thesis in sustainable business practices at
Queen Margaret University Business School
under the academic supervision of
Professor Claire Seaman,
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and
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Acknowledgements

First I would like to express my sincere thanks to my doctoral research director, supervisory chair Professor Claire Seaman, whom I had the fortune to meet during the doctoral study at Queen Margaret University, Edinburgh, who always encouraged me in difficult times, who never failed to show her generous support, selfless giving, involvement and availability, above all proving that there is still humanity left in this world. Her criticism and encouragement have indeed enabled me to advance my work in the direction of greater clarity and scientific rigour. She is the ultimate engine of this thesis, an example to follow.

I would like to express my deep gratitude to my supervisor Dr Mauricio Silva for methodological support, advice, friendly encouragement, availability, and giving me the confidence and granting autonomy. Similarly, I wish to express my gratitude to Mr Richard Bent, who co-supervised the thesis with confidence. I want to thank him for his patience, valuable and expert advice, and invaluable support. I also like to extend my sincere thanks to Dr Eurig Scandrett for his valuable comments.

I cannot forget to thank Queen Margaret University and the Graduate School for their kind generosity.

I also wish to extend my sincere thanks to all the organisations and individuals involved directly or indirectly and contributed to the realisation of the project with valuable data and information necessary to carry out the analyses and studies needed for the thesis. Without them, the research would not have been the same.

And, of course, Nishami, my companion, my mainstay, who lived this thesis very closely and shares in the accomplishment, despite the personal sacrifices of this wonderful intellectual adventure. Without her patience and understanding, this would not have been possible.

I am forever indebted.

To my wife,

To my family,

To all my teachers

and

To all those who are dear to me.

Abstract

Sustainability in supply chain management (SSCM) has become established in both academia and increasingly in practice (Fraser, Müller and Schwarzkopf, 2020). As stakeholders continue to require organisations to take more responsibility for their entire supply chains, this has led to the development of multitier SSCM. Despite small and medium enterprises' (SMEs') pivotal impact on the global economy, environmental and social responsibility commitments and SSCM have been largely overlooked (Chow et al., 2017). Little attention has been paid to the convergence of sustainability dimensions in SMEs.

This thesis examines how sustainability-inspired SMEs in the fashion industry in Scotland implement sustainability and diffuse sustainability across the diverse supply chain. This leads to an investigation of the factors that influence sustainability practices along the supply chain and practices adopted to verify sustainability in the supply chain, with an overall view to improving multidimensional performance. This research adopts an exploratory multiple case study approach that combines multiple data sources: semi-structured interviews, observation, and secondary data analysis. The empirical study includes two SME fashion retailers registered in Scotland and their respective supply chain partners.

This thesis contributes to SSCM research in SMEs by exploring from both the conceptual and empirical points of view, investigating fashion SMEs' sustainability and SSCM and developing a conceptual sustainability performance rating model. This conceptual model uses multidimensional sustainability measurement criteria derived from the literature to determine sustainability performance levels from the farm to the retailer. Evaluation of the supply chain is likely to aid supplier selection, sustainability comparison and transparency. The investigated fashion SMEs and their supply chains are used to exemplify the usefulness of the proposed conceptual sustainability performance model. Based on the supply chains investigated, both retailers' sustainability performances are similar, while one supply chain outperformed the other. In addition, the research findings show that SME retailers face the greatest challenge in managing supply chain sustainability, while the most influential suppliers can develop creative approaches to diffuse sustainability within the supply chain. This thesis suggests that there is considerable need for further qualitative research and the proposed model perhaps needs to be implemented in various business models to evaluate its validity.

Keywords: *Corporate social responsibility; sustainability; sustainable supply chain; sustainable development; supply chain performance; overall performance.*

1 Table of Contents

List of Figures

List of Tables

Table of Appendices

List of Abbreviations

AA	AccountAbility
ABS	Association of Business Schools
AHP	Analytic Hierarchy Process
ATM	Automated Teller Machine
BBC	British Broadcasting Corporation
BCG	Boston Consulting Group
BSC	Balanced Score Card
CEIS	Community Enterprise in Scotland
CEO	Chief Executive Officer
ChetCo	Chetna Organic Coalition
CO_2	Carbon dioxide
CoC	Code of Conduct
CSR	Corporate Social Responsibility
EC	European Commission
EMAS	The EU Eco-Management and Audit Scheme
EMS	Environmental Management System
EOL	End of Life
ERT	Entrepreneurship Theory
EU	European Union
GDP	Gross Domestic Production
GMO	Genetically Modified Organism
GOTS	Global Organic Textile Standard
GRI	Global Reporting Initiative
HTA	Harris Tweed Authority
INT	Institutional Theory
ISO	International Organisation for Standardization
JSTOR	Journal Storage
KBEM	Kanji Business Excellence Model
LCA	Life Cycle Assessment
LE	Large Enterprise
LRC	The Learning Resource Centre
MIT	Massachusetts Institute of Technology
MNC	Multinational Corporation
NFR	Non-Financial Reporting
NGO	Non-profit Organisation

NRBV	Natural Resource Based View
QMU	Queen Margaret University
RBV	Resource-Based View
SA	Social Accountability
SAC	Sustainable Apparel Coalition
SCM	Supply Chain Management
SME	Small and Medium Enterprise
SNT	Social Network Theory
SSCM	Sustainability in Supply Chain Management
ST	Stakeholder Theory
TBL	Triple Bottom Line
UK	United Kingdom
UN	United Nations
UNFCCC	United Nations Framework Convention on Climate Change
USD	United States Dollar
WFTO	The World Fair Trade Organisation

CHAPTER 1

1 Introduction

1.1 Introduction to the research

This thesis focuses on small and medium (SME) fashion businesses that are based in Scotland and inspired by sustainability. Sustainability is defined as meeting the triple bottom line (TBL) of economic, social and environmental expectations (Elkington, 1998). Scholars have concisely discussed sustainability in supply chain management (SSCM) based on the TBL concept and its integration of the three dimensions into the supply chain (Carter and Rogers, 2008). Increasingly, businesses are held responsible for their suppliers and it has been suggested that all three components of the TBL should extend to every link of the supply chain (Seuring and Müller, 2008; Seuring and Gold, 2013; Ahi and Searcy, 2015). Studies show that negative sustainability issues along the supply chain could lead to a decline in financial performance (Siltaoja, 2014; Feng et al., 2018) or a loss of competitiveness (Sajjad, Eweje and Tappin, 2015; Schulz and Flanigan, 2016; Ding et al., 2019). The literature on SSCM is rapidly developing, yet to date SMEs and their supply chains have mostly been overlooked (Majumdar and Sinha, 2018; Jia, Zhang and Chen, 2020).

While price and style have led to ephemeral choices, sustainability has moved from the abstract to a well-recognised business expectation (Amin-Chaudhry, 2016). The fashion industry is one that continues to attract significant attention. Although some internal sustainability practices have become known (Cohen, Holder-Webb and Khalil, 2017), there is no clear understanding of how (and if) SME fashion organisations diffuse (or extend) sustainability beyond business ownership and direct control (Spence, 2016; Karaosman et al., 2018; Delbufalo, 2018).

Research on sustainability-inspired fashion SMEs is significant as they adopt sector-specific initiatives and are generally quick to respond to stakeholder expectations as they are under conditions of extreme uncertainty, unlike large mainstream organisations. Additionally, they might adopt unique approaches to managing sustainability in the supply chain. Therefore, an investigation of them may bring new contributions to the research field.

This chapter outlines an overview of this research and highlights the research significance and novelty.

1.2 Research background

Current evidence suggests that the fashion industry is in a serious predicament due to unsustainable patterns of development and firms are increasingly being challenged to seriously consider environmental and social issues (Thomas, 2020). The fashion industry has always had a bad reputation for unsustainable practices; both the environment and society have suffered because of unsustainable production processes and sourcing methods (Burke, 2015; Hall, 2018). Moreover, the fast fashion revolution has created new production and consumption patterns that have accelerated the unsustainable behaviours. As noted by Schor (2011), 'the modern production systems drive businesses to use natural resources at a hyper-speed and the consumer system makes the resulting products redundant almost as fast, it is a recipe for disaster' (p. 29).

Hence, many well-established fashion brands have shown greater attention to building sustainability. It is important to acknowledge that efforts to tackle sustainability issues are not limited to well-established brands, nor is the environmental and social footprint of products and services limited to a single entity (or production stage) (Nawrocka, Brorson and Lindhqvist, 2009); environmental and social issues occur across the entire supply chain (Hutchins and Sutherland, 2008). The outsourcing of labour-intensive production, free trade and globalisation have resulted in diverse supply chains to the extent that buying firms find it challenging to even identify their supplier base (Lund-Thomsen and Lindgreen, 2014; Egels-Zandén and Hansson, 2016; Lund-Thomsen and Lindgreen, 2018).

Over the past decade, industry supply chains have been scrutinised for a countless number of questionable practices (Posthuma and Bignami, 2014; Amin-Chaudhry, 2016; Yawar and Seuring, 2017). For example, the collapse of Rana Plaza in Dhaka, Bangladesh, one of the subcontractors to a high-street fashion retailer, remains one of the worst industrial accidents in recent history. The accident killed more than 1,100 workers and injured over 2,500. The entire fashion industry fell under heavy public scrutiny, yet, more than five years after the disaster, not enough has been done to safeguard factory workers (Burke, 2015). Examples that are more recent include the devastating factory fires in Ali Enterprises in Pakistan and Tazreen Fashions in Bangladesh.

The aftermath of these devastating disasters has increased public and political pressure to create safe and healthy working environments (Clean Clothes Campaign, 2018). However, industry advocates have highlighted that the fashion industry continues to adopt harmful business practices, damage the environment, and inflict injury and death upon millions of workers across the world. A recent Boston Consulting Group (BCG) report has projected that work-related injuries in the industry will reach 1.6 million by 2030 (Globalfashionagenda.com, 2017). It is argued that corrective measures have not gone far enough to address the underlining issues affecting the industry. The industry still lacks a proper mechanism to prevent any such future disasters (Nittle, 2018).

Workers within suppliers' facilities face questionable health and safety standards, for example exposure to hazardous chemicals, lack of safety equipment and forced overtime. Industry minimum wages are less than half of what can be considered a living wage (Globalfashionagenda.com, 2017). A 2019 Oxfam report reveals that fashion industry workers in Bangladesh and Vietnam have been left starving because of low wages (Martin, 2019). Recently, Nike was pressured to ensure that workers in their suppliers are paid fair wages (Amed et al., 2019). A 2016 BBC investigation exposed the exploitation of Syrian refugees in one of the largest Turkish garment factories producing fashion merchandise for well-known high-street retailers in the UK (BBC News, 2016). Factory workers in a Cambodian production facility reported working 10- to 14-hour days, in extreme heat, without breaks or access to drinking water (McVeigh, 2017). Some of these workers spend almost 14 hours a day in 'sweatshop'-like working conditions in exchange for a few dollars while dealing with mental and physical abuse. Media channels frequently disclose the life-threatening situations these factory workers face daily (Burke, 2015). Often, the most vulnerable to such exploitation are women and young workers.

Moreover, many traditional business models continue to focus on monetary results, short-termism and adopt competitive approaches that benefit the few at the expense of society as a whole (Aras and Crowther, 2009a; Gore, 2013; Klein, 2014). Increasingly, this narrow pursuit of contemporary business objectives is strongly contested (Castells, 2012; Castelló, Morsing and Schultz, 2013).

The industry continues to harm the environment at an unsustainable rate. Each year the fashion industry produces about 80 billion garments, creating a considerable water footprint. Nearly 79 billion cubic metres of water is used during the fashion production

stage. The Global Fashion Agenda and the BCG anticipate that water use will have increased by 50% before 2030 (Globalfashionagenda.com, 2017). A European Clothing Action Plan (2019) report identified that more than 43% of all fibres used in the EU is cotton, which requires huge quantities of land, water, fertilisers and pesticides (Europarl.europa.eu, 2019).

Other aspects of textile processing are notorious for high natural resource usage. The colouring process contaminates local lakes and rivers, affecting the health and well-being of local communities. The World Bank has reported that more than 72 toxic chemicals are dispersed into the water supply during textile dyeing (LaRose, 2017). The UNFCCC reports about 1.2 billion tonnes of greenhouse gas emissions from textile production, which is projected to increase by 60% to nearly 2.8 billion tons by the year 2030 (Globalfashionagenda.com, 2018). Industry often ignores ethical issues such as human trafficking, body shaming, corruption, inequality and negative body image.

Considerable literature, consumer surveys, and industry reports suggest that consumer awareness exerts significant pressure on businesses to implement sustainable practices (Hartmann and Moeller, 2014; Lavorata, 2014). Consumers are more interested in mission-based brands and sustainability is at the top of consumer wish lists. Initiatives such as ‘who made my clothes’ and ‘buy less, choose well’ are creating a fashion revolution, and anti-consumerism campaigns such as ‘live simply so others may simply live’ and ‘more love, less shopping’ are trending. A McKinsey & Company global survey found that more than 87% of consumers in developed economies are very concerned about business behaviours and their overall impact (Bonini and Oppenheim, 2008). A recent survey suggests that there is an increasing demand for supplier traceability and transparency (Globalfashionagenda.com, 2018).

1.2.1 Research gap

Usually, buying organisations tend to drive suppliers to adopt sustainability practices through various instruments and tools such as certifications and standards during supplier selection to avoid risk and uncertainty (e.g. image, reputation, disruption and dependency). Consequently, suppliers are likely to meet the minimum selection requirements perhaps without seeing the direct benefits or value (Caniëls, Gehrsitz and Semeijn, 2013). Moreover, the most influential or lead organisation generally attempts to implement a supplier assessment and develop strong relationships to facilitate the

diffusion or extend sustainability practices (Beske, Land and Seuring, 2014; Ağan et al., 2016).

Consequently, the diffusion of sustainability practices between purchasing organisations and suppliers is largely influenced by supplier selection, supplier performance evaluation and supplier development practices. Despite the significant body of literature on SSCM, there is an absence of theory to explain how environmental and social sustainability practices are diffused or extended across the supply chain, especially from an SME context.

The existing literature focuses mainly on environmental (or green) sustainability practices (e.g. Seuring and Müller, 2008; Sarkis, Gonzalez-Torre and Adenso-Diaz, 2010; Amed et al., 2019). There has been a low focus on the conditions for multidimensional sustainability. Addressing both environmental and social sustainability practices can support firms to meet overall sustainability objectives (Varsei et al., 2014) and evaluate overall sustainability performance (Marshall et al., 2015a).

Despite the growing need for sustainability development in supply chains, many SMEs struggle to extend supplier sustainability. They are often reluctant to respond to supplier traceability and transparency demands (Doorey, 2011). However, while industry reports suggest that SMEs in the fashion industry have a significant opportunity to secure a prosperous future with rapid growth sustainable fashions worldwide, in order to drive the sector towards long-term prosperity they need to enhance sustainability capacity and develop supplier sustainability performance (Gold Seuring and Beske, 2010a).

Further, the literature has paid attention mainly to direct (or first-tier) suppliers (e.g. Beske-Janssen, Johnson and Schaltegger, 2015), while subsequent suppliers in the supply chain are overlooked (Holt and Ghobadian, 2009). In general, research related to multitier sustainability is still in its infancy and any empirical research on SME sustainability beyond the direct supplier (or first tier) could significantly contribute to knowledge. There is little knowledge about the factors that influence buying (or second- and third-tier) firms and how they verify supplier sustainability conditions across the supplier base. Mena, Humphries and Choi, (2013) conducted multiple case research on the food sector and proposed a theory of multitier supply chain management and specific relationships among supply chain partners. The authors concluded that ‘more organisations forging relationships across supply networks for reasons, such as

sustainability and suggested that research in the future needs to examine multitier supply chain (Fraser, Müller and Schwarzkopf, 2020).

Mostly multi-industry and individual case study research have dominated the sustainability literature to date and the dynamics relating to sustainability in multitier supply chain have been significantly underexplored (Soni and Kodali, 2011; Wilding et al., 2012a; Winter and Knemeyer, 2013; Ashby, 2016).

This research therefore addresses the gap in knowledge of how buying firms engage with their direct and indirect suppliers to influence the diffusion of environmental and social sustainability practices. Moreover, it addresses the gap in knowledge of how buying firms verify that expected environmental and social sustainability practices meet (or comply with) the specifications set by the brand (or retailer). These provide useful insight for the brand (or retailer) and suppliers to implement sustainability within their entire supply chain.

The in-depth investigations of each supply chain partner within a single industry help frame the findings through within-case and cross-case analyses to draw knowledge and close the gap, allowing conclusions related to the scope. Furthermore, to add richness to this research, multiple theoretical lenses are applied as an organisational theory background. Organisational theories have the power to explain a phenomenon and can drive the creation of knowledge (Boer et al., 2015).

1.2.2 Research aims and objectives

To develop a more structured literature review, the research established several initial aims and objectives. This enabled the identification of the initial research fields, which led to a more focused investigation of literature in sustainability and SSCM.

1.2.2.1 Research aims

The PhD project's overreaching aim is to: provide insight into sustainable practices adopted by SME fashion retailers and the approaches adopted by each buying firm to enhance the diffusion of environmental and social sustainability practices across the supplier base.

As illustrated in Table 1-1, the aims inform the preliminary investigation position. The initial aim of the research is to investigate how each supply chain partner defines and interprets the dynamic concept of sustainability and understands how it is

operationalised. Next, this research explores the environmental and social sustainability practice diffusion within the multitier supplier base and identify how each buying organisation influences and verifies environmental and social performance across multitier supply chain. Finally, propose a sustainability performance and supplier sustainability performance rating model for evaluating supply chains based on sustainability performance.

Study Aims	**Preliminary Investigation**
Concept Definition	How is sustainability defined? How is sustainability interpreted in supply chain? How is sustainability defined in SMEs?
Business Practice	How do SMEs address sustainability? How do SME buying organisations diffuse SSCM? How do sustainability and SSCM affect the SMEs structure and process?
Balance	How do SMEs prioritise multidimensional sustainability performance? How does sustainability performance affect supplier selection? How do SMEs evaluate supplier sustainability performance?
Theory	What theoretical constructs address SSCM? How can diffusion of SSCM inform theory? How do SME buying organisations influence and verify sustainability performance?

Table 1-1 Initial research aims

This research started with a general inquiry about the adoption of sustainability practices across the entire supply chain in order to understand how scientific knowledge has been covering the subject, to use the existing knowledge to develop new insights from an SME perspective. However, during the initial pilot study it was uncovered that SMEs often face concerns regarding supplier transparency and the disclosure of supplier information; these obstruct source privacy. Exposing the supplier information might encourage supply chain duplication, which may lead to a commercial disadvantage. Therefore, this research seeks to overcome this by developing a conceptual model that rates (or ranks) the sustainability performance of each supply chain member and rates (or ranks) the sustainability performance of the entire supply

chain. The application of the model has significant potential to almost every business and industry type.

To address this overarching research aims the following five research objectives have identified.

1.2.2.2 Research objectives

- The first objective of this research is to provide a deeper knowledge of how the selected sustainability-inspired SMEs implement sustainability commitments within their business premises.
- The second objective is to improve knowledge on how SMEs seek to extend sustainability commitments within their supplier base. Further, it is to examine how fashion retailers' (or buying organisation) sourcing practices meet sustainability expectations and what steps the buying organisation take to influence and verify sustainability in suppliers, who are beyond organisations hierarchical span of control, to maintain ethical, environmental and social sustainability.
- The third objective is to explore the challenges that SMEs perceive in the implementation of sustainability within a multitier supply chain, examining the challenges associated with verification and identifying the contextual factors influencing sustainability in supply chains.
- The fourth objective is to understand how SMEs can the three dimensions of sustainability.
- The fifth objective seeks to understand how sustainability implementation affects the potential to entice SMEs to transform their decision-making, organisation structure, and business processes to maintain extended supplier sustainability.
- The sixth objective is to identify multidimensional sustainability performance evaluation criteria with the aim to evaluate organisational and supply chain sustainability performance in terms of social, environmental, and economical performance and finally to propose conceptual model to evaluate of supply chain sustainability performance.

1.2.3 Research questions

The research proposes four research questions to gain in-depth insight into SMEs' sustainability practices and investigate how sustainability is diffused within the supply chain. The research questions evolved from problem identification, in-depth literature

reviews and a preliminary pilot case study. The finalised research questions are as follows:

Given individual organisations have control over their ethical, environmental, and social practices: RQ 1: How can fashion industry small and medium buying organisations exercise influence over actors in a supply chain?

Given individual organisations establish their own sustainability specifications: RQ 2: How can fashion small and medium organisations verify that actors in the supply chain meet buying organisations' sustainability specifications?

Considering the increasing stakeholder demand for sustainability: RQ 3: How can fashion industry small and medium organisations and their supplier base achieve a balance in multidimensional sustainability expectation?

Considering the increasing stakeholder demand for sustainability in the supply chain: RQ 4: What effect will it have over the structure, processes and flow of the supply chain?

The research questions are proposed based on an understanding of the literature and are designed to achieve the aforementioned research aims. The research questions remain subjective in nature and emphasise examining sustainability diffusion across the whole supplier base. The research intends to answer the questions to describe, explain and understand the phenomenon using multiple case studies and frame the findings using multiple theoretical lenses.

1.2.4 Research scope

Narrowing by study area is useful to highlight the boundaries of the research and construct the related literature search. This research is located at the intersection of 'sustainability', 'corporate social responsibility', 'entrepreneurship' and 'supply chain management'. The interconnection between study fields shows the relation with the research field. Figure 1-1 illustrates the scope of the research.

Figure 1-1 Research scope

A literature review was important to understand the relevant concepts and how it is applied to business. A review of the industry-specific literature, with an emphasis on SMEs, was significant in structuring this research. However, the literature search was limited to journals produced in English and for quality purposes searches were limited to journals rated between 2* and 4* in the ABS journal classification.

1.3 Research process

Once the research aims and objectives were identified, the research process was developed and mapped as illustrated in Figure 1-2. The process was not purely sequential, and the literature review process was continuous during the entire research. The initial pilot study and the primary case study restructured the research process.

The information derived from the pilot study, literature review and industry findings helped identify the specific line of enquiry and informed the research area to be more focused.

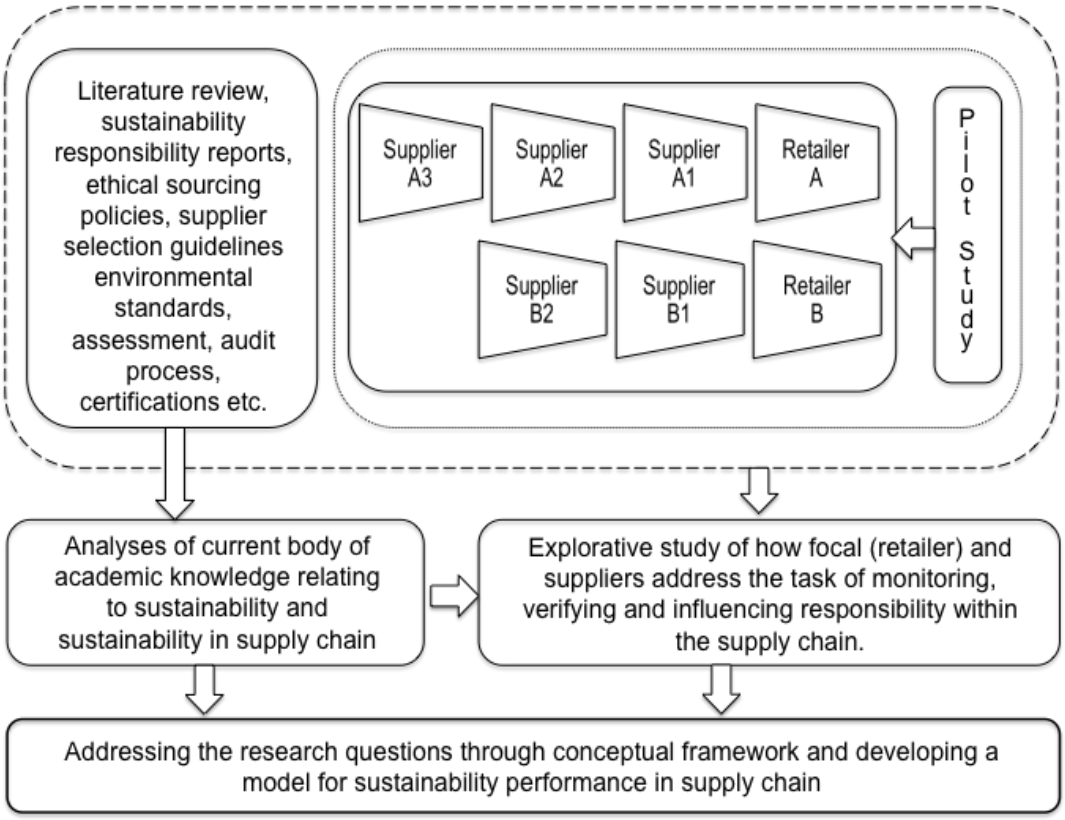

Figure 1-2 Research process guide

Academic literature, fashion industry reviews, sustainability reports, industry standards and the pilot study informed the sampling criteria and the research process. Given the dynamic nature of the field, the literature had to be revisited from time to time to reflect on the findings and to ensure it was up to date during the research.

Owing to the exploratory nature of the research questions, a qualitative approach was adopted in this research. Data were collected through semi-structured interviews, sustainability reports, company information and internal documents. To make sense of the data, they were grouped into themes and a thematic analysis was produced. The emergent findings were then analysed. First, using within-case and cross-case analyses, this research was able to explore sustainability practices and sustainability in the supplier base. Second, the distribution of sustainability using the TBL framework was evaluated. Third, the behavioural and structural influence of the diffusion of supplier sustainability was examined. Finally, the overall sustainability performance of the investigated supply chains was explored.

1.4 Thesis structure

Chapter 1 presents an overview of the thesis, including the research background, research gap, research aim and objectives and research questions as well as the thesis layout.

Chapter 2 explores the current development in knowledge relating to sustainability and supply chain including sustainability in supply chain. Followed by an overview of the fashion industry and introduction to small and medium enterprise including sustainability development. The chapter defines the SME and investigates how sustainability is defined and interpreted as well as identifying key drivers and challenges for sustainability. The critical literature review enabled the researcher to explore the research gaps and present the key concepts related the sustainability in supply chain activities and environmental and social sustainability practices within the SME in the fashion industry. Chapter explored literature to develop multidimensional sustainability measurement criteria to design a sustainability performance model. Further, literature uncovered the key drivers and influential organisational factors for diffusion of sustainability practices across supplier base. Thesis then introduces key organisational theoretical lenses through which the subject is examined. The discussed theoretical lenses add richness and academic rigour to the research analysis. The findings facilitate the development of the conceptual framework.

Chapter 3 sets out the philosophical paradigm of this research. The chapter identifies an appropriate research methodology and details the focused research questions. The rationale for the chosen philosophical and methodological approach is discussed and the data collection method is specified. Then, the empirical design is presented highlighting the adopted data collection and analysis.

Chapter 4 presents the case findings and analysis of two in-depth case studies. The chapter discuss the investigated two sustainability inspired SME fashion industry retailers registered in Scotland U.K. along with their supplier base (i.e., first-tier, second-tier and third-tier suppliers), which provides the empirical evidence for the research. The SME and their supplier practices can advance the understanding of the diffusion of sustainability practices across the supplier base. The chapter presents two within-case and a cross-case analysis. Investigation revealed emerging key general and specific themes, which were applied to the triple bottom line principle to identify the dominant performance criteria and findings were further analysed through the structural

and behavioural change framework to identify factors that contribute to change in structure and process in SMEs. The findings are further discussed based on the conceptual framework.

Chapter 5 identifies the contribution to the knowledge. Limitations of the research and the opportunities for further research are also presented.

1.5 Research contribution

This research offers the opportunity to add knowledge from social science disciplines to support a more holistic examination of sustainability in supply chain (e.g. Köksal et al., 2017; Moretto et al., 2018). SSCM research to date has mostly revolved around large enterprises (LEs), while SMEs are underexplored (Kot, 2018; Yacob, Wong and Khor, 2019). This is a response to the call for underexplored research in SMEs relating to environmental and social sustainability in supply chains (e.g. Ahi and Searcy, 2015; Yawar and Seuring, 2017; Wang, Zhang and Goh, 2018).

The literature mainly discusses either financial or environmental sustainability (e.g. Cantele and Zardini, 2018; De Mendonca and Zhou, 2019) and only a few attempts have been made to combine the three dimensions (e.g. Pagell and Wu, 2009; Aras, Tezcan and Furtuna, 2018; Ceptureanu et al., 2018; Alshehhi, Nobanee and Khare, 2018). This research represents one of few research projects that aim to address the three dimensions of sustainability framing through established organisational management theoretical lenses. No recent research has investigated all three dimensions of sustainability at different phases (from farm to retailer) of the supply chain and investigated the overall supply chain sustainability performance.

The research findings hold empirical evidence for collaborative approaches for sustainability development, which can be seen as promising routes towards sustainability in supply chains (Lee, Walker and Zeng, 2017). Evidence suggests that SMEs build their supply networks on trust and integrate the wider community into the decision-making process (Abbasi, 2017). The findings offer the potential to generate new understandings and enhance sustainability diffusion across the supplier base.

1.5.1 Academic contribution

This research is perhaps one of the first in Scotland to embark on a multitier supplier investigation that examines the most relevant organisational theories to strengthen the

findings on sustainability diffusion across the supplier base that advance SSCM research in a new direction.

This research explores (i) SMEs' (or retailers') sustainability practices, (ii) buying firms' (or suppliers') sustainability practices, (iii) factors influencing sustainability in supply chains, and (iv) buying firms' (or suppliers') approaches to monitoring and verifying supply chain actors' (or suppliers') sustainability practices. The findings contribute to contextualising the influencing factors and the dynamics of verification in SSCM: how SMEs in the fashion industry expand sustainability practices beyond direct (or first-tier) suppliers. In this regard, the findings contribute to the SSCM literature from an SME context that is found to be extremely inadequate.

This research enriches the SSCM field by adopting multiple organisational theories. The application of multiple organisational theoretical lenses rather than a single theory translates into a novel conceptual approach to understanding and analysing SSCM in SMEs. The key output from the research project is the sustainability performance model that rates (or ranks) buying firms and suppliers based on the organisations' sustainability performance and supply chain's sustainability performance.

1.5.2 Practical contribution

The findings present a rich picture of fashion industry SMEs' sustainability and sustainability in supply chains, which provides important implications for managers and practitioners.

Increasingly, organisations are required to trace and map suppliers in their supply chain. According to industry reports, it is important to know where every part of the clothing is made, from farm to mill\ to factory (Noble, 2017). They encourage supplier information to be publicly available, which is arguably the first step in holding organisations responsible for sustainability development (Fashion Transparency Index 2020, 2020). However, most suppliers and supplier information about sustainability practices remain concealed. The general information available is far from comprehensive and current sustainability reporting focuses mainly on LEs, whereas SMEs are overlooked.

This research proposes a sustainability performance model that assesses sustainability performance rating (or ranking). This previously unknown sustainability performance

information includes the entire supply chain's sustainability performance. Crucially, buying firms can use this model to evaluate overall sustainability performance.

1.6 Summary of the chapter

The introductory chapter presented the rationale and purpose of the research. The specific questions the research aims to address were introduced, together with some background information about the industry and an overview of the structure of the thesis; finally, the contributions the research makes to both theory and practice were outlined.

In order to make a lasting contribution and develop a more focused research, it is important to establish the research aims and process.

CHAPTER 2

2 Literature Review

2.1 Introduction

This chapter presents the literature review within the academic field of sustainability and investigates the literature on environmental and social sustainability in supply chains. Empirically, this research is situated within the SME fashion industry; therefore, the industry literature and SME literature are reviewed to establish the context of the research inquiry.

The purpose of this chapter is to frame the analysis of investigated buying (i.e. retailer, first-tier, second-tier and third-tier) firms' practices to extend supplier sustainability. The review also outlines the sustainability measurement criteria that build the foundation for the proposed conceptual sustainability performance model.

2.2 Sustainability

The publication *Limits to Growth* by the Club of Rome in 1972 was one of the turning points. The report suggested that, if present growth trends continue, the limit to growth on this planet will rapidly be reached. Unless necessary measures are taken now, considering the rate humanity is using scarce natural resources, there is no doubt that the future of civilisation is uncertain (Munier, 2005). Researchers from MIT (Massachusetts Institute of Technology) warned of the danger of exponential economic and demographic growth (e.g. world population, industrialisation, production), the depletion (or exhaustion) of natural resources (e.g. energy, water and soil), and overexploitation (Martin, Maris and Simberloff, 2016). They highlight that all natural systems have limits and we need to live within those limits.

The term sustainability has been often expressed as a concept that has no one clear definition (O'Dwyer and Owen, 2005). Many definitions and interpretations of sustainability have been submitted. Brundtland Commission's (1987) definition of sustainability has been the most widely cited: 'development that meets the needs of the present generation without compromising the ability of future generations to meet their own needs' (p. 16). Sustainability is an elusive concept, and the definition is relatively vague, which underlies complexities of sustainability (Redclift, 2005). The definition seemingly suggests that human needs must come above any other inhabitants (Borland and Lindgreen, 2013).

Sustainability has evolved from early involvement in environmental issues (e.g. Sarkis, 2001; Shrivastava and Kennelly, 2013) to deal with social issues (e.g. Haugh and Talwar, 2010; Closs et al., 2011). The literature now recognises that sustainability is a multidimensional concept; as such, it is balanced on the three pillars, namely economic, environmental and social sustainability (Caniato et al., 2012; Shen, 2014; Jia et al., 2015). It is regularly presented in the form of three intersecting circles of economic, environmental and social, with sustainability at the intersection of the three, which corresponds to the area where all three dimensions overlap. John Elkington popularised sustainability with the principle of the triple bottom line (TBL). Milne (1996, p. 137) suggests that 'sustainability is about integrating economic, environmental and social values.' Similarly, Altieri (1995), Custance and Hillier (1998) and Rahdari, Sepasi and Moradi (2016) considered the balanced integration of goals. Another notable term is the 'three Ps' – profit, planet and people (Elkington, 1998; Cherp, Watt and Vinichenko, 2007; Seghezzo, 2009). The goal is to simultaneously achieve equilibrium in the profits, planet and people dimensions; see Figure 2-1.

Contrasting with this integrated approach, Goodland and Daly (1996) looked to distinguish the three dimensions of sustainability. Their view is that it is best to analyse each type of sustainability separately. Yet, the majority of literature leans towards a more integrated approach, concluding that sustainability requires the subordination of economic criteria considering the environmental and social values.

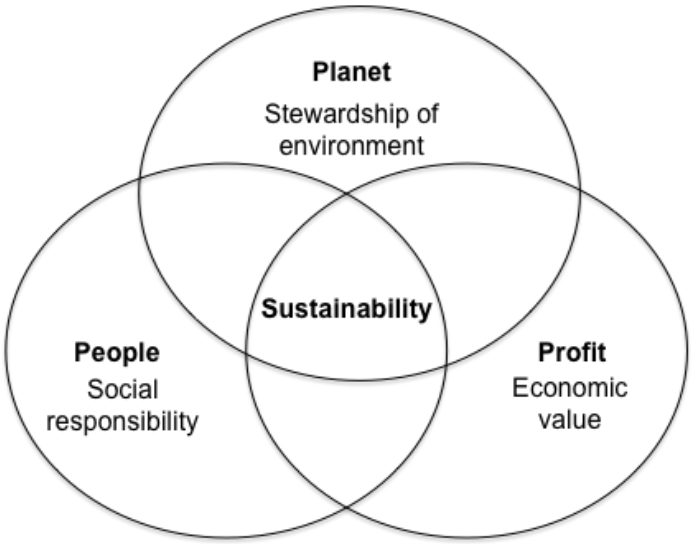

Figure 2-1 Visual illustration of the intersection of the three sustainability dimensions Adopted from Elkington (1998) cited in Smith (2016)

The literature review further uncovered alternative pillars that support sustainability (e.g. moral, ethical, political, legal, technological and culture) (Grinde and Khare, 2008; Banerjee, 2011). Grinde and Khare (2008) discussed the 'triple E' perspective of environment, economy and (social) equity. These diverse terms are interchangeable and the preference for 'dimensions' (e.g. Moir and Carter, 2012), 'perspectives' (e.g. Arushanyan, Ekener and Moberg, 2017) or 'pillars' (e.g. Boyer et al., 2016) is largely arbitrary. The dimensions (or pillars) unite through synergies and arbitrations.

TBL considers that for a business to achieve sustainability it must be financially secure, minimise (or ideally eliminate) the organisation's negative environmental impacts and act in accordance with social expectations (Pagell and Wu, 2009; Haddach, Ammari and Laglaoui, 2016). Schrettle et al. (2014) interpreted sustainability as the ability to meet the needs of direct and indirect stakeholders without compromising the firm's ability to meet the needs of future stakeholders. The rationale of the concept is to make organisations aware of the environmental and social outcome of their product (or process), so they can protect, sustain and enhance the human and natural resources that will be needed in the future.

Businesses are encouraged to commit to the UN's global compact and engage in universal declarations (e.g. human rights, international labour standards and environmental development) (Garcia-Torres et al., 2019). Therefore, it is implicit that organisations have an important role in developing sustainability through (i) redefining corporate strategies to include sustainability in all operations, (ii) redesigning processes, products and services, (iii) collaborating to develop and implement local and international principles, (iv) developing indicators to compare sustainability performance, (v) introducing sustainability reports and standards, and (vi) promoting transparency and openness.

However, there is considerable confusion around the breadth and interpretation of the term sustainability. There is no rigid framework for sustainability. Interchangeable and inconsistent use of terminology has contributed to the confusion. Some studies have used sustainability to primarily refer to environmental performance (Yan, Chen and Chang, 2009). Others have used the term for social performance (Alhaddi, 2015), while some have used the term to represent all three (Faber et al., 2010). Arguably, the terms are ill-defined (Moon, 2007; Vermeulen and Seuring, 2009), oversimplified and at times contradictory (Grinde and Khare, 2008; Banerjee, 2011), as well as open to misuse (Werbach, 2009).

The literature suggests that, despite the developments, the notion of sustainability remains undertheorised (Weingaertner and Moberg, 2014; Hajirasouli and Kumarasuriyar, 2016). There is also the concern over whether sustainability is attainable considering the current economic-biased frameworks. Scholars have argued that it is impossible to separate social aspects from environmental aspects (e.g. demolishing ecosystems for social well-being; use of natural resources for economic growth) (Gibson, 2006). Most sustainability models suffer from the same criticism. They assume that dimensions are independent and fail to incorporate the time dimension.

On the other hand, Aras and Crowther (2009b) challenged the role and relevance of sustainability. If the basic principle of sustainability is that decisions made in the present do not limit future choices, then development is neither necessary nor desirable. However, the importance of the concepts needs to be acknowledged because sustainability represents the strategic process for achieving organisational goals.

2.2.1 Business sustainability

Business sustainability can be described as the adoption of the sustainability concept to organisations or, in other words, incorporating sustainability goals into business objectives (Lee and Saen, 2012). The literature suggests that organisations benefit by acting holistically to reach a synergy between the three dimensions, generating economic growth while protecting the environment and being socially responsible (Tomšič, Bojnec and Simčič, 2015). Ghoshal maintained that 'organisations survive and prosper when they simultaneously pay attention to the interests of customers, employees, shareholders, and perhaps even the communities in which they operate' (Ghoshal, 2005, p. 81). However, Milton Friedman argued that corporations' real social responsibility is to make money for their shareholders. This seems to be overly narrow; as such, overall stakeholder expectations might negatively affect business profitability. Further, shareholders might have an intrinsic interest in environmental or social development beyond profit maximisation (Wiley, 2016).

On the other hand, Porter and Van der Linde (1995) viewed sustainability as a source of competitive advantage. Similarly, McWilliams and Siegel (2011) classified sustainability as a strategic resource. Therefore, Klewitz and Hansen (2014) advocated for the integration of environmental and social expectations into the vision and value of the organisation. However, owing to heterogeneous organisational characteristics and stakeholder expectations, not all organisations interpret or implement sustainability in the same way (Freeman and Hasnaoui, 2011; Moore, De Silva and Hartmann, 2012).

Some organisations place greater emphasis on the economic and environmental aspect of sustainability, while some emphasis on social aspect (Moore, De Silva and Hartmann, 2012). Scholars have maintained that, if an organisation fails to support one of the dimensions, they do not operate sustainably (Evans et al., 2017; Braccini and Margherita, 2018). However, many organisations struggle to address all three; there is inherently a trade-off between the expectations (Kiel et al., 2017).

From a theoretical perspective, the three sustainability dimensions are evenly balanced. Therefore, for the perfect sustainability condition the three dimensions need to be in balance; see Figure 2-2-4. However, owing to imperfect conditions, the sustainability dimensions will hardly ever be in equal balance; as depicted in Figures 2-2-2 and 2-2-3, the larger circle around the smaller circle shows the diffusion of planet (or environmental) and people (or social) aspects, so directing resources towards a

more balanced approach. Many studies suggest that, as depicted in Figure 2-2-1, the profit (or economic) dimension takes priority over other dimensions, followed by an emphasis on planet (or environmental) dimension and minimum emphasis on the people (or social) dimension (Kusumarini, Ekasiwi and Faqih, 2011).

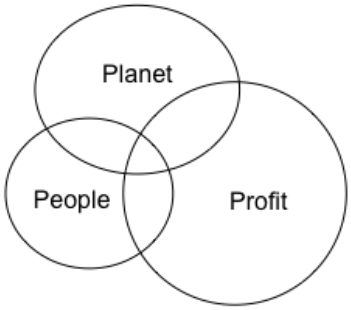

Figure 2-2-1 TBL Sustainability reality

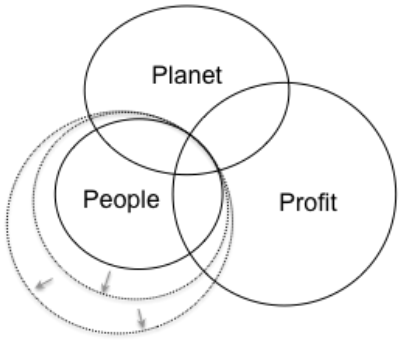

Figure 2-2-3 Social sustainability expectation

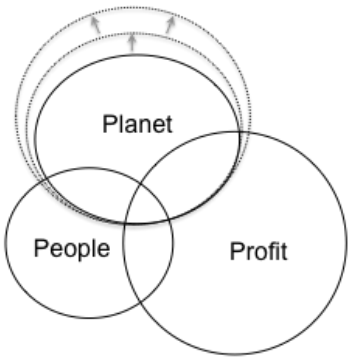

Figure 2-2-2 Environmental sustainability expectation

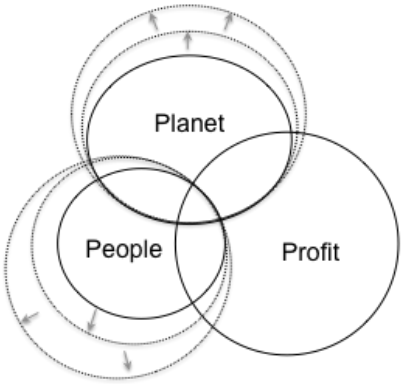

Figure 2-2-4 TBL sustainability expectation

Figure 2-2 TBL sustainability reality and expectation
Adopted from Kusumarini, Ekasiwi and Faqih (2011)

Critics question the extent to which the dimension can be integrated and balanced, mainly because the dimensions are interdependent. It is difficult to treat them separately and there is an inherent assumption of a trade-off between them (Gružauskas, Baskutis and Navickas, 2018; Goebel et al., 2018). Scholars have criticised the subjective nature of the dimensions and the inability to quantify sustainability aspects. Sridhar and Jones (2013) highlighted several shortcomings: (i) reliability, referring to how effectively dimensions can be measured; (ii) the co-existence of the three – people, planet, and profits – without a demonstration of their interdependence; and (iii) ineffectiveness as a compliance instrument. Despite the shortcomings, the integration of environmental and social aspects arguably helps organisations build long-term growth.

2.2.2 Factors impacting business sustainability

A BearingPoint global survey of 600 professionals from businesses of different sizes, industries and countries highlights regulatory and legislative pressure as the main motivator, while public image, innovation, cost reduction, leadership and new markets are additional factors that impact sustainability (Chardine-Baumann and Botta-Genoulaz, 2014).

2.2.2.1 Regulatory pressure

Increasingly, modern organisations seek to align with sustainability, considering the current and future regulatory and legislative developments (Ageron, Gunasekaran and Spalanzani, 2012; Brockhaus et al., 2016). 'Government is the supreme legislative body and is one of the most important agents for change' (Prado-Lorenzo, Gallego-Alvarez and Garcia-Sanchez, 2009, p. 105); therefore, fines and penalties for non-compliance exert pressure on organisations. Wilding et al. (2012b) and Glass, Cook and Ingersoll (2016) highlighted the significance of a governance mechanism for organisations to appear legitimate and trustworthy among stakeholders. Therefore, compliance with regulatory requirements may improve organisations' reputation.

By contrast, Bowen et al. (2001a) found evidence that there is no correlation between regulatory development and the implementation of environmental and/or social sustainability. Bowen et al. argued that the current regulatory system for sustainability is too vague. Current legislative schemes are often outdated and too inconsistent; they need to be more adaptive, agile and pragmatic in order to be effective (Berger-Walliser and Scott, 2018). Both local and international regulatory principles fail to offer a structured direction; for example, listed organisations are required to disclose information about environmental and social practices, while non-listed organisations are free from regulation. Scholars continue to highlight diverse and vague sustainability disclosure requirements. They question the content of reports, verification of information and entire reporting processes (Hahn and Kühnen, 2013; Higgins and Larrinaga, 2014; Wilburn and Wilburn, 2016).

Various standards and certifications drive business sustainability implementation, for example the ISO 26000 standard for social responsibility, the Global Reporting Initiative (GRI) for organisational disclosure, the SA8000 standard on work relations and the AA1000 standard to guide the auditing process. Zhu and Sarkis (2006) maintained that the 'Kyoto Protocol' requirement guides organisations to minimise

greenhouse gas emissions. However, the literature reveals that costs of adopting these standards and certifications often remain a major drawback (Brewer, 2019). The complexity associated with meeting regulatory requirements may require additional support (e.g. auditors, consultants) that increases the cost (Lion et al., 2016). Nevertheless, some organisations undertake sustainability measures that are above and beyond the existing regulation and legislation requirements.

2.2.2.2 Market pressure

One of the most influencing factors is public image. Consumers are mindful of corporate behaviour and exhibit a growing preference for products and services from organisations with sustainability approach.

The growth in global social media (e.g. Twitter, Facebook, Instagram) has accelerated consumer awareness; increasingly negative coverage acts as a coercive force behind organisations' public image (Jayasuriya, Azam and Ferdous, 2017). According to a recent study by Ernst & Young, over two-thirds of UK consumers (68%) class ethical behaviour as important. They found that consumers consider fair treatment of employees (79%), ethical supply chains (76%) and treatment of supplier workers (50%) to be critical factors in making their purchasing decision (Wells, 2018). A study of a group of Finnish mobile phone users revealed that embedding sustainability is more likely to increase customer satisfaction, which leads to improved customer loyalty and brand image (Bask et al., 2013).

Even though the majority of studies find a positive relationship between sustainability and organisational value, more often sustainability initiatives are too costly, and the costs do not always outweigh the benefits. On the other hand, studies suggest that customers often have limited information on organisation sustainability initiatives; a lack of customer awareness of sustainability initiatives means that they unable to respond by rewarding organisations that pioneer sustainability (Servaes and Tamayo, 2013). However, a survey report suggested that the majority of European consumers are not convinced of organisations' sustainability claims; less than 40% expressed any confidence in organisations' sustainability commitments (Glenday, 2020). Further, Berger-Grabner (2018) highlighted the issues of misleading and exaggerated sustainability claims that affect the reputation.

Adopting a creative approach through innovation in value chain, in strategy, and in business model is an important aspect in developing or maintaining sustainability

(Jelinek and Bergey, 2013). Innovation boosts economic, environmental and social performance by providing an opportunity to develop sustainable products and processes. It is an important tool driving sustainability within organisations and plays a critical role in enhancing sustainability performance (Awan, Sroufe and Kraslawski, 2019). At the consumer level, creativity would steer the attention of early adopters. At the company level, creative and innovative developments allow organisations to have a differentiating position that enhances the competitive position. At the society level, creative and innovative solutions would be easier to justify and could build a social support structure (Brem and Puente-Díaz, 2020).

On the other hand, the literature suggests that sustainability has inspired organisations to be more creative and innovative. Hynds et al. (2014) qualitative study in the construction industry indicated that engaging in sustainability initiatives created innovative solutions and business opportunities that could enhance customer value, leading to better customer satisfaction and retention.

Proactive sustainability approaches may improve organisations' ability to attract stakeholders compared to their non-sustainable counterparts, arguably leading to competitive advantage (Hatak, Floh and Zauner, 2015). According to an Austrian winery study, SMEs were able to gain competitive advantage by shifting to sustainability practices (Hatak, Floh and Zauner, 2015). Cantele and Zardini (2018) found evidence of environmental and social practices positively affecting competitive advantage through public image, reputation and customer satisfaction. It has also positively contributed to financial performance.

Further, sustainability practices could improve efficiency by reducing inputs and waste, improving quality and resources usage (Johnson and Schaltegger, 2015). Likewise, a survey by Brammer, Hoejmose and Marchant (2012) found that adopting sustainability practices led to improved efficiency within their business operations. A survey of 166 SMEs found evidence that the organisations could gain significant cost benefits through recycling, reducing packaging and changing their business practices (Gadenne, Kennedy and McKeiver, 2009).

Sustainability practices adopted by competitors or supplier partners may influence organisations to develop their own sustainability practices (Walker, Di Sisto and McBain, 2008; Hsu, Tan and Zailani, 2016).

2.2.2.3 Societal pressure

Different external organisations such as NGOs, consumer associations, value-based networks and community groups, in conjunction with increasing public awareness, pressure organisations to improve sustainability performance (Saeed, Waseek and Kersten, 2017). Increased awareness concerning organisations' misconduct more often results in loss of reputation as well as limits from pressure groups (Govindan et al., 2016).

Sometimes organisations are under pressure to deliver sustainability from their supply chain partners (Zhu, Sarkis and Geng, 2005; Walker, Di Sisto and McBain, 2008). Both buying and supplier organisations are capable of directly influencing each other through sustainability behaviours (Walker, Di Sisto and McBain, 2008). Some suppliers are capable of engaging in product design and innovation and acting as collaborative partners to achieve effective diffusion of sustainability (Bai, Sarkis and Dou, 2015).

Many nations have initiated environmental requirements on imports, for example on fabrics, clothes, and colour dye processes from exporting countries. One of the challenges is the existence of different cultural norms across national backgrounds. In Iceland, it was made illegal to pay men more than women, while other countries struggle to address a whole range of wage inequalities (Henley, 2019). Empirical research suggests that Chinese organisations associate sustainability with philanthropy rather than a moral duty (Zhu and Zhang, 2015), while social sustainability in India suggests a minimum of a 2% contribution of average net profits to social development (Majumdar, 2014). Likewise, in some countries donating waste is a matter of regulatory compliance, while others may consider it sustainability behaviour (Berger-Walliser and Scott, 2018).

2.2.2.4 Organisations' culture and strategy

Increasingly, stakeholder pressure forces organisations to align operations to maintain sustainability. The organisations' obligations to meet stakeholder expectations and moral obligations toward society influence organisations' sustainability practices (Harms and Klewitz, 2013).

Owner (or top management) awareness of sustainability is crucial in influencing sustainability. They are responsible for building the organisations' vision and policies (Bai, Sarkis and Dou, 2015), as well as for developing and incorporating sustainability-

related goals. Management should communicate these to employees within the organisation (Xu et al., 2019). Building an organisational culture that is conducive for innovation and improving existing sustainability practices may drive the organisation toward adopting sustainability practices.

2.2.2.5 Organisations' resources

In general, this includes organisational resources and capabilities (i.e. physical resources, human knowledge and skills, and employees). The allocation of adequate organisational resources to drive sustainability initiatives is significant in the implementation of sustainability practices (Saeed, Waseek and Kersten, 2017).

Resource scarcity and the depletion of natural resources may influence organisations to adopt sustainability practices and improve sustainability performance (Schrettle et al., 2014). An increase in expertise in sustainability management, as well as improvements in partners' and competitor sustainability practices, influences an organisation to be more proactive.

Walker, Di Sisto and McBain (2008) state that employee involvement positively influences sustainability performance. Increased employee development helps maintain knowledge and skills to increase organisations' sustainability-related performance (Carter and Dresner, 2001), reduce wastage and minimise job-related health and safety issues (Varsei et al., 2014).

2.2.2.6 Organisations' characteristics

The literature suggests that an organisation's size directly influences decisions involving sustainability. Reports highlight that LEs experience more pressure to improve sustainability performance than SMEs (Tate, Ellram and Kirchoff, 2010; Ayuso, Roca and Colomé, 2013). However, SMEs face greater pressure from competitors, international market conditions, the local community, and supply chain partners (Yadav and Singh, 2020). Similarly, an organisation's position in the supply chain may directly influence the sustainability-related behaviour of organisations. As stated in the literature, organisations increasingly face pressure to develop relationships with suppliers to achieve sustainability goals (Foerstl et al., 2015).

Organisations are expected to obey the laws of the country in which they operate; therefore, the geographical location or country of origin remains a key driver in

developing sustainability (González-Benito, Lannelongue and Queiruga 2011). Comparatively, some countries have more rigorous environmental and social policies and severe penalties for misconduct than others (Bai, Sarkis and Dou, 2015). Localised organisation operations more often experience relatively less pressure than organisations with international trade (e.g. health and safety, environmental practices and human resource practices) (Alzawawi, 2014). Variations in industrial sector also affect the development of sustainability requirements (Bai, Sarkis and Dou, 2015).

However, sustainability is not always perceived in a positive light. The literature suggests that sustainability could be too costly (Revell and Blackburn, 2007; Hatak, Floh and Zauner, 2015), taxing (Revell, Stokes and Chen, 2010) and unbeneficial (Battisti and Perry, 2011). The literature suggests that SMEs more often struggle to convert sustainability into real benefit (or competitive advantage) (Williams and Schaefer, 2013).

Despite these arguments holding true in the short term, irrespective of organisation size (or context), developing sustainability practices are shown to yield financial and non-financial benefits in the long-term for both the organisation and the society (Klewitz and Hansen, 2014; Staub, Kaynak and Gok, 2016).

2.3 Exploring supply chain management

In spite of the popularity of the term, there is considerable misunderstanding as to its proper definition. The notion of the supply chain emerged from the purchasing function (Farmer, 1985). Traditionally, purchasing was limited to sourcing goods and/or services at the cheapest price with acceptable level of quality and delivery times (Cousins and Spekman, 2003). However, practitioners and academics have acknowledged the increasing importance of the purchasing function to a more strategic one (Lee and Billington, 1993; Gadde and Håkansson, 1994; Carr and Pearson, 1999).

According to Lee and Billington (1993), ‘the supply chain is a network of facilities that provide the function of supplying raw materials, processing them and integrate finished products, and distribution of finished products to the customer’ (p. 838). The supply chain is a network of organisations (or functions) geographically dispersed over a number of sites that cooperate with each other to reduce costs and increase the speed of processes; therefore, the supply chain is made up of two or more independent organisations linked by physical, informational and financial flows (Kilger, Meyr and Stadtler, 2015). In the same vein, Lambert, Stock and Ellram (1998) define supply

chain as ‘the alignment of firms that brings products or services to market’ (cited in Singh and Verma, 2018, p. 3868). These organisations may be organisations producing components, intermediate products or finished products, logistics service providers or even the end customer. Christopher (1999) suggested that the supply chain could be more accurately interpreted as ‘a network of connected and interdependent organisations mutually and cooperatively working together to control, manage and improve the flow of materials and information from suppliers to end users’ (p. 6). Christopher recommended replacing the word ‘chain’ with ‘network’ as it more appropriately describes the multiple suppliers and customers within the system.

From these definitions, the following could be held to be true:

- A supply chain, in general, leads to a finished product or service.
- A supply chain involves multiple businesses.
- Business are linked by:
    - Information flows: representing all data and decisions exchanged between actors in the chain
    - Physical flows: movement of material, which traverse the supply chain in both an upstream and downstream direction
    - Financial flows: financial movements
- Organisations are potentially involved in numerous supply chains.

Managing supply relationships has become significant to maintain product and/or service flow to the consumer (Cusumano and Takeishi, 1991). Growth in outsourced production, globalisation and the current development pattern has resulted in building complex supplier bases; therefore, the management of supply chains has become a significant challenge (Gold and Schleper, 2017). It is also important to recognise that organisations are often part of several supply chains. The retail giant M&S, for example, is part of the supply chains for food, clothing, homeware and many other products.

2.3.1 Supply chain management

The concept of supply chain management (SCM) was first coined by a group of consultants in the early 1980s (Oliver and Webber, 1982, cited Bahroun and Harbi, 2015). Some scholars argue that practitioners and academics perceive SCM and logistics management as interchangeable concepts (Grant, 2010). Others argue that the concepts are relatively different. It was not, however, until the early 1990s that academics attempted to differentiate SCM from logistics management on a theoretical

foundation (Stock and Lambert, 2001). Scott and Westbrook (1991) suggested that SCM links elements from the extraction of raw materials to the end of the product's useful life. Organisations have mainly focused on gaining economies of scale through mass production and emphasised minimising cost. Management was more concerned with maintaining a balanced line flow, and therefore considered SCM a service to production. However, intense global competition forced organisations to find low-cost solutions, and increase product and service quality. Later, Baatz (1995) incorporated the management of recycling or reuse into SCM. The integration of logistics management was also identified as SCM. New and Payne (1995) emphasised the significance of the distribution function. SCM needs integration and some level of coordination of logistics activities with processes within and between organisations that go beyond logistics (Christopher, 2016). Therefore, the management of the physical distribution of product or services to end users is an important part of SCM. The integration and coordination of business processes across the supply chain enable SCM to be distinguished from logistics management (Pullen and Rhodes, 2015).

SCM generally involves raw material extraction, processing, manufacturing and assembly (i.e. cross-functions). SCM covers all phases of the life cycle of a product, starting from the extraction of raw materials, through the design and production, distribution and use of the product by the consumer, to the management of end-of-life elements (e.g. remanufacturing, reuse, recycling). Therefore, SCM considers not only the direct (or first-tier) suppliers but also second- and n-tier (beyond second-tier) suppliers (Tachizawa and Wong, 2014). Further, SCM also encompasses distribution, warehouse, retailers, customers, and end-of-life product management (Kogg, 2009; Brandenburg et al., 2014).

Organisations began to recognise the significance of the buyer–supplier relationship and the potential benefit. Ultimately, as Harland (1996) described, SCM is primarily linked to managing internal business activities and managing relationships with direct suppliers and the entire supply chain. Many organisations have embraced the SCM development to improve value chain efficiency and gain advantage from the buyer–supplier relationship. Jespersen and Skjøtt-Larsen (2005) viewed that the management of relationships could result in profitable outcome for all parties involved. Christopher (2011) defined SCM as the 'management of supplier and customer relationships in order to deliver superior customer value at less cost' (p. 3). SCM popularity is driven by growth in global supplier formations, with close partnerships and collaborative relationships that improve business performance (Meng, 2012). Increasingly,

organisations are required to effectively manage buyer–supplier relationships to unlock the potential supply chain value (Lawson et al., 2009).

2.3.2 Supply chain relationship management

The literature discusses the potential benefits through supply chain relationships (Leuschner, Rogers and Charvet, 2013). In addition, collaborating with supply chain partners can increase organisations' performance ability to co-create value (Enz and Lambert, 2012; Ralston et al., 2015). Kannan and Tan (2010) discussed the span of supplier integration; evidence suggests that organisations could increase performance by integrating suppliers beyond the first tier of the supply chain. Vanpoucke, Vereecke and Wetzels (2014) highlighted the opportunity to achieve higher competitive advantage and reduce costs.

Despite the benefits of supplier integration, Van der Vaart and Van Donk (2008) underlined the importance of business process integration to achieve benefits. A number of authors have emphasised the extra costs in structuring supplier integration, which may result in a financial burden (Cousins and Menguc, 2006). Moreover, Zineldin and Jonsson (2000) and Pohlen and Coleman (2005) highlighted that the lack of willingness to share information, lack of commitment, inflexibility, and slowness of the responses challenge organisations to integrate partners with one another.

The success of the supplier integration is influenced by strong top management commitment (Akyuz and Rehan, 2009). On the other hand, Ellram (1995) highlighted that a lack of trust negatively affects the success of supplier integration. Simpson and Power (2005) suggested that trust plays a key role in developing collaborative relationships, while power creates compliance.

As discussed earlier, collaborative relationships are characterised by knowledge and information sharing, which leads to mutual benefits that are difficult to achieve independently (Nyaga, Whipple and Lynch, 2010). The impact of power to influence integration cannot be ignored. Mukhtar, Shaharoun and Baksh (2002) underlined that supplier relationships could be anywhere in the continuum of arm's length to full collaboration. The authors identified power and collaboration as the two key variables that give rise to the relationship structures, as shown in Figure 2-3.

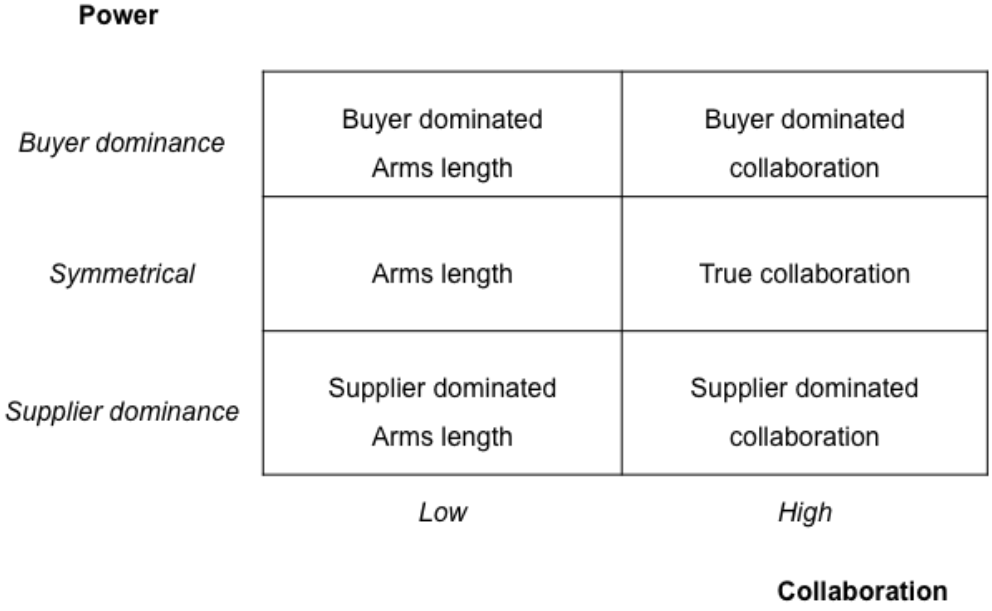

Figure 2-3 Supplier relationship structure
Adopted from Mukhtar, Shaharoun and Baksh (2002)

2.3.3 Sustainability in supply chain management

SSCM is a broad subject that integrates economic, environmental and social goals across an organisation's supply chain; strategic SSCM improves sustainability outcomes within organisations' supply chains (Carter and Rogers, 2008). Seuring and Müller (2008) defined SSCM as 'the management of material, information and capital flows as well as cooperation among companies along the supply chain while taking goals from all three dimensions of sustainability' (p. 1700). SSCM includes the interconnection of sustainability elements to the supply chain in order to improve sustainability development. This involves cooperating with the entire stakeholder network and managing the supply chain partners to reduce any negative influence. Therefore, managing the sustainability supply chain is complex (Ageron, Gunasekaran and Spalanzani, 2012). Complex products and supply chains in conjunction with diversified consumer expectations have led to intense pressure on organisations to transform their existing supply chains to meet sustainability needs (Schrettle et al., 2014). SSCM has become quite relevant mainly due to customers, governments, regulatory systems and internal stakeholders have become increasingly aware of the environmental and social issues from organisational operations (Moktadir et al., 2018).

More recently, interest has shifted more towards emerging and developing countries with a high level of purchasing power (Huq, Chowdhury and Klassen, 2016). Therefore, authors have suggested that SSCM is an increasingly growing, young research area that is emerging powerfully both in practice and academia (Ansari and Kant, 2017).

According to their findings, Khodakarami et al. (2015) suggested that SSCM presents an opportunity to distinguish one organisation from its competitor, which leads to a competitive advantage in the market. SSCM advocates the long-term benefits in conjunction with the opportunity to build competitiveness through environmental and social engagement activities in the supply chain (Ahi and Searcy, 2015). The literature highlights the development of commitment towards sustainability practices, such as implementation of environmentally friendly production strategies, improvements in working conditions, commitment to no child labour and equal human rights (Govindan et al., 2014; Rostamzadeh et al., 2015). It highlights that current SSCM research fails to provide knowledge that develops true sustainability practices within supply chain practice (Pagell and Shevchenko, 2014) and mostly investigates the economic premise of implementing SSCM (Mitra and Datta, 2014). Pagell and Shevchenko (2014) go on to suggest that SSCM 'research will have to explicitly recognise the claims of stakeholders without an economic stake in the chain, treat environmental and social claims as equally valid to economic claims, and start to focus on ways to deal with situations' (p. 47).

This premise emphasises the significance of stakeholder pressure to integrate sustainability into supply chains (Shevchenko, Lévesque and Pagell, 2016). Authors like Seuring and Müller (2008) and Foerstl et al. (2015) have suggested that pressure from external sources such as customers, competitors, governments and other stakeholders influences organisations to adopt sustainability along their supply and demand chains. While Silvestre et al., (2018) highlight the importance of managerial orientation towards SSCM development.

Responsible sourcing (or purchasing) is central in diffusing or extending sustainability (Krause, Vachon and Klassen, 2009). By including environmental and social aspects into their sourcing and supplier selection criteria, organisations can reduce risk and improve their overall sustainability reputation (Paulraj, 2011). The literature suggests that organisations often adopt supplier codes of conduct (Yu and Tsai, 2008) and supplier assessments (Large and Thomsen, 2011) to develop supply chain sustainability. Scholars have summarised the approaches as 'compliance-based' and

‘cooperative-based’ (Lund-Thomsen et al., 2012). However, these approaches are frequently challenged and extensively debated (Varnäs, Balfors and Faith-Ell, 2009; Johnson, 2015). Following the initial sourcing and supplier selection, the literature highlights the sustainability diffusion through supplier development, which aims to enhance supply chain capability to meet long-term sustainability objectives (Li, Kang and Haney, 2017).

The literature indicates that LEs have embraced the concept of SSCM more than SMEs. Many studies have focused on SSCM in LEs (De Giovanni and Vinzi, 2012). By contrast, very few studies have been carried out on SMEs. However, for SMEs to be competitive and maintain competitive advantage in the global market, they are required to integrate strategic SSCM. Crals and Vereeck (2005) pointed out that SMEs face a variety of difficulties in maintaining SSCM. Approaches to diffuse sustainability practices such as supplier selection, supplier assessment and supplier development are typically not adopted by SMEs (Touboulic and Walker, 2015). There is extensive demand for more research on SSCM from an SME context (Hassini, Surti and Searcy, 2012; Kot, 2018).

2.3.4 Approaches to sustainability in supply chain

Managing multiple suppliers within the supply chain is unsurprisingly a transversal process, especially for SMEs with little (or no control) over suppliers (McAloone and Bey, 2009). However, it is expected that buying organisations have power to influence suppliers to reach expected levels of sustainability (Lee and Klassen, 2008). Sarkis, Zhu and Lai (2011) revealed that imposing sustainability specification on sourcing and supplier selection, using audit practices for supplier evaluation, and engaging in supplier development can extend sustainability. Therefore, the literature highlights key functional activities in building SSCM, namely supplier selection, supplier performance assessment and supplier development. However, there is increased necessity to investigate SMEs in order to identify the sustainability practices adopted to implement SSCM (Kot, 2018).

2.3.4.1 Supplier selection

Supplier selection is an excellent starting point for building a supplier relationship and the diffusion of environmental and social sustainability practices. Suppliers are integral to improving supply chain sustainability performance; increasingly, organisations are adopting social network mechanisms to lower information asymmetry and reduce

uncertainty (Ashby, 2016). Scholars like Weber, Current and Benton (1991) and Cheraghi, Dadashzadeh and Subramaniam (2004) have discussed key supplier selection criteria. Authors Chai, Liu and Ngai (2013) have conducted comprehensive reviews of the literature on decision-making techniques for supplier selection. Quality, cost and delivery expectations continue to dominate supplier selection decisions; however, more recently, supplier selection practices have led to criteria such as environmentally friendly production, emission levels, labour standards, and health and safety (Luthra et al., 2017; Yu, Yang and Chang, 2018). Accordingly, establishing standards and supplier selection based on them guarantee that the suppliers meet minimum standards (Jira and Toffel, 2013).

Generally, buying organisations (or the dominant buyer) generally transfer their sustainability policy, code or requirements to their suppliers (Baden et al., 2009), based on principal–agency theory, which relies on buyer–supplier exchanges and focuses on transactional exchange from an economic perspective (Fayezi, O'Loughlin and Zutshi, 2012). Use of governance mechanisms, such as incentives and contracts with third-party certified standards (e.g. SA 8000, ISO 14001) or other recognised sustainability practices (e.g. eco-label, organic), align the interests of principals and agents. However, more recently, sustainability perspectives have supported the use of social network mechanisms, especially in SMEs (Schell, Hiepler and Moog, 2018; Ribau, Moreira and Raposo, 2018). Arguably, the network approach supports organisations to establish mutual goals for sustainability and performance development (Pagell and Wu, 2017). However, it is argued that non-binding relationships based on social network framework might help organisations to develop awareness (or expectation) but might not lead to the implementation of sustainability practices.

Certification and self-assessment provide the opportunity to diffuse sustainability practices and minimise risk from supplier behaviours (Zsidisin and Smith, 2005). The most commonly used mechanism to evaluate suppliers has been facility visits (or audits) followed by third-party audits conducted by certified independent organisations and self-evaluation (Nawrocka, Brorson and Lindhqvist, 2009).

However, the lack of barging power limits that application of supplier selection and a lack of resources limits the application of supplier evaluations. The adoption of these practices has been more common in LEs (Ayuso et al., 2013), and commonly applied within strategic suppliers in long-term relationships (Nawrocka, Brorson and Lindhqvist, 2009). The evaluation mechanisms have focused on compliance with regulation and

requirements (Ayuso et al., 2013), capability (Paulraj, 2011), risk (Beske, Land and Seuring, 2014), process and facility (Elg and Hultman, 2011).

2.3.4.2 Supplier performance assessment

According to literature finding, supplier performance evaluation and assessment is important for building SSCM (Asadabadi, 2017). While the traditional supplier evaluation criteria such as cost, quality and delivery are still crucial (Khan et al., 2018), evaluation based on sustainability that embraces environmental and social factors is becoming valuable (Schaltegger et al., 2014). Therefore, it is critical to consider supplier performance evaluation through supplier sustainability practices. Authors argue about other sustainability-related supplier performance evaluation criteria such as organisational strategy, risk management and transparency (Carter and Easton, 2011). Sustainability performance assessment includes collecting, measuring and highlighting the importance of openness to stakeholders (Beske, Land and Seuring, 2014).

The literature has uncovered various performance assessment mechanisms such as self-assessment (Klassen and Vereecke, 2012), surveys (Nawrocka, Brorson and Lindhqvist, 2009) and audits (Morali and Searcy, 2013). Audits were the most widely used instrument to improve sustainability performance (Chardine-Baumann and Botta-Genoulaz, 2014; Marshall et al., 2015b). However, owing to SMEs resource constraints, they mostly rely on self-assessment with selected sustainability requirements (Gold, Seuring and Beske, 2010b). Some independent organisations have attempted to develop frameworks and guidelines for sustainability in supply chains, such as the Ethical Trade Initiative and the Supplier Ethical Data Exchange (Sedex). Additionally, online sustainability performance platforms have attempted to employ scoring systems for supplier performance assessment (e.g. EcoVadis, Rankaband), which allows buying organisations to easily assess the performance compliance of suppliers. Despite these developments, authors have discussed the lack of measurement systems and indicators make it challenging to detect exploitative supplier practices (Wolf, 2014; Gold, Trautrims and Trodd, 2015).

Evidence of sustainability performance improvement is inconclusive; Green et al. (2012) found that mutual understanding of the responsibility with collaborative efforts among suppliers influence organisational and environmental performance. Similarly, Zhu, Sarkis and Lai (2012) found that diffusion of environmental sustainability practices

had a positive effect on economic performance. However, the diffusion of social responsibility practices such as labour standards and safety standards had little or no direct effect on economic performance. The literature suggests that the eradication of exploitative practices such as underage workers, forced labour and working conditions remains critical in building social sustainability within supply chains, but it is difficult to measure their economic benefits (New, 2015). Hollos, Blome and Foerstl (2012) found that supplier collaboration, including joint planning for environmental performance, did not affect economic performance. Alternatively, different performance results were evident in terms of innovation, cost reduction, increase in efficiency and risk management (Hollos, Blome and Foerstl, 2012; Golicic and Smith, 2013).

2.3.4.3 Supplier development

Following the initial supplier selection and supplier assessment based on the sustainability selection criteria, organisations are more likely to engage in supplier development with the aim of continuously enhancing supply chain capability to meet long-term sustainability goals. The literature highlights the importance of supplier development. Bai and Sarkis (2010) suggested that supplier development can be achieved through knowledge transfer and communication, and management of organisational practices. Li, Kang and Haney (2017) included education and training, performance development, supplier incentives and resource allocation to enhance supplier capabilities.

Supplier development is considered critical within SSCM. In general, it is considered that the buying firm develops its suppliers to establish and maintain superior sustainability practices. Supplier development programmes more often lead to increased performance (Zhang, Pawar and Bhardwaj, 2017), enhanced capacity (Ağan et al., 2016), problem-solving (Tong, Shi and Zhou, 2012), increased trust and long-term competitive advantage (Nagati and Rebolledo, 2013), which benefit both buyers and suppliers (Sancha et al., 2015). On the other hand, it is reported to improve satisfaction and commitment within the supplier base (Ghijsen, Semeijn and Ernstson, 2010).

According to findings summarised by Beske, Land and Seuring (2014), supplier development is associated with knowledge management, partner development, supply chain reconceptualisation, co-evolving, and reflexive control, as illustrated in Table 2-1. These capacities assist organisations to diffuse environmental and social sustainability (Mitrega and Pfajfar, 2015).

Supplier Development	Definition and Description
Knowledge management	Developing knowledge and understanding of sustainability capabilities of supply chain members. Share resources and support to achieve common goal.
Partner development	Supporting and developing capacity of the supply chain. Investments to all partners over time.
Supply chain reconceptualisation	Selecting the right supply chain partners, search for new ways of operating and integrating the supply chain. Challenging the unsustainable business activities.
Co-evolving	Implementing processes that enhance supplier relationships and developing strong relationships within the supply chain. Regular meetings, discussions, enhanced communications, building trust and collaborations. Enhancing overall performance of partners in the chain.
Reflexive control	Degree of understanding and access to information about the product and process. Evaluation of suppliers. Transparency, control and monitoring, trust and efficient long-term relationships. Information gathering, evaluation and sharing.

Table 2-1 Supplier development capacity
Adopted from Beske, Land and Seuring (2014)

Authors have suggested that the application of supplier development programmes helps suppliers enhance their sustainability capabilities to meet buying organisations' expectations (Gimenez and Tachizawa, 2012). However, it is argued that building on supplier development requirements is too costly and time-consuming and requires new expertise (Ayuso, Roca and Colomé, 2013).

2.4 Sustainability in fashion industry supply chain

The fashion industry is diverse and heterogeneous, involving a wide range of activities from transforming natural (e.g. cotton, wool) or man-made (e.g. viscose) fibres into yarn, yarn into fabric and fabric into fashion articles (Gardetti and Torres, 2013). In general, the fashion industry includes materials, textiles production, clothing manufacturing, wholesaling, marketing and retailing. The scale and scope of the

current fashion supply chains are highly complex, with globally diverse production and distribution channels that contribute to make it one of the longest and most complicated supply chains in the manufacturing sector.

Despite the current global economic downturn, the global apparel industry continues to grow at a healthy rate. The global industry accounts for around 2% of the world's gross domestic product (GDP) and is worth over 3 trillion USD (Global Fashion Industry Statistics, 2020). The size of the EU apparel market is 375 billion USD (Statista, 2020). It is estimated that, globally, more than 1 trillion USD per annum is spent on clothing. More than 28 million people are employed in the industry; in particular, many manufacturing processes take place in poorer countries (McCosker, 2019). Globalisation, economies of scale and digital opportunities have made the supply chains broader (Truett and Truett, 2019). The industry is outsourcing most if not all production activities overseas (Botti, 2019; Lica, Maria and De Marchi, 2020).

Large retailers dominate the industry, and they have often adopted mass-market production strategies that have contributed to a significant decrease in the cost of clothing (Ritch and Schröder, 2012), in conjunction with increased purchase frequency, which have developed a 'throwaway' attitude to clothing. The industry is built on a linear 'one-way street' of take, make and waste (Globalfashionagenda.com, 2017). Moreover, the UK fashion industry has become less about manufacturing and much more about marketing and retailing. The fashion industry is a broad industry, with some authors dividing the industry into slow and fast fashion. Fast fashion emphasises mass production, low cost, cheap pricing structures, and marketing, where the aim is to have new fashion trends all year round (Jang et al., 2012). With the popularity and success of retailers such as Zara and H&M in conjunction with the growth in e-commerce platforms, the fast fashion business model has become increasingly widespread. Despite the success, fast fashion has been heavily criticised for its negative environmental impact (e.g. product quality and waste generation) (Saicheua, Knox and Cooper, 2012), whereas slow fashion focuses on quality instead of quantity (Jung and Jin, 2016). Despite that, fashion industry organisations continue to adopt linear business models, underestimating environmental and social impacts (Thorisdottir and Johannsdottir, 2019). This type of position has led practitioners and scholars to focus more on organisations' sustainability and sustainability in the production process throughout the supply chain (Thorisdottir and Johannsdottir, 2019).

The fashion industry can no longer compete exclusively by product design alone and gaining competitive advantage only through internal sustainability. The fashion industry relies heavily on numerous players across supply chains to extract raw materials, to process them, and to deliver output on time. As Fletcher (2014) pointed out, sustainability in the fashion industry requires a more holistic approach, because sustainability depends on every phase of the production process working together, rather than on any one step viewed in isolation. As such, organisations must depend on how well the supply chain overcomes sustainability challenges (Sajjad, Eweje and Tappin, 2015). Therefore, stakeholders expect greater accountability and supplier transparency (Joy and Peña, 2017); for example, when unethical conduct is identified at a raw material supplier, such as animal cruelty in sheep farming, the responsibility is not just placed on the farmers. The retailer or the brand is held accountable for the unethical practice. Even though they are multiple tiers away from the farmer, they are held accountable by association. Therefore, the significance of examining sustainability in the fashion industry supply chain is obvious (Karaosman et al., 2018).

2.4.1 Fashion industry supply chain management

As briefly discussed earlier, the fashion industry is characterised by global and fragmented supply chains; a multitude of individuals and organisation contribute to the production process, from raw materials suppliers to end customers (Bruce and Daly, 2011). However, national supply chains are more often short, flexible and transparent when compared to global supply chains.

In order to provide some clarity, it is beneficial to identify organisations' position within the product chain, as well as the actor controlling that phase, as each part of the chain represents a phase in the product's life cycle. Therefore, on a very basic level, the fashion supply chain would include raw material extraction (e.g. cotton farming), production (e.g. yarn production), processing (e.g. greige process), manufacture (e.g. garment production) and sale (e.g. retailer). Figure 2-4 illustrates a product chain. This research considers an exclusive retailer that sells only cotton garments and focuses on the production to retail phase, which is the focus in this research.

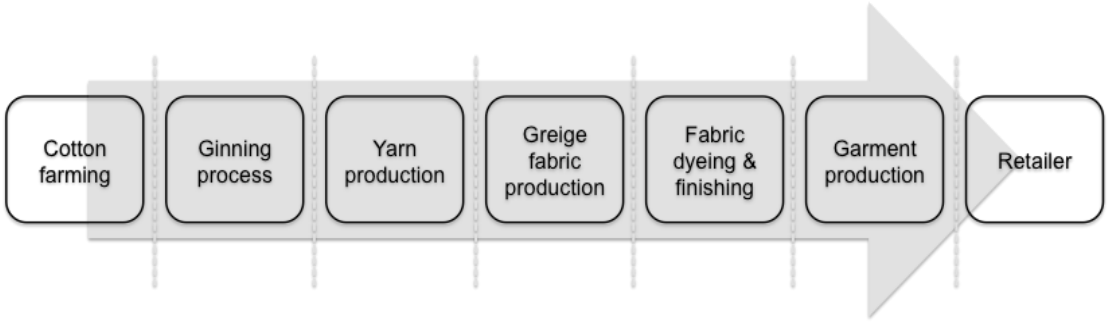

Figure 2-4: The product chain for cotton garment production
Adapted from Kogg (2009)

However, it is important to recognise that the product value chain is hardly ever structured in this manner. It is highly unlikely that any product chain would be linear.

A supply chain is considered long if it has a higher number of phases (e.g. retailer, garment producer, fabric dyeing and finishing) or short if it has only a limited number of phases; for example, meatpacking plants' supply chains might not be too long, while the sausage manufacturing supply chain may be very complex, with a number of different suppliers and multiple supply chains leading to the manufacturing process.

Using a diagram or picture as a mental model is often extremely useful when trying to examine where environmental and social issues occur; for example, the cotton-farming phase is often responsible for significant environmental impact. As identified in the previous product chain example of a cotton garment retailer that only sells only one type of garment made from cotton, visualise the supply chain of a cotton garment retailer with multiple products. Figure 2-5 below provides a very rough design of the complexity of such a supply chain. It serves to illustrate some of the complexities present in industry supply chains.

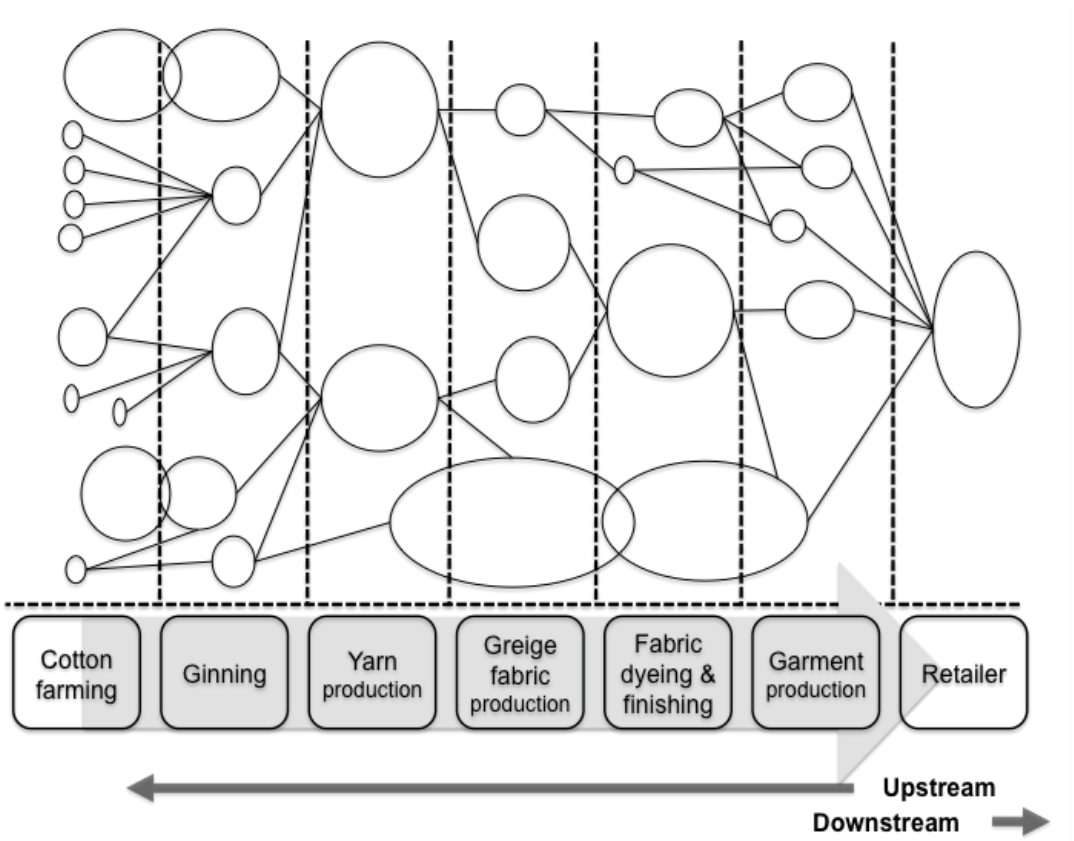

Figure 2-5: Cotton garment retailers supply chain
Adapted for Kogg (2009)

The different sizes of the circles in Figure 2-5 are an attempt to illustrate the different sizes of the organisation that are part of the supply chain. The chain begins from the left, moving one phase (or tier) to the next with some sort of transformation process. Cotton farming represents one of the phases: the farmer is one of the suppliers to the next phase (or tier) – ginning – and they will be the suppliers for the yarn producer. The yarn producer will supply yarn to the fabric producer, and the garment manufacturer may source fabric from the finishing plant. The retailer will source from the garment manufacturer, which will ultimately end up in the hands of the consumer.

However, it is important to understand that a competitive supply chain might consist of multiple suppliers at each phase (e.g. multiple cotton farmers), while some suppliers might engage in multiple production processes (e.g. cotton farms integrate with the ginning process). They may control or own subsequent upstream or downstream phase or phases within a value chain; for example, a garment manufacturer could buy one of its key fabric suppliers to guarantee access to raw materials. They might also enter into a contract with a yarn producer to guarantee continuous supplies. This can

take place any time that a supply chain member takes control of elements that are closer to its suppliers or customers.

The elements of the upstream supply chain typically include raw material extraction and intermediate manufacturing such as materials processing, components manufacturing, and assembly manufacturing. This means that not only are the first-tier suppliers' part of the upstream supplier network but also the second-tier and n-tier suppliers (Tachizawa and Wong, 2014; Grimm, Hofstetter and Sarkis, 2014). Downstream in turn encompasses the distribution, warehouse, retailers, customers, and product end-of-life (EOL) management. EOL management is mainly in respect of reverse material flow (Brandenburg et al., 2014).

The overlapping circles within Figure 2-5 depict upstream or downstream integration within the supply chain. Integration towards the sourcing (or supplier) is known as upstream (or backward), while integration in the direction of the consumer is known as downstream (or forward) integration. For example, the fashion retail giant Zara has successfully adopted upstream (or backward) integration. They own and operate production facilities in Spain where they design, process and manufacture. They operate with an integrated upstream supply chain and most of their garment production facilities are owned and operated by the same management.

Considering the retailer as the focal organisation in Figure 2-5 above, the multiple garment producers represent the first-tier (or direct) suppliers, one of which is backward-integrated with the fabric producer and yarn producer. Fabric dyeing and finishing represents the second-tier supplier, while greige and fabric producers supply material to the second tier within the supply base.

Even though this mapping attempts to give a structure of a complete supply network in the fashion industry, complexity runs even deeper. It is important to note that fashion retailers generally operate with multiple varieties of product and each product will have a different supply chain (e.g. cotton T-shirt, jeans, shoes). Further, each supplier will have multiple product chains with complex networks within individual product chains that branch out to vastly complex supply chains (e.g. organic cotton T-shirts, printed cotton T-shirts, polyester collared cotton T-shirts) (Kogg, 2009). Also, each item will have multiple components (e.g. cotton, polyester, buttons and thread). Thus, each component may have complex supply chains.

Further complexities occur due to changes in elements and dynamism related to the addition of new suppliers and de-listing of suppliers according to developing needs. Other dynamics arise from a change in ownership or management. Diversity in global economics and cross-national boundaries adds further complexity.

In an ideal world, a brand (or retailer) would be aware of suppliers and monitor their sustainability performance. Of course, it is not an ideal world and given the length and complexity of the network it is virtually impossible to monitor the entire supplier chain.

2.4.2 Fashion industry supply chain environmental and social impact

To better understand the value of sustainability in supply chain it is important to identify the critical issues that are rendering today's fashion industry unsustainable; see Figures 2-6 and 2-7.

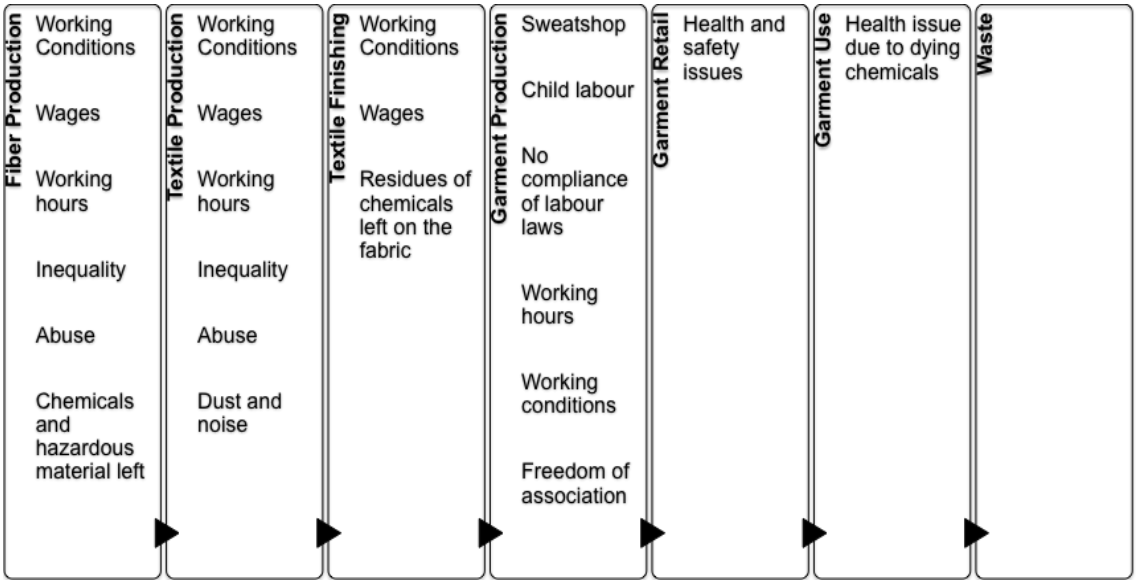

Figure 2-6: Social issues in the textile industry
Adopted from Van Yperen (2006)

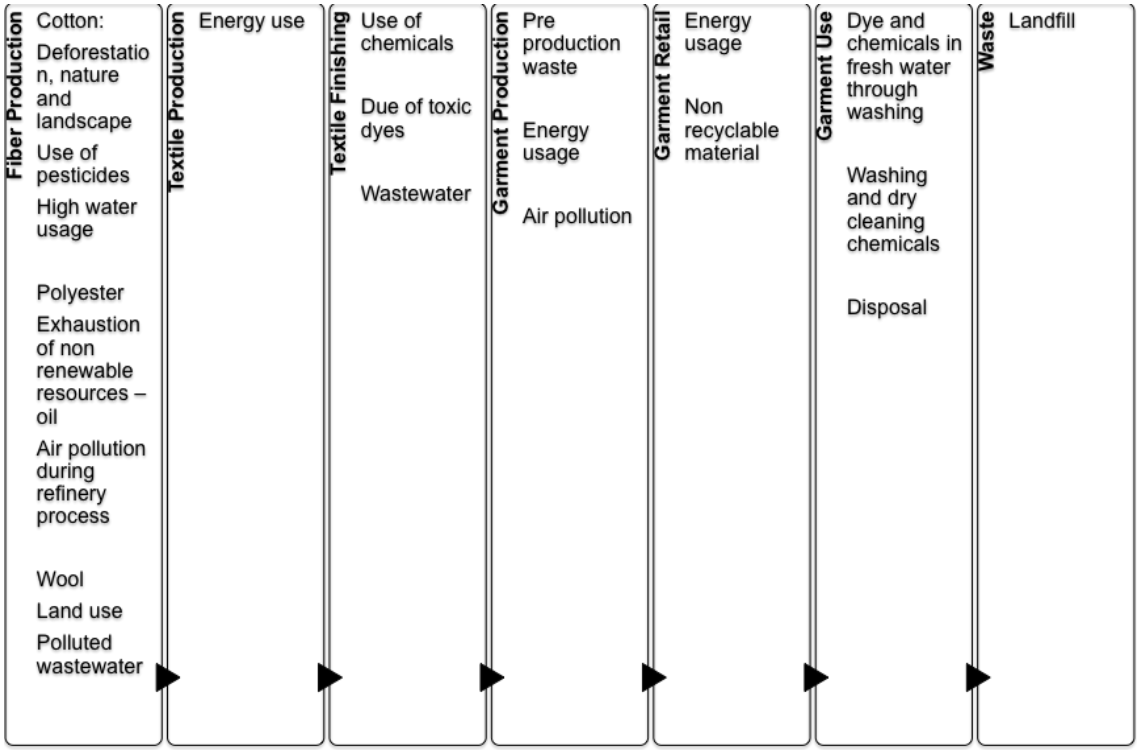

Figure 2-7: Environmental issues in the textile industry
Adopted from Van Yperen (2006)

Most of the environmental impacts in supply chains relate to the use of energy and toxic chemicals and environmental issues such as pre-production waste, energy usage, and pollution cannot be ignored (Fletcher, 2009). The search for lower-cost production has led to a dramatic relocation of production sites towards the Far East (De Brito, Carbone and Blanquart, 2008; Gwilt, 2020), which comes with devastating social concerns around fair treatment, working conditions, worker rights and child labour (Allwood et al., 2008): industry reports suggest that tens of millions of people work under 'sweatshop' conditions (Dirnbach, 2008).

As an industry with lengthy and complex supplier networks, it is reasonable to assume that an organisation might be unaware of many sustainability issues that occur within the supply base. The literature highlights some initiatives to gain information about supplier practices. Responsible organisations adopt strategic approaches to identify, select, assess and develop contract suppliers. They take measures to manage and develop supplier relationships and implement strategies to monitor and control supplier performance (Ganesan et al., 2009). The SSCM literature highlights three critical functions: (i) Identifying, selecting and contracting suppliers, (ii) managing and developing the relationships, and (iii) monitoring and controlling sustainability performance (Kirchain et al., 2015; Drew and Yehounme, 2017).

2.4.3 Fashion industry response

The fashion industry is built on a linear 'one-way street' of take, make and waste (Globalfashionagenda.com, 2017). The production approaches tend to improve competitiveness by minimising costs, allocating resources for production, distribution and transportation on this basis. Growth in customers' awareness has significantly increased organisations' attention towards identifying how sustainability can be diffused (or extended) to the supply chain, and examining operational practices has become increasingly relevant (Resta et al., 2014). The UK fashion industry has shown some visible approaches to diffuse environmental and social sustainability. More and more organisations are expected to pursue sustainability approaches that offer an opportunity to secure profitable growth (Hassini, Surti and Searcy, 2012).

Many studies fail to offer a comprehensive overview on sustainable practices. They mostly focus only on a specific functional area (e.g. manufacturing, distribution, retail, EOL). For example, Niinimäki and Hassi (2011) investigated the importance of integrating sustainability in the design and development process of fashion collections as sustainability choices like the decision to use low-impact raw material (so far there has been no completely sustainable or green material; they all pose some impact) during the designer stage can impact the SSCM. However, as characterised in the fashion industry, products get obsolete quickly and the need for continuously renewing products contrasts with the idea of adopting sustainable design practices (Macchion et al., 2015). Fowler and Hope (2007) described the fashion retailer Patagonia successfully implementing design activity based on life cycle analysis (LCA).

From a sustainability perspective, sourcing policies pay greater attention to green purchasing (e.g. organic cotton, recycled polyester) (Allwood et al., 2008) and supplier evaluations based on adoption of social practices that respect established labour laws, and more generally improve social conditions. Therefore, sustainability sourcing may require organisation to closely examine suppliers to verify their environmental and social efforts (Krause, Vachon and Klassen, 2009).

Several authors have investigated sustainability issues in fashion production, for example the use of chemical products, exhaustion of resources, and harmful emissions (Lakhal, Sidibé and H'Mida, 2008; Park and Dickson, 2008; Wiengarten, Pagell and Fynes, 2012). From the social perspective, authors have investigated sustainability

issues in fashion production, for example child labour, worker rights and working conditions, and some companies adopt supplier disclosure measures to trace their production chains by disclosing supplier information (De Brito, Carbone and Blanquart, 2008).

Many LEs have responded to demands for sustainability by launching sustainability inspired product ranges and there has been growth in small-scale ethical fashion retailers (Wigley et al., 2012; Haanaes et al., 2012). Ethical fashion is broadly discussed as 'designing and manufacturing clothes in a way that cares for people and communities while minimising the impact on the environment' (Ethical Fashion – Victoria and Albert Museum, 2020).

The literature highlights the importance of negotiating retailer-level sustainability (Burnes and Towers, 2016), as retailers are the direct intermediaries that act as the gatekeepers between manufacturers and customers. Industry reports suggest that retailers often attempt to address environmental issues, such as the use of low-impact packaging, minimise energy consumption and improve recycling activities, and they are involved in building consumer awareness about sustainability policies and practices adopted by fashion brands (De Brito, Carbone and Blanquart, 2008; Globalfashionagenda.com, 2017).

Researchers acknowledge the adoption of sustainability performance as a source of product and process differentiation (e.g. M&S, Patagonia, Stella McCartney) (Gardetti and Torres, 2013). Brands (or retailers) are introducing organic cotton, recycled polyester and other low-impact initiatives upstream, while initiatives such as green packaging and zero-emission transportation, repairing services, and recycle and upcycle programmes are adopted downstream (Crane, Matten and Spence, 2013). There has been great interest in textile recycling; for example, the Hong Kong Research Institute of Textiles and Apparel Limited, in partnership with H&M and Novetex, has managed to implement textile recycling through a garment-to-garment (G2G) recycle system, which enables the recycling of blended post-consumer garments (Wu and Li, 2019).

2.5 Small and medium enterprise

SME terminology covers a broad range of definitions; there is no single universally accepted definition of an SME. SMEs are non-subsidiary independent entities that employ fewer than a defined number of employees. The terminology generally

incorporates financial variables, such as turnover and assets. Other commonly used measures include number of employees, total net assets, turnover (or sales), number of annual hours of work, annual balance sheet, level of investment, volume of production, and corporate independence (Harjula, 2008). According to more established definitions, the main factors determining whether an organisation is an SME are:

- no of employees/headcount
- turnover/balance sheet total.

According to the EU definition's criteria, SMEs need to have a defined turnover and number of employees.

Company Category	No of Employees	Turnover
Micro business	< 10	≤ € 2 Million
Small business	< 50	≤ € 10 Million
Medium business	< 250	≤ € 50 Million

Definition of SME according to European Union
Source: What Is an SME? – Internal Market, Industry, Entrepreneurship, and SMEs – European Commission (2003)

Similarly, according to the World Bank definition of SMEs:

Company Category	No of Employees	Turnover
Micro business	< 10	≤ $ 100,000
Small business	< 50	≤ $ 3 Million
Medium business	< 300	≤ $ 15 Million

Definition of SME according to the World Bank
Source: Ieg.worldbankgroup.org. World Bank Group Support for Small and Medium Enterprises A Synthesis of Evaluative Findings (2019)

The European definition provides the most logical framework and offers a clear basis to determine the organisation's size. Generally, level of production correlates with the organisation's turnover (i.e. more sales means more production), thus greater production means a greater risk of environmental and social issues. On the other hand, greater turnover means a greater product life cycle. Therefore, the European definition is the best indicator to determine the organisational size from the sustainability-related research standpoint. Therefore, the European definition helps determine the case sample selection.

2.5.1 Small and medium enterprise characteristics

Apart from the more obvious size and turnover, SMEs possess a number of unique features that distinguish them from LEs. In general, their management structures are simple and flexible: often founders, owners or (a small group of) top managers shape SME characteristics (El Baz et al., 2016). They are more likely to pursue a satisfactory flow of income and may operate not simply to maximise profits but pursue strategies that enable them to survive (Fitjar, 2011). SMEs' actions are often affected by the 'double bottom line' approach that balances ownership and survival (Howarth and Fredericks, 2012).

Unlike LEs, SMEs are more likely to adopt less rigorous informal strategies that are poorly defined (Spence, 2007; Lee, Herold and Yu, 2016). The literature suggests that SMEs' decision-making tends to focus on areas that require immediate attention. They tend to make quick, short-term decisions with relatively little (or no) long-term strategic planning (Paik, 2011). Often their organisational structures are flat and simple. Consequently, the line of communications is shorter, reducing bureaucracy and resulting in faster decision-making. Therefore, SMEs are known to be flexible and capable of managing dynamic business environment changes (Liñán, Paul and Fayolle, 2019). Arguably, SMEs are more creative and innovative (Smith and Smith, 2007). They can differentiate through unique product (or service) characteristics, quality, and customer service (Healy, O'Dwyer and Ledwith, 2018) and are more likely to retain knowledge-based advantage, superior communication, and trust-based relationships (Thakkar, Kanda and Deshmukh, 2011).

On the other hand, SMEs work with resource constraints, they often struggle to attract financial resources and they operate on narrower margins (Fitjar, 2011). SMEs commonly retain family and friends and seasonal, casual, part-time and non-unionised workers. Therefore, they suffer from skill shortages, risk and uncertainty. They often fail to attract external knowledge, expertise and support (El Baz et al., 2016). SMEs are generally at a disadvantage due to economies of scale. Arguably, however, sustainability could reduce SMEs' operational costs and help allocate resources through improving efficiency and effectiveness (Kechiche and Soparnot, 2012). Authors suggest that, as a result of pressure from stakeholder expectations, SMEs are required to respond beyond their means and develop performance measures (Taticchi, Tonelli and Cagnazzo, 2010; Lewis, Cassells and Roxas, 2015). Table 2-2 highlights

the common differences in characteristics between SMEs and LEs (Preuss and Perschke, 2010).

Factors	**Small and Medium Enterprises**	**Large Enterprises**
Force	Internal engine: role of owner values in setting priorities.	External pressures: business expectation (strategy, brand value, risk management, regulation).
Stakeholders	Integration into the community on different levels.	A vast network of stakeholder relationships leading to a wide range of sustainability issues.
Managerial expertise	Knowledge and preferences of the owner-manager. Owner-manager as the sole decision maker or dominant decision maker.	Strategic planning of sustainability. Range of defensive and proactive approaches. More standardised reporting.
Organisational structure	Informal approach. Ad hoc initiatives; initiatives not characterised as a social responsibility.	Formal approach through a dedicated function. Representation at board level.
Type of contract	Sustainability requirements dominant trading partners. Otherwise, generally not sensitive to market pressures.	Opportunities for improvement of the brand, reputation especially in the consumer goods sectors.
Benefits	Concern for the local community. Replace profitability (short-term) to undertake initiatives based on principles. Flexible and innovative.	Considerable impact on local and international level. Beyond the organisation itself (throughout the supply chain).
Drawbacks	Resource constraints. Business benefits are difficult to measure. Preponderant influence of the owner-manager.	Economic considerations often outweigh sustainability development. Instrumental approach.

Table 2-2 Difference between SMEs' and LEs' processing sustainability
Adopted from Preuss and Perschke (2010, p. 537).

SMEs dominate the business sector in many countries at a macro level; their cumulative impact cannot be ignored and they therefore play an important role in sustainability development (Cassells and Lewis, 2011). Empirical findings suggest that sustainability initiatives should be part of SMEs' operational strategies (Pullman, Maloni and Carter, 2009). However, practitioners highlight that SMEs perceive sustainability as an additional burden and presume that sustainability development is primarily, if not exclusively, linked to more powerful and noticeable LEs. Conversely, researchers advocate that sustainability is no longer confined to LEs and MNCs (Revell, Stokes and Chen, 2010; Madsen and Ulhøi, 2016).

Rapid development in international economies has remodelled the supply chain network structures, increasingly expanding to SMEs and creating substantial pressure to minimise the potential sustainability-related risks and build opportunities (Hörisch, Johnson and Schaltegger, 2015; Jansson et al., 2017). Growth in fast fashion has resulted in a demand for low costs and shorter lead times, which arguably limit sustainability. The majority of fashion production operations are overseas in lower-labour-cost countries with powerful buyers and weak SME suppliers (Gereffi, Humphrey and Sturgeon, 2005). Competitiveness, tight margins and resource shortages influence SME suppliers to concentrate more on operational strategies than on developing sustainability (Welford and Frost, 2006). The development in entrepreneurship arguably plays a vital role in enhancing sustainability in SMEs. Entrepreneurs are eager to capitalise on new market trends and are sensitive to social expectations; therefore, sustainability-inspired SMEs are attentive to sustainability practices (Shields and Shelleman, 2015).

2.5.2 Small and medium context

The majority of Scotland's businesses are small (98.2%) and provide about 1.2 million jobs (Gov.scot. 2018). The Scottish Government considers SMEs a key instrument for economic development. SMEs restructure the national economy through entrepreneurial activities (i.e. innovation and product diversification) (Talmaciu, 2012), improve national production capacity, and restore (or preserve) traditional craft and commercial activities that are unique to a country (or territory) (e.g. Harris Tweed) (Szabó and Herman, 2012).

Therefore, SMEs remain critical for sustainability development (Amaeshi et al., 2016). At an enterprise level, SMEs' economic performance enhances the value and wealth

for shareholders. At a macro level, SMEs participate in job creation and build national competitiveness (Witjes, Vermeulen and Cramer, 2017). Given the economic and social importance of SMEs to society highlighted by Park and Ghauri (2015), it is unlikely that any meaningful progress can be made towards sustainability development goals without SMEs' contributions. Despite the essential role in economic growth, SMEs role in sustainability development has often not received sufficient academic attention (Amaeshi et al., 2016). The inconsistencies and lack of knowledge suggest the need for in-depth understanding about SME sustainability practices.

Only a limited number of SMEs have taken a proactive approach to adopting sustainability. Most have shown resistance to sustainability initiatives (Arena and Azzone, 2012). Scholars argue that this is not solely due to SMEs' lack of interest, but more due to a lack of skills, knowledge, expertise and resources (Degong et al., 2018). However, findings suggest that SMEs can adopt sustainability practices without allocating a significant amount of resources. Some practices are accessible to any organisations regardless of capabilities; for example, simple policy changes or alterations to process that support sustainability behaviour might not require a significant amount of organisational resources.

Even though SMEs are still in early stage of adapting to sustainability practices, there has been drastic change in the attitude towards sustainability, especially when SMEs' owners (or managers) have a strong desire for sustainability. Arguably, SMEs' sustainability commitment and resource allocation are illuminated through the convictions of the leader, employees and community stakeholders that translate into strategy and actions. Authors suggest that SMEs can initiate extended supplier sustainability by initially building internal sustainability capabilities (Cohen, McKay and Wolfe, 2017; Aboelmaged and Hashem, 2019).

On the other hand, SMEs operate within a community so there is an inherent assumption that they avoid irresponsible behaviour (Gomez, Isakov and Semansky, 2015) and engage in sustainability as they are interwoven with local society (Jamali, Lund-Thomsen and Jeppesen, 2017). However, increasingly SMEs participate in international trade, which forces them to align their business standards with international expectations (Jamali, Lund-Thomsen and Jeppesen, 2017). Industry conditions are not the same in every country, which is a significant challenge in establishing SMEs' sustainability practices. Often SMEs struggle to maintain diverse sustainability expectations (Tsamenyi, Enninful-Adu and Onumah, 2007).

Moore and Manring (2009) suggest that the 'integration of responsibility in their [SME] competitive strategy helps their survival rate, thereby achieving greater profitability through the adoption of sustainable strategies' (p. 277). The literature suggests that SMEs often seek to enhance profitability by implementing environmental measures that reduce the costs, such as energy efficiency measures (Bos-Brouwers, 2010; Brammer, Hoejmose and Marchant, 2012). Some scholars recognise sustainability as a potential source of competitive advantage as a result of access to new markets, which may encourage SMEs to adopt strategies to develop sustainability (Jämsä et al., 2011; Jansson et al., 2017). By contrast, some findings suggest that SMEs may find it difficult to gain a competitive advantage as LEs are already the leaders in approaches to sustainability (Williams and Schaefer, 2013).

The literature also suggests that the existing theories, concepts and frameworks are mainly developed for LEs and are inappropriate for SMEs (Kogg, 2009). Further, various monitoring tools such as sustainability benchmarking, balance scorecards, cleaner production indicators, eco-labelling, standards, certifications and audit processes are too costly and mostly appropriate for LEs (Baldwin et al., 2005). Therefore, SMEs struggle to assess, monitor and develop strategies to negotiate sustainability practices (Parhankangas, McWilliams and Shrader, 2015). Arguably, SMEs generate more pollution, use more energy and consume more natural resources than LEs (Nguyen et al., 2015). The use of outdated (or inexpensive) technology, lack of expertise, lack of resources, poor environmental management (Nhat, 2006), lack of national support and inadequate information continue to challenge SMEs' sustainability development (Daddi, Testa and Iraldo, 2010).

External stakeholders develop external structures (e.g. norms and institutional landscape) that influence sustainability. However, the combination of a lack of external stakeholder pressure (e.g. from government regulations, local communities), lack of sustainability tools, and unfavourable economic environment disrupts SME sustainability (Schulz, Kraus and Demartini, 2011; Aykol and Leonidou, 2015). Industry reports suggest that SMEs' sustainability practices have not gone beyond the preliminary stage (Globalfashionagenda.com, 2017). Scholars argue that the manufacturing sector needs to be more responsible for environmental and social sustainability, especially as they are resource intensive (Suh and Lee, 2018).

2.5.3 Small and medium enterprise sustainability drivers and challenges

The literature's findings helped the researcher group key sustainability drivers as internal or external drivers. The internal drivers can be identified as 'instrumental' drivers as they are more proactive (Lozano, 2015). External drivers are measures that are more reactive. SME owners (or managers) may decide to adopt sustainability processes based on their own personal convictions and feel inclined towards the notion of sustainability (Hatak, Floh and Zauner, 2015). Yet, some owners (or managers) remain unconvinced to engage in sustainability. The literature also suggests that SMEs' sustainability behaviour has been linked to financial gains, cost reductions or survival (El Baz et al., 2016; Rosasco and Perini, 2018; Niaki, Torabi and Nonino, 2019). Tables 2-3 and 2-4 summarise the key external and internal sustainability drivers extracted from different literature sources.

Internal Drivers	**Literature Source**
Value-driven	Caniato et al., 2012; Stoughton and Ludema, 2012; El Baz et al., 2016; Laszlo and Zhexembayeva, 2017
Commitment and support of top management	Chan and Pang, 2007; Giunipero, Hooker and Denslow, 2012; Ageron, Gunasekaran and Spalanzani, 2012; Hatak, Floh and Zauner, 2015; Chassé, and Courrent, 2018; Olanipekun et al., 2018
Moral ethical obligation	Lieb and Lieb, 2010; Ha-Brookshire, 2017
Risk management	Krysiak, 2009; Saardchom, 2013; Hofmann et al., 2014; Giannakis and Papadopoulos, 2016; El Baz et al., 2016; Wijethilake and Lama, 2019
Competitive advantage	Pullman, Maloni and Carter, 2009; Giunipero, Hooker and Denslow, 2012; El Baz et al., 2016; Laszlo and Zhexembayeva, 2017; Cantele and Zardini, 2018
Cost reduction	Xia and Tang, 2011; Gilinsky Jr. et al., 2015; Niaki et al., 2019
Economic benefits	Jamali, Zanhour and Keshishian, 2009; Pullman, Maloni and Carter, 2009; Fletcher, 2010; Baumgartner and Rauter, 2017; Rosasco and Perini, 2018
Brand differentiation	Sajjad, Eweje and Tappin, 2015

Table 2-3 Internal sustainability drivers

External Drivers	Literature Source
Customer expectations	Perry and Towers, 2009; Lozano, 2015; Montabon, Pagell and Wu, 2016; Gong et al., 2019
Community expectations	Sharfman, Shaft and Anex Jr., 2009; Oelze, 2017
Reputation and image	Hoejmose, Grosvold and Millington, 2014; Martínez and del Bosque, 2014; Alon and Vidovic, 2015; Sajjad, Eweje and Tappin, 2015; Cowan and Guzman, 2018; Sroufe and Gopalakrishna-Remani, 2019
Other stakeholder pressures	Kogg, 2009; Wolf, 2011; Freudenreich, Lüdeke-Freund and Schaltegger, 2020

Table 2-4 External sustainability drivers

However, authors highlight SMEs' perceived hesitation towards sustainability. SMEs reported to be unaware (or unconcerned) about the negative environmental and social impacts of their products (or processes) (Hassaan, 2016). As such, they considered that the focus should be on the LE instead. Lack of resources or resource constraints (e.g. finance, human) have been cited as a barrier in adopting sustainability practices. SMEs considered the implementation of sustainability to be a financial burden and believe that the initial costs outweigh the long-term savings (Chassé and Boiral, 2017). Other reasons cited are lack of knowledge, lack of specific expertise, limited information and awareness, higher costs, inappropriate regulations and economic uncertainty. The key challenges can be grouped as internal and external. The internal challenges are organisational-related issues (e.g. lack of resources, lack of expertise), while external challenges develop from the environment (e.g. sustainability expectations). Tables 2-5 and 2-6 summarise the key external and internal sustainability challenges extracted from different literature sources.

Internal Challenges	Literature Source
Lack of understanding and knowledge	Cheung, Welford and Hills, 2009; Hassaan, 2016; Evans and Peirson-Smith, 2018
Organisations' power and size	Walker and Jones, 2012; Ageron, Gunasekaran and Spalanzani, 2012; Mathiyazhagan et al., 2013; Bourlakis et al., 2014
Resource limitations	Walker, Di Sisto and McBain, 2008; Bourlakis et al., 2014; Schrettle et al., 2014; Ghadge et al., 2017
Misalignment of strategic goals	Sajjad, Eweje and Tappin, 2015; Álvarez Jaramillo, Zartha Sossa and Orozco Mendoza, 2019

Costs of sustainability and economic expectation	Fitjar, 2011; Busse et al., 2016; Chassé and Boiral, 2017; Caldera, Desha and Dawes, 2019

Table 2-5 Internal sustainability challenges

External Challenges	Literature Source
Lack of suppliers' capability	Ageron, Gunasekaran and Spalanzani, 2012; Grimm, Hofstetter and Sarkis, 2014; Bakos et al., 2020
Higher prices by suppliers	Walker, Di Sisto and McBain, 2008; Reuter, Goebel and Foerstl, 2012; Ramirez, Gonzalez and Moreira, 2014; Caldera, Desha and Dawes, 2019; Mogale et al., 2020
Lack of information	Ageron, Gunasekaran and Spalanzani, 2012; Kache and Seuring, 2014; Govindan et al., 2014; Grimm, Hofstetter and Sarkis, 2016
Lack of customer demand	Sajjad et al., 2015; El Baz and Laguir, 2017; Ghadge et al., 2017; Bakos et al., 2020
Lack of sustainability standard and appropriate regulations	Sajjad, Eweje and Tappin, 2015; Busse et al., 2016; Caldera, Desha and Dawes, 2019
Economic uncertainty	Giunipero, Hooker and Denslow, 2012; Fregonara, Ferrando and Pattono, 2018

Table 2-6 External sustainability challenges

2.5.4 SME sustainability in supply chain management

SMEs constitute more than half of the industry and play a vital part role in the economic landscape in both developed and developing economies (El Baz et al., 2016). However, they are generally characterised as less advanced than the much larger industry leaders. The literature suggests that LEs show stronger sustainability performance. Scholars argue that, regardless of business size, organisations in the modern fashion industry are expected to incorporate SSCM and fulfil multiple, possibly conflicting, objectives (Schaltegger and Wagner, 2017). The BCG proposed that 'industry leaders continue to experiment and advance; the rest of the industry continues to learn from them, moving the industry to better practices' (Globalfashionagenda.com, 2018, p. 7).

Often industry SMEs are part of LEs' supply chains, and are therefore forced to implement sustainability practices and design SSCM strategies (Andersen and Skjoett-

Larsen, 2009; Shankar, Kannan and Kumar, 2017). However, SMEs frequently experience difficulty in influencing their suppliers (Ayuso, Roca and Colomé, 2013). SMEs lack the financial capacity, resource capabilities (Santos, 2011), organisational structure and culture (Johnson and Schaltegger, 2015; Gunarathne and Cooray, 2018; Corazza, 2019) to deal with diffusion of sustainability and maintain SSCM (Hsu, Chang and Luo, 2017). Many SMEs remain sceptical and often reluctant to invest, and they take mostly uncoordinated, opportunistic sustainability development initiatives. SMEs are particularly engaged in alternative responses to internal sustainability (e.g. upcycling, energy consumption) (Goworek et al., 2018). The initial shift towards internal sustainability development followed by SSCM can be acknowledged as a fundamental way to improve sustainability performance, whether based on radical innovations or small incremental changes (Evans et al., 2017).

SME manufacturers operate with low economies of scale and therefore struggle to compete with large mass producers (Goworek et al., 2018). However, the literature findings indicate that SMEs generally have a stronger influence through their leadership that influences the building of new market opportunities (Globalfashionagenda.com, 2018). SMEs operate closely within their local communities, with the notion that local sourcing and local manufacturing are desirable to improve supply chain efficiency and SSCM (Shen, 2014).

Research studies suggest that SMEs lack of power and size limit their ability to influence suppliers (Baden, Harwood and Woodward, 2009; Lee et al., 2017). Therefore, building supplier relationships will be important for SMEs to address the imbalances (Arend and Wisner, 2005). Further, SMEs are often challenged by the complexity of existing environmental and social management tools (e.g. Higg Index, ISO 14001) as they are developed mainly for LEs. Despite the many challenges, there are real-life examples that SMEs can progress towards SSCM (e.g. Rapanui).

However, supplier sustainability efforts in SMEs remain weak (Buffa, Franch and Rizio, 2018; Piscicelli, Ludden and Cooper, 2018). A Sedex report suggested that both the number and severity of environmental and social responsibility violations increase in second-tier and third-tier suppliers (Sedexglobal.com, 2013). One major obstacle for SMEs to improve the sustainability of their supplier base is the lack of supplier network visibility (Busse et al., 2017), hence limiting their ability to influence and improve sustainability within sub-suppliers (Tachizawa and Wong, 2014).

However, the research so far has been focused mainly on direct (first-tier) suppliers, while other upstream suppliers' (sub-suppliers') sustainability has been largely ignored or underrated. The literature suggests that there is an opportunity to advance research from an organisational science perspective to recognise SMEs' sustainability implementation in supply chains (Walker et al., 2014). Spence and Painter-Morland (2011) discuss the unmet need for new theoretical, normative and empirical studies of SMEs, and the SME context is still undergoing the process of theory building. It is foreseeable that this research area will continue to evolve, and the theory-building process will continue for years to come. It has not reached the level of maturity to be tested through surveys; thus, this research suggests examining the subject through multiple case studies to develop an in-depth insight of SME research.

2.6 Supply chain transparency

Historically, transparency efforts resulting from legal requirements have led to quality and safety developments; according to Trienekens et al. (2012) current developments have driven more environmental- and social-focused supply chains to yield new exigencies. Beulens et al. (2005) interpreted transparency as 'the degree to which a supply chain player has access to relevant information about products, processes, and flows of capital without loss, noise, delay and distortion' (Beulens et al., 2005, cited in Bastian and Zentes, 2013, p. 554). Bhaduri and Ha-Brookshire (2011) defined 'transparency as visibility and accessibility of information relevant for business practices' (p. 136). Pant, Prakash and Farooquie (2015) defined transparency as 'the extent to which all its stakeholders have a shared understanding of and access to the product related information without loss, noise, delay and distortion' (p. 386). In general, transparency is about disclosure of information (Mol, 2015). This entails disclosure of supplier names, supplier conditions, facility information, sustainability information, and purchasing practices (Egels-Zandén, 2014).

Because supply chain transparency is a topic of great interest for organisations outside academia, there are additional definitions that illuminate the confusion behind the concept; for example, Fashion Revolution, a non-profit organisation, describes transparency as openness, communication and accountability (Fashionrevolution.org, 2018). The Fair Wear Foundation, a European multi-stakeholder initiative, noted that transparency means disclosing information is about suppliers, sourcing practices, and pricing (Fairwear.org., 2014). The disclosure of relatively hidden sought-after supplier information acts as 'a tool for holding powerful actors accountable' (Dingwerth and Eichinger, 2010, p. 74).

The importance of information disclosure echoes in the SSCM literature (Dubbink, Graafland and Van Liedekerke, 2008; Doorey, 2011). Ambiguous and inconsistent definitions of transparency add a degree of confusion (Egels-Zandén, 2014). It is unclear which pieces of information should be disclosed, to what degree, to which stakeholders, and under what conditions. It is also unclear what 'without loss, noise, delay, and distortion' means when discussing transparency. The literature suggests that transparency entails disclosing supplier sustainability conditions, while disclosing supplier names and addresses links to traceability. It is important to recognise the distinction between transparency and traceability. Some authors equate 'transparency' with 'traceability', while most literature focuses on one of the terms, which leads to limited and often dualistic framing of transparency. Despite the confusion, reports suggest that transparency and traceability could increase organisational legitimacy.

Egels-Zandén, Hulthén and Wulff (2015) outline that organisational disclosure should include '(i) the names of the suppliers involve in producing the products (i.e., traceability), (ii) information about sustainability conditions of suppliers, and (iii) the buying firms purchasing practices' (p. 98). Yet, many organisations fail to provide supplier sustainability information. For example, H&M publishes its first-tier supplier names without disclosing the sustainability conditions. As Garcia-Torres et al. (2019) argue, 'transparency in supply chains should not just be transparency for transparency's sake, but rather must be transparency for sustainability' (p. 100). Alternatively, Fairtrade associations publish factory audit reports and evaluate organisations' sustainability performance without disclosing organisational names.

Critics argue that an inevitable part of supplier disclosure is the risk of reproduction (or duplication), while lack of standardised disclosure process adds disorder in transparency. Organisational leaderships remain hesitant to reduce information asymmetry as supplier information is of great proprietary and competitive value for organisations (Doorey, 2011). However, supplier disclosure arguably allows participants to communicate better, align sustainability strategies, and pursue economic rationality with a greater awareness of sustainable consequences.

2.6.1 Evaluating supply chain transparency

Many authors have noted that not every industry has been the subject of research on the degree to which transparency has been achieved (Wilhelm et al., 2016; Garcia-Torres et al., 2019). Industries like fashion (Köksal et al., 2017) and automotive

(Kalaitzi, Matopoulos and Clegg, 2019) struggle to achieve visibility and transparency within the entire supply chain.

One main difficulty for organisations that intend to develop sustainability in their supply chain is the lack of supplier visibility (Busse et al., 2017), which limits organisations' ability to influence sustainability within their supplier base (Hartmann and Moeller, 2014; Tachizawa and Wong, 2014). This corresponds to the notion that SSCM performance decreases with increased supplier distance (Sauer and Seuring, 2018).

Advancing transparency for sustainability is particularly important in dynamic and complex retail and fashion industries' supply chains owing to its high volume, global scope, fierce competition, and intensive resource use (Stevenson and Cole, 2018). Non-profit initiatives like Fashion Revolution have introduced a 'fashion transparency index' that evaluates key sustainability-related paradigms by examining organisations' policy and commitment, tracking and examining traceability, and reviewing organisations' auditing schemes and remedial actions, stakeholder engagement, collaboration, and governance mechanisms (Fashionrevolution.org, 2018). The index is valuable to compare apparel and footwear brands against one another. It evaluates brands' practices toward sustainability and transparency. However, Fashion Revolution fails to present a transparent evaluation of the adopted methodology. Therefore, it is difficult to examine what areas were evaluated to develop the transparency score. The index fails to distinguish publicly available information and internal information, thus effectively lowering the scores for some brands due to lack of internal knowledge.

Project JUST is an online platform that evaluates fashion brands based on ethics and sustainability. The assessment model evaluates multiple business aspects, such as labour conditions, environment, community, innovation and transparency. The model offers qualitative assessments of the brands' environmental and social practices as it provides an easy-to-understand breakdown of information with corresponding links to source information. However, it lacks a standardised approach; more importantly, it is difficult to identify whether any sections of information are still to be assessed or whether they are missing.

Rankabrand is an online platform that offers sustainability performance for fashion brands. Brands are assessed and labelled from best (A) to worst (E), based on a standard questionnaire that examines carbon emissions, climate change, environmental policies and labour conditions. Rankabrand examines organisations'

network transparency such as whether the brands publish names of the suppliers and supplier codes of conduct. The questionnaire is useful for comparative analysis of brands, but it only evaluates information disclosed to the public, while ignoring internal information. Therefore, many aspects of supply chain transparency remain unaddressed in the questionnaire.

The Sustainable Apparel Coalition (SAC), a non-profit organisation, has collaborated to develop the Higg Index. This is one of the most recognised metrics to evaluate sustainability within the apparel and footwear network. The Higg Index provides a thorough and standardised evaluation of environmental practices as well as social practices. The assessment most prominently considers management performance and evaluates transparency based on public disclosure without any attention to supply chains' internal knowledge. In addition, the index is a voluntary measure. Therefore, organisations are free to distort unsustainable supplier information or completely refrain from disclosing such network partners. Despite the thoroughness of the evaluation process, the Higg Index also fails to encompass transparency in its entirety.

The literature reveals that very few attempts have been made within academia to design a framework or methodology to evaluate supplier transparency, mainly because of inconsistent heterogeneous definitions of transparency. Egels-Zandén et al. (2015) suggested a framework to define and evaluate supply chain transparency but they did not reveal the adopted methodology or the questions for the establishing the framework, which is used in the case of Nudie Jeans, a Swedish brand that served as the case study. Additionally, the framework develops a distinct perceptive of supplier transparency, yet does not address underlying factors that increase or decrease the degree of transparency.

Bastian and Zentes (2013) presented a fuzzy definition of transparency. The quantitative analysis displayed factors that influence supplier transparency; however, it did not provide a framework or methodology to evaluate transparency, leaving the concept open for interpretation.

Good on You is a fashion brand ranking system that helps consumers make better purchasing decisions based on sustainability data. It uses information from the brands' own reported data and certification schemes (e.g. Fairtrade and Global Organic Textile Standard) to rank brands. The rating system collects information and scores each brand against issues for labour, environment, and animal cruelty. Consistent with the

requirement for brands to be transparent, all data are obtained from public sources. The information is good but not very comprehensive: there are a few gaps in the rating system, which make it more subjective. The rating system only evaluates based on what is published, so the lack of data skews the ranking. The ranking only considers first-tier suppliers; often other supplier information further upstream is hidden and not reflected on the rating system. Disclosure information largely depends on the voluntary promise of organisations to practise accurate disclosure, which can only be questionable. Table 2-7 provides a summary of the advantages and disadvantages of popular transparency models.

Model/Authors	**Advantages**	**Disadvantages**
Fashion Revolution	Fashion Transparency Index measures rates supply chain performance related to transparency.	No clear definition of supply chain transparency and assessment methodology not clearly defined.
Project JUST	Qualitative assessment of sustainability practices and transparency in supply chain.	No standardised format. Reliant on publicly available information.
Rankabrand	Standardised methodology to measure sustainability in supply chain.	Not all aspects of sustainability in supply chain are measured. Use only publicly available data.
Sustainable Apparel Coalition	Higg Index evaluates sustainability, including transparency.	Limit to self-reported data. No evaluation on sub-suppliers.
Egels-Zandén et al. (2015)	Established framework for defining supply chain transparency.	No clear methodology for evaluating supply chain transparency.
Good on You	Easy-to-understand ranking system that helps make better purchasing decisions.	Only relies on publicly available data. Considers only first-tier supplier information. Lack of consideration for economic performance.

Table 2-7 Summary of advantages and disadvantages of supply chain transparency evaluation tools

In summary, the literature review reveals an ambiguous definition of transparency as well as a lack of a standardised methodology to evaluate transparency, which serves as an important motivator to develop a new and robust method to address the shortcomings.

2.6.2 Sustainability performance in supply chain

In general, performance measures are defined as 'ongoing monitoring and reporting of program accomplishments, particularly progress towards pre-established goals. Performance measures may address the type or level of program activities conducted, the direct products and services delivered by a program (outputs), and/or the results of those products and services (outcomes)' (David and Jenson, 2014 p. 3). Verifiable measures could be used to communicate, control and improve organisations' performance (Melnyk et al., 2014). The popular perception 'if you cannot measure it, you cannot manage it' (Kaplan and Norton, 1992) highlights the significance of developing measurements. Nevertheless, traditionally financial reporting measures only provide economic performance (e.g. return on capital employed, return on investment).

With the popularity of sustainability, traditional financial performance needs to broaden to include environmental and social performance (i.e. non-financial reporting – NFR) (Farneti and Guthrie, 2009). Dočekalová and Kocmanová (2016) suggested that sustainability performance tools must meet certain conditions, such as (i) integrating TBL aspects; (ii) incorporating financial and non-financial indicators; (iii) emphasising industry specifics; (iv) being understandable and easy to interpret; (v) the ability to benchmark; (vi) the availability of the information and (vii) simple calculations.

However, critics have argued that NFR produces an overload of information (Eppler and Mengis, 2004), and lack of trust in NFR information has created scepticism towards measurement tools (Gulin, Hladika and Mićin, 2018). Unlike financial information, which is often standardised, there are no institutionalised standards for NFR (Schaltegger et al., 2014a). Current sustainability measurement tools are characterised by a high level of heterogeneity (Van Der Ploeg and Vanclay, 2013) (see Appendix A: Sustainability performance measures). According to Parra, Ripoll-i-Alcon and Marti (2018), organisations continue to encounter the dilemma of measuring sustainability so that information is consistent, complete and orderly. They fail to provide valuable sustainability performance in supply chains (Winter and Knemeyer, 2013; Seuring and Gold, 2013).

A review by Singh et al. (2009) of sustainability indices highlighted that, despite efforts to evaluate sustainability performance, only a very small number of approaches consider all three dimensions. Arguably, existing performance measurement and management systems (e.g. Balanced Score Card (BSC), Kanji Business Excellence Model (KBEM)) attempt to integrate sustainability performance (Janjić, Todorović and Jovanović, 2015). However, they fail to consider SMEs and suppliers beyond the first-tier (or direct) suppliers and, more importantly, performance measurement tools mainly consider LEs (Taticchi, Tonelli and Cagnazzo, 2010). According to Taticchi, Tonelli and Pasqualino (2013), sustainability measurement requires a certain degree of flexibility and the 'one size fits all' perspective will not be suitable.

The inadequacy and complexity of existing measurement tools and lack of supply chain transparency inspire this research. The aim is to develop a simple, easy-to-understand sustainability performance model that rates (or ranks) suppliers based on their adopted sustainability practices. The supply chain sustainability performance model needs to consider economic, environmental and social performance (Schaltegger et al., 2014b). In order to build the foundation, the research incorporates the primary sustainability measurement in line with the TBL concept.

2.6.3 Sustainability performance measurement criteria

Based on the extensive literature review, the research identified key measurement criteria for each sustainability dimension that are established through key subjects (or indicator) and several sub-subjects (or sub-indicator). It is important to note that the term 'subject' refers to broader expectation and 'sub-subject' to more specific sustainability expectations. In order to preserve the balance among the three dimensions, the research integrates five economic, five environmental and five social measurement elements. The identified subjects and sub-subjects are applied to develop the conceptual sustainability performance model.

2.6.3.1 Economic measurement criteria

Subject	Sub-subject	Description
Reliability	The reliability of customer service	Customer satisfaction in terms of products or services, quality, and time.
	The reliability of other services	Impact on supplier and sub-supplier.
	The reliability of inventories	Impact on stock.

Subject	Sub-subject	Description
	The reliability of forecasts	Impact on the trends and forecasts.
Fitzgerald et al., 1991; Gunasekaran, Patel and Tirtiroglu, 2001; Neely et al., 2002; Kainuma and Tawara, 2006; Matos and Hall, 2007; Vachon and Klassen, 2008; Zhu, Sarkis and Lai, 2008; Shepherd and Günter, 2010; Foerstl et al., 2015; Canzaniello, Hartmann and Fifka, 2017; Wichaisri and Sopadang, 2018.		
Reactivity	The reactivity of the design	Impact on the design and development of products or services.
	The reactivity of purchases	Impact on procurement.
	The reactivity of supplies	Impact due to lead times.
	The reactivity of sales	Impact on time-to-market products.
	The reactivity of production	Impact on time of production of products or services.
	The reactivity of distribution	Impact on time of distribution of products or services.
	The reactivity of return management	Affect time of return flows.
	The overall responsiveness of the supply chain	Overall delay in the supply chain.
Lynch and Cross, 1991; Barbiroli and Raggi, 2003; Matos and Hall, 2007; Zhu, Sarkis and Lai, 2008; Vachon and Klassen, 2008; Sarkis, Zhu and Lai, 2011; Busse et al., 2016; Suh and Lee, 2018.		
Flexibility	The flexibility of suppliers	Supplier adaptability.
	The flexibility of trade	Ability to adapt.
	The flexibility of production	Capacity to adapt human and technical capabilities.
	The flexibility of distribution	Reactivity of carriers.
Fitzgerald et al., 1991; Gunasekaran, Patel and Tirtiroglu, 2001; Barbiroli and Raggi, 2003; Zhu, Sarkis and Lai, 2008; Vachon and Klassen, 2008; Sarkis, Zhu and Lai, 2011; Trapp and Sarkis, 2016.		
Financial performance	The financial performance of design	Cost related to the design and development of products.
	The financial performance of purchases	Cost related to purchases of raw materials or components.
	The financial performance of supplies	Cost of supplies of raw materials or components.

Subject	Sub-subject	Description
	The financial performance of production	Cost related to the production of products.
	The financial performance of distribution	Cost related to the distribution of products or services.
	The financial performance of management of return	Cost of return flows.
	The overall financial performance of the supply chain	Cost related to the supply chain.
Azapagic and Perdan, 2000; Gunasekaran, Patel and Tirtiroglu, 2001; Olsthoorn et al., 2001; Zhu and Sarkis, 2004; Krajnc and Glavič, 2003; 2005; Labuschagne, Brent and Van Erck, 2005; Kainuma and Tawara, 2006; Matos and Hall, 2007; Zhu, Sarkis and Lai, 2008; Vachon and Klassen, 2008; O'Connor and Spangenberg, 2008; Frame and O'Connor, 2011; Morrison-Saunders and Pope, 2013; Khan et al., 2018.		
The quality	The quality of the product or service	Ability of products or services that meet consumer expectations.
	The performance quality of suppliers	Ability of suppliers to meet customer expectations.
	The quality of production	Quality of products manufactured.
Lynch and Cross, 1991; Gunasekaran, Patel and Tirtiroglu, 2001; Barbiroli and Raggi, 2003; Matos and Hall, 2007; Zhu, Sarkis and Lai, 2008; Vachon ad Klassen, 2008; Green et al., 2012; Trapp and Sarkis, 2016.		

Table 2-8 Economic measurement criteria

2.6.3.2 Environmental measurement criteria

Subject	Sub-subject	Description
Environmental management	Environmental financial arrangements	Investment in environmental protection.
	Environmental certification	Environmental protection-related certifications (e.g. EMS, ISO 14001).
	Environmental compliance	Respect of environmental regulations in general, or particularly if the industry is specific and regulated (e.g. automobiles, electrical compliance).
	Employee involvement in protecting the environment	Number of employees involved in environmental protection.
Noci, 1997; Azapagic and Perdan, 2000; Olsthoorn et al., 2001; Veleva and Ellenbecker, 2001; Zhu and Sarkis, 2004; Henri and Journeault, 2008; Nawrocka and Parker, 2009; Tseng, Divinagracia and Divinagracia, 2009; Darnall, Henriques and Sadorsky, 2010; Wong, 2013; Yusuf et al., 2013; Kim and Hall, 2015; Presley and Meade, 2018.		
Resource management	Renewable energy	Renewable energy consumption (e.g. non-fossil sources, and fossil).
	Recycling water	Use of recycled and disposes of contaminated water.
	Inputs from recycling	Consumption of inputs (e.g. raw materials, packaging, and consumables) from recycling.
	Recyclable outputs	Impact on producing outputs (e.g. finished goods, packaging) recyclable, selling to others.
Azapagic and Perdan, 2000; Veleva and Ellenbecker, 2001; Barbiroli and Raggi, 2003; Gauthier, 2005; Krajnc and Glavič, 2005; Labuschagne, Brent and Van Erck, 2005; Michelsen, Fet and Dahlsrud, 2006; Matos and Hall, 2007; Henri and Journeault, 2008; O'Connor and Spangenberg, 2008; Kainuma and Tawara, 2006; De Benedetto and Klemeš, 2009; Tseng, Divinagracia and Divinagracia, 2009; Golicic and Smith, 2013; Van Hoof and Lyon, 2013; Henninger, Alevizou and Oates, 2016; Todeschini et al., 2017.		
Pollution	Recyclable waste	Impact from waste (e.g. scrap, waste,

Subject	Sub-subject	Description
		packaging, etc) recycles from the production cycle.
	Air pollution	Includes CO_2, NOx, SOx, lead, mercury, or volatile organic compounds.
	Water pollution	Direct spills deliberate or accidental in surface waters, unintentional runoff to surface water or infiltration to groundwater.
	Soil pollution	Discharges of heavy metals, hydrocarbons, dioxins, or phenols.
Gauthier, 2005; Krajnc and Glavič, 2005; Matos and Hall, 2007; Henri and Journeault, 2008; O'Connor and Spangenberg, 2008; Kainuma and Tawara, 2006; Nawrocka and Parker, 2009; De Benedetto and Klemeš, 2009; Dissanayake and Sinha, 2012; Poh and Liang, 2017; Wu, 2017.		
Dangerousness of content	Other pollution	Impact including noise, odours, visual pollution, vibration, and radiation.
	Hazardous input	Impact on inputs (e.g. raw materials, packaging).
	Hazardous output	Impact on the outputs (e.g. finished goods, packaging).
Azapagic and Perdan, 2000; Barbiroli and Raggi, 2003; Gauthier, 2005; Krajnc and Glavič, 2005; Michelsen, Fet and Dahlsrud, 2006; Golicic and Smith, 2013; Van Hoof and Lyon, 2013; Winter and Lasch, 2016; Khurana and Ricchetti, 2016.		
The natural environment	Hazardous waste	Impact on waste (e.g. scrap, waste, and packaging).
	Ecosystem	Ecosystem that contributes to the well-being of society through services such as supply of food, water or support devastations. This is to value, protect and restore.
	Biodiversity	Variability of the living world in all forms includes diversity within or between species and ecosystems. Protecting biodiversity ensures

Subject	Sub-subject	Description
		security for natural ecosystems.
	Land use	Efficient use of land.
	Urban and rural development	Urban and rural development.
Zhu and Sarkis, 2004; Matos and Hall, 2007; Henri and Journeault, 2008; Yusuf et al., 2013; Henninger et al., 2017; Jones and Comfort, 2019.		

Table 2-9 Environmental measurement criteria

2.6.3.3 Social measurement criteria

Subject	Sub-subject	Description
Labour relations	Employment	Employment in the organisation. Contributes to achieving objectives, improve living standards through full employment and job stability.
	Labour conditions	Working conditions and social protection of employees. For example, wages and other forms of compensation, holidays, disciplinary, rest periods, well-being, access to drinking water, and access to medical.
	Social dialogue	This includes all types of negotiation, consultation, or exchange of information between stakeholders relating to economic and social issues.
	Health and safety	Health and safety of employees. This is to promote and maintain the highest degree of physical and mental well-being. It is also about the protection of workers against risks to health and safety.
	Human resources development	This is expanding the choices people by developing skills, enabling women and men to be knowledgeable and to have a decent standard of living.

Subject	Sub-subject	Description
Azapagic and Perdan, 2000; Veleva and Ellenbecker, 2001; Gauthier, 2005; Krajnc and Glavič, 2005; Labuschagne, Brent and Van Erck, 2005; O'Connor and Spangenberg, 2008; Tseng, Divinagracia and Divinagracia, 2009; Golicic and Smith, 2013; Van Hoof and Lyon, 2013; Perry, Wood and Fernie, 2015; Lawless and Medvedev, 2016; Jahdi, Poldner and Koehler, 2017.		
Labour rights	Forced labour and child labour	Absence of forced and child labour.
	Freedom of association	Ability of workers to be represented.
	Discrimination	Non-discrimination, on ethnicity, race, gender or other. Income, working conditions and hiring policies that should be based on job requirements.
Azapagic and Perdan, 2000; Matos and Hall, 2007; Wolf, 2011; Merk, 2014; Hossain, 2014; Winter and Lasch, 2016; Seck, 2018.		
Community participation	Local roots	Business community and partnerships with local organisations and stakeholders.
	Education, culture, and technological development	Impact on education, cultural and technological development of the community fundamental to social development.
	Employment and wealth creation	Creation of jobs in the community and skill development.
	Health	Impact on the health and well-being in the community.
	Societal investment	Societal investment in the company to the community.
Tseng, Divinagracia and Divinagracia, 2009; Todeschini et al., 2017; Yawar and Seuring, 2017.		
Consumers	Marketing and information	Information provided to consumers.
	Health and safety	Health and safety of consumers.
	Data protection and privacy	Practice of data protection and respect for consumer privacy.
	Access to essential services	Access to essential services such as electricity, gas, water and telephone.

Subject	Sub-subject	Description
Veleva and Ellenbecker, 2001; Kainuma and Tawara, 2006; Tseng, Divinagracia and Divinagracia, 2009; Yusuf et al., 2013; Henninger et al., 2017.		
Business practices	Corruption	The fight against corruption.
	Competition	Competitive practices. Free market conditions.
	Sphere of influence	Organisation can influence other organisation, for example purchasing decisions, decisions on the SSCM.
Matos and Hall, 2007; O'Connor and Spangenberg, 2008; Morris and Staritz, 2014; Hvass, 2015; Henninger, Alevizou and Oates, 2016; Todeschini et al., 2017.		

Table 2-10 Social measurement criteria

In order to develop more academic rigour and revalidate the measurement criteria identified through the literature, the findings are re-examined against GRI performance indicators. GRI is arguably the most trusted and credible framework for sustainability reporting that is used in organisations (Lock and Seele, 2016). Many researchers have used GRI to develop sustainability indexes for cross-comparisons of organisations (Krajnc and Glavič, 2005) and levels of sustainability practices (Reynolds and Yuthas, 2008). This research recognises the comprehensive nature of the GRI tool and uses the framework to revalidate the sustainability performance criteria derived from literature (see Appendix B: Performance measurement criteria against GRI) and displays the connection between the identified subjects and sub-subject issues with the established GRI indicators.

2.6.4 Developing conceptual sustainability performance measurement model

A systematic and easy-to-implement supply chain sustainability performance model has yet to be developed (Steinhöfel et al., 2019). Therefore, this research uses the key sustainability measurement criteria derived from literature review to develop the foundation for a simple fit-for-SMEs sustainability performance model to rate (or rank) suppliers.

Figure 2-8 depicts the key performance criteria derived from the existing literature of sustainability management. Previously identified subject measurements facilitate the evaluation of TBL performance (i.e. economic, environmental and social performance) that builds the overall sustainability performance. The proposed sustainability

performance model introduces a measurement for the economic, environmental and social performance of the entire supplier base.

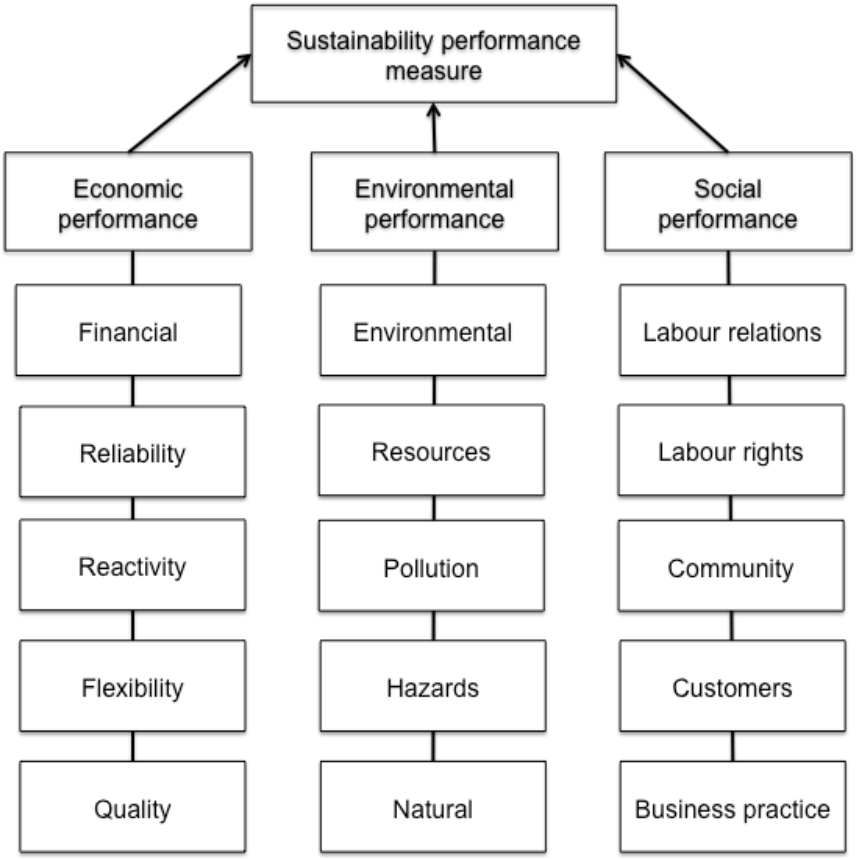

Figure 2-8 Foundation for the performance model

Supplier sustainability performance aggregated into a single weighted measure can determine an organisation's overall performance (Hutchins and Sutherland, 2008). This research adopts a similar interpretation with the proposed sustainability performance measure by aggregating each supplier sustainability performance in the supply chain. The model considers supply chain sustainability from the source to the retailer by allocating the proportionate sustainability score to the subsequent phase (or tier).

Business sustainability performance measurement

Initially, the model proposes to assess the sustainability performance beginning from the source (i.e. tier n), the performance is based on the organisation's (or business's) sustainability conformity of economic, environmental and social behaviour.

Studies suggest the use of the 'pairwise' comparison scale, which was first introduced by Saaty (1990) for the analytic hierarchy process (AHP). AHP has been extensively applied in many studies to analyse and compare alternative decision scenarios (e.g.

Shaw et al., 2013; Opasanon and Lertsanti, 2013). A simplified version of Saaty's comparison model is proposed for sustainability performance evaluation. The well-known psychological theorist Miller supported the unit difference between conformity scales in Table 2-11. Individual organisational sustainability score is based on the sustainability conformity level (on a scale of 1–9) based on the previously identified sustainability measurement criteria. The conformity level reflects organisational performance against economic, environmental and social aspects. The conformity level is evaluated according to absolute variation to no variation (the lower the score, the greater the variation). Based on the sustainability conformity levels, each supplier will have an individual sustainability score.

Score Based on the Degree of Conformance		
Score	9	No variation
Score	7	Weak variation
Score	5	Strong variation
Score	3	Demonstrated variation
Score	1	Absolute variation
Score	2, 4, 6, 8	Intermediate variation

Table 2-11 Score base

Supply chain sustainability performance measurement

This is followed by a sustainability performance assessment of the subsequent buying (i.e. third-tier, second-tier, first-tier and retailer) organisation within the supply chain. Like the product chain downstream within the supply chain, the model proposes to aggregate proportional (i.e. weighted based on the buying organisation's purchasing value) sustainability performance score from the previous supplier to the immediate buying organisation. This is then incorporated into the previously assessed individual organisational sustainability score to develop an aggregate sustainability performance score for the supply chain. The weighted proportional approach helps distribute supplier sustainability efforts across the entire supplier base. The proposed model can be used to assess individual sustainability performance, as well as the overall supply chain sustainability performance.

As an example, the sustainability performance score for the tier n (i.e. x_n) is calculated; however, only the proportional score of tier n (i.e. $x_{n\%}$) is allocated to the immediate buying firm, which is weighted based on the percentage of the buying firm's purchase volume. Then the buying organisation's sustainability performance score is based on

the individual organisational sustainability score (i.e. x_{n-1}) aggregated with the supplier proportional sustainability score (i.e. $x_{n\%}$), which provides the sustainability score of the supply chain with two partners (i.e. $\sum x_{n-1}+x_{n\%})_{/2}$. Similarly, the weighted sustainability performance score can continue downstream up to the retailer. Finally, the retailer sustainability performance will be the weighted average score of the entire supply chain (i.e. $\sum x_{n-3\%}+x_r)_{/2}$.

Critics consider that the weighted approach can easily become too subjective a process (Jha and Murthy, 2003) so it is important to consider how it may be constructed. The proposed weighted approach takes supplier industry characteristics to develop the three-dimensional performance. The supply chain comprises multiple sectors in one industry, and therefore requires diverse performance measurements. As a result, a one-size-fits-all model is not ideal. The proposed model has the capability to value sustainability measurements specific to each sector within an industry; for example, cotton farmers' sustainability performance initiatives are vastly different from fabric manufacturers' sustainability performance expectations and initiatives. Therefore, transferring the appropriate sector-specific sustainability performance enables comparison against the same industry benchmarks.

Display of business and supply chain sustainability performance measurement

The researcher proposes to display the sustainability performance as displayed in Figure 2-9, which emphasises the business sustainability rating and supply chain sustainability rating. In order to convert the score into a rating, the researcher proposes to translate the score based on a predetermined rating parameter shown in Table 2-12.

Sustainability Score	Rating
90+	A
80–89	B
70–79	C
60–69	D
40–59	E
1–39	F

Table 2-12 Parameters for the sustainability rating

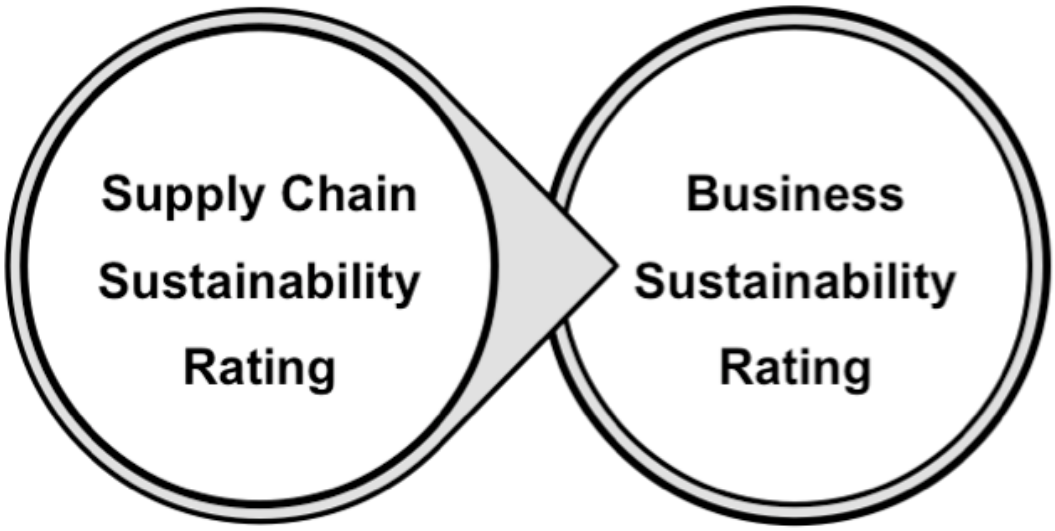

Figure 2-9 Proposed sustainability rating display

The concept of a combined measure is a novel approach. The proposed multidimensional measure can convert supplier sustainability information without exposing the supplier base, thereby achieving transparency without disclosing sensitive supplier information.

2.7 Review of theoretical bases

Good research needs to be grounded on theory (Defee et al., 2010). However, a specific theory was not applied prior to the literature review as sustainability and SSCM is a dynamic and expansive research area: focusing on a single theory could constrain the review process and exclude relevant literature and theoretical direction.

The research field remains dynamic, expansive and evolving; therefore, the research purposefully avoids using a single theory to establish the theoretical underpinning. The literature search uncovered a series of most discussed management and operational theories. They are the analytical tools to help explain the outcomes of phenomena to make sense of complex phenomena.

Prior studies have mainly applied single theories to examine sustainability and SSCM (Carter and Easton, 2011) (see Appendix C: Summary of studies using single theoretical lens). This research uses multiple theories to provide deeper knowledge and overcome the inherent complexities and challenges associated in the field (Formentini and Taticchi, 2016).

The literature suggests integrating one or more theoretical underpinnings to explain a phenomenon as it (i) enhances the knowledge of the phenomenon, (ii) allows analysis of the empirical implications of the theory and its limitations, (iii) is a necessity to develop the research area and (iv) avoids influence of bias conclusions (Zorzini et al., 2015; Yawar and Seuring, 2017). Therefore, a combination of lenses rather than a single theory makes an important theoretical contribution to the research field. Researchers have also argued that multiple theoretical approaches have been underemployed in SSCM research (Tachizawa and Wong, 2014). The approach enables theory triangulation, which is relevant for comprehensive qualitative research. Theory triangulation uses multiple lenses and can yield diverse findings that can bring new insight, interpretations, and broaden perspectives of a phenomenon (Flick, 2004). This review is not all-encompassing; nevertheless, the identified theories provide both internally and externally oriented underpinnings that can serve to identify the elements for the diffusion of sustainability and sustainability in supply chain performance and support the theoretical perspectives for analysis.

This research examines five theories; namely, the resource-based view (RBV) (e.g. Carter and Rogers, 2008; Sarkis, Gonzalez-Torre and Adenso-Diaz, 2010; Pagell, Wu and Wasserman, 2010; Barrutia and Echebarria, 2015), institutional theory (INT) (e.g. Bansal, 2005; Kauppi, 2013; Glover et al., 2014; Bäckstrand and Kronsell, 2015; Herold, 2018), social network theory (SNT) (e.g. Priem and Swink, 2012; Ashby, 2016), entrepreneurship theory (ERT) (e.g. Clarke and Holt, 2010; Redclift, and Springett, 2015; Berglund and Sandström, 2017; Muralidharan and Pathak, 2018) and stakeholder theory (ST) (e.g. Park-Poaps and Rees, 2010; Liu et al., 2016; Yawar and Seuring, 2017; Schaltegger, Hörisch and Freeman, 2019) were fundamental to underpinning SSCM. The application of multiple theoretical views offers contextual underpinnings that provide the foundation for SSCM.

However, it is important to recognise that conclusions made using one or more theories are not necessarily the final word or the discovery of the truth about the phenomenon. It is only one way or lens to look at aspects of a phenomenon, just one more interpretation within a specific context (Zorzini et al., 2015). Also, the literature has shown an overlap and integration of these theories in different couplings to explain various sustainability in supply chain phenomena.

2.7.1 Resource-based view (RBV)

Findings suggest that RBV is one of the most cited theories in management research. RBV assumes that industrial organisations are profit-maximising entities that operate rationally in distinctive markets based on the deployment of tangible and intangible (valuable, rare, inimitable and non-replaceable) resources to build competitive advantage (Gold, Seuring and Beske, 2010b; Liu and Liang, 2015).

Wernerfelt (1984) was one of the first to connect organisations' market positions to resource positions. RBV was further advanced by scholars Barney (1986, 1991) and Dierickx and Cool (1989). Dierickx and Cool (1989) integrated asset stocks and flows to explain the development of competitive advantage. It was highlighted that organisations' capacity to continuously recombine their resources help them to develop different performance outcomes. Barney (1991) suggested that organisations require rare and valuable resources to build competitive advantage. Hart (1995) extended the theory based on the organisations' relationship with the natural environment, called the natural resource-based view (NRBV). NRBV comprises pollution prevention, product stewardship, and sustainability development strategies to build organisations' competitive advantage. Grant (1996) included knowledge as the most strategically significant and most difficult to imitate resource.

The theory suggests that organisational resources must establish specific characteristics to institute competitive advantage: these must be (i) valuable, i.e. the enterprise can leverage opportunities or neutralise threats, in other words allow the organisation to reduce production costs or differentiate to be ahead of its competitors; (ii) rare, i.e. a specific valuable resource that is difficult to find among competitors; (iii) imperfectly imitable, i.e. not feasible for an organisation to copy or imitate, and (iv) non-substitutable, i.e. not capable of being duplicated or substituted (or too costly to duplicate or substitute) (Barney, 1991; 2001).

Sirmon, Hitt and Ireland (2007) argued that having resources is necessary but to achieve competitive advantage organisations need to effectively manage those resources. Grewal and Slotegraaf (2007) highlighted the importance of managing resources. Armstrong and Shimizu (2007) suggested that the attributes of entrepreneurs, managers and their roles are significant in building competitive advantage. Therefore, in order to manage organisations, individual resources and bundle resources, organisations must develop capabilities. These capabilities are

highlighted as sources of competitive advantage (Teece, Pisano and Shuen, 1997). Beske (2012) suggested that capabilities can link environmental and social dimensions to build sustainability. Organisations may gain advantages by adopting new product designs, cost reduction, reducing waste, pollution and conversation strategies, and including suppliers in the decision-making process to develop a sustainability vision.

Critics have argued that the locus of competitive advantage depends on the characteristics of individuals, personal values, the rational model of entrepreneurs and decision makers rather than resources or relationships (Foss et al., 2008). Sirmon and Hitt (2009) revealed the importance of designing and implementing strategy to offer a superior product to customers and thereby gain an advantage. Arguably, organisations can develop entrepreneurial learning and unique market conditions that are difficult to replicate such as creativity, innovation and entrepreneurs' vision could initiate new resources and capabilities result in competitive advantage.

The literature highlights the importance of coordination, cooperation and collaboration for building competitive advantage as organisations can benefit from other organisations' resources (Schulz and Flanigan, 2016). A collaborative approach may act as a dynamic capability, which leads to a sustainable competitive advantage, whereas mainstream enterprise with self-interest will lack the ability to harness the potential advantage.

Sustainability research suggests that for an organisation to improve their competitive advantage they need to first adopt internal sustainability (Barratt and Barratt, 2011). The adoption of sustainability practices may result in resources that are valuable, rare and difficult to imitate, resulting in competitive advantage (e.g. Hunt and Davis, 2012; Laszlo and Zhexembayeva, 2017). RBV on SCM argues that collective resources from supply chain can build competitive advantage. RBV provides a unique opportunity to analyse the supply chain by examining individual and collective supply chain approaches (e.g. Williams, Maull and Ellis, 2002). Each approach requires specific resources to achieve competitive advantage. Integrating individual and collective resources and capabilities across the supply chain can create a competitive advantage. Therefore, the SSCM literature emphasises the importance of collaborative partnerships as a strategic resource (Gold, Seuring and Beske, 2010b; Wilding et al., 2012c). Collaborative supplier relationships could produce long-term 'win–win' solutions (Braggins and Mehrjerdi, 2009). Besides the supply chain, other stakeholder

relationships such as industry coalitions and NGOs help build organisational capabilities.

Recent research has employed RBV to underpin sustainability. For example, Elijido-Ten (2017) combined the RBV and prospect theory lenses to investigate the determinants of environmental (i.e. climate change) sustainability performance on LEs. Wagner (2015) combined RBV with ST and INT to test the impact of stakeholder demand on some Dutch and German manufacturing organisations' integration of sustainability. Halme and Korpela (2014) employed the theoretical lens of RBV to investigate sustainability innovations in 13 Nordic SMEs. The research was able to identify the resource combinations require to innovate for sustainability. While Garavan et al. (2016) used RBV to explore sustainability in SMEs with an emphasis on human resource management, Hörisch, Johnson and Schaltegger (2015) used a knowledge-based view to investigate the effect of the organisational size to the degree of application of sustainability tools in German SMEs and LEs. Carter and Easton (2011) used RBV and NRBV to study performance linked with supply chains' environmental and social practices. Aragón-Correa et al. (2008) applied RBV to explore SMEs automotive repair industry in southern Spain for the development of environmental strategies. Markley and Davis (2007) used NRBV and TBL to explain how organisations can create competitive advantage. Carter (2005) utilised RBV to explain the importance of intangible resources such as human capital and knowledge.

However, the ambiguity and all-inclusive nature of the term resources has driven RBV more towards tautology. RBV does not guide organisations to build competitive advantage but provides a basis to build competitive advantage. Common attributes, such as trust, economies of scale, purchasing power, cost leadership, and learning capability might also be considered resources (Barney and Clark, 2007). Therefore, the understanding remains rather fuzzy. Critics argue that RBV does not constitute an organisational theory because the specific characteristics of resources and capabilities are not determined by the organisation but by the market. Scholars highlight that RBV only complements sustainability (Peteraf and Bergen, 2003).

2.7.2 Institutional theory (INT)

Institutional theory (INT) is applied broadly in organisational sustainability studies (e.g. Bansal, 2005; Kauppi, 2013; Glover et al., 2014). INT considers the interplay between business entity and external organisations such as industry associations, non-governmental organisations (NGOs), policymakers and government. Increasingly,

survival and legitimacy depend on conformity to critical institutional rules (Chen et al., 2015). Institutions induce implicit or explicit control on organisations' behaviour (Bruton, Ahlstrom and Li, 2010; Stephan, Uhlaner and Stride, 2015).

INT was initially about how environmental pressures influence the actions of organisations, which was proposed by Hirsch (1975). Meyer and Rowan (1977) formulated the institutional influence on organisational behaviour, stating that 'organisations are driven to incorporate the practices and procedures defined by prevailing rationalised concepts and institutionalised society and organisations that do so influence their legitimacy and their survival prospects' (p. 340). INT as a concept has been extended by several authors (namely DiMaggio and Powell, 1983; Zucker, 1987; Scott, 1987; Selznick, 1996). DiMaggio and Powell (1983) discussed three main isomorphic mechanisms behind organisational behaviour and distinguish between coercive, mimetic and normative processes. These derive from regulatory structures, laws, industry, standards and certifications, and there may be some societal and cultural practices that apply pressures for conformance (DiMaggio and Powell, 1983; 1991). From the research perspective, INT presents a theoretical lens for how institutional pressure influences sustainability practices and the diffusion of SSCM (Moon, Crane and Matten, 2011).

Coercive isomorphism expresses the organisational efforts to meet demands from regulative mechanisms, mainly from those in power (i.e. government) and industrial agreements (Sarkis, Zhu and Lai, 2011). Regulations play a critical role in influencing organisations to engage in sustainability that protect against possible consequences of environmental and social misconduct (Peters, Hofstetter and Hoffmann, 2011). Sustainability is influenced by coercive isomorphism associated with state and international regulatory bodies (Stephan, Uhlaner and Stride, 2015; Sheikh, Kocaoglu and Lutzenhiser, 2016). Conformity often means rigidity and inflexibility, which is challenging in a dynamic environment. Initiatives such as sustainability reporting (Pérez-Batres, Miller and Pisani, 2011; Smith and Lewis, 2011; Jensen and Berg, 2012), third-party ratings (Chatterji and Toffel, 2010), certifiable sustainability standards or certifications (Delmas and Montes-Sancho, 2011; Montiel, Husted and Christmann, 2012), and sustainability innovations (Aguilera-Caracuel and Ortiz-de-Mandojana, 2013) could be measures against possible legal consequences, penalties, protests and sanctions. However, regulatory frameworks are less effective for SMEs, mainly because they mainly focus on LEs (Zhu and Geng, 2013). Although SME-related sustainability regulations are usually less extensive than LEs, buying (or dominant)

firms could exert significant pressure on SMEs to improve sustainability (e.g. code of conduct (CoC), certifications) (Ayuso, Roca and Colomé, 2013).

Mimetic isomorphism occurs when organisations imitate the behaviour and practices of other successful and legitimate organisations, thereby institutionalising such actions (Connelly, Ketchen, and Slater, 2011).

Normative isomorphism is associated with organisational behaviour based on obligatory dimensions of social interaction, professionalism and shared norms (Zhang and Dhaliwal, 2009). Informal institutions are mainly socially constructed and widely transmitted culturally. They are often implicit and evolve slowly over time (Arshed, Carter and Mason, 2014; Stephan, Uhlaner and Stride, 2015). These could be cultural values resulting in shared understandings within a society, expectations, values, beliefs and norms. By contrast, neo-institutional theory enhances the general conception to recognise regulative, normative and cognitive dimensions of institutions. The conception specifies different mechanisms of institutional isomorphism that emphasise these dimensions. The operating principles of normative factors are generally voluntary.

Scholars 'emphasise the global diffusion of sustainability practices and the implementation by global organisations' (Tempel and Walgenbach, 2007, p. 2). However, they pay little attention to how organisations exercise these measures within the supply chains. The literature supports transferring specific management skills from the organisation to subsidiaries (Zaheer, 1995). Unlike local rivals, international subsidiaries are relatively free to respond to cognitive and normative components and have greater autonomy to choose the level of response based on their institutional environment (Kostova, Roth and Dacin, 2008). In general, studies tend to underestimate the effects of transnational developments, while mainly focusing on national institutional frameworks in which organisations are embedded. However, several authors consider INT to understand cross-national difference of sustainability practices (Gjølberg, 2009; Jackson and Apostolakou, 2010; Blasco and Zølner, 2010). Even if businesses worldwide adopt similar models of sustainability and conduct based on institutional characteristics, they are more likely to act responsibly if they operate in an institutional environment with a strong judicial system that recognises wider stakeholders' groups (Amor-Esteban, García-Sánchez and Galindo-Villardón, 2018).

Recent research has employed INT to underpin sustainability. For example, Stål (2015) used INT to develop an analytical framework to clarify the industry-level inertia and change process for sustainability. On the other hand, Glover et al. (2014) employed INT to explore industry-specific supply chains in the UK to identify the role of retailer in developing sustainability practices. In general, while stakeholders associate sustainability with the retailer (or brand), they are only one of the partners in a supplier network. The retailer (or brand) receives significant benefits from implementing SSCM, which could potentially lead to conflicts of interest between supply chains (e.g. first-tier, second-tier etc. suppliers) as most sustainability cost occurs upstream. The research explores the role of each buying firm's approach to SSCM from a stakeholder perspective.

Further, Zhu, Sarkis and Lai (2013) applied INT to develop and empirically test a theoretical model on institutional pressures that encourage Chinese businesses to implement green SCM practices. Roxas and Coetzer (2012) used INT to explore the direct impact of cognitive, regulatory and normative elements on the managerial attitudes of SMEs in the Philippines. Roxas and Coetzer (2012) investigated how SME attitudes influence environmental sustainability. Preuss (2009) revealed that the use of sustainability-inspired sourcing codes is strongly influenced by normative isomorphic pressures. Tate, Ellram and Kirchoff (2010) used INT to evaluate social reporting content, which highlighted that institutional pressure varies across industries and the way reporting is interpreted and translated varies according to the size of the organisation and its geographic location. Unlike RBV, INT describes how institutions impact organisational behaviour and decision-making. Nevertheless, the impact of institutional pressures on SSCM remains largely under explored (Lee et al., 2017).

2.7.3 Stakeholder theory (ST)

Originally, the stakeholder concept was limited in its scope and mainly referred to shareholders and customers. The theory was first developed by Freeman (1984) and defined stakeholders as 'any group or individual who can affect or is affected by the achievement of the organisation objectives' (p. 46). It was later updated to 'those groups who are vital to the survival of the organisation' (Freeman, Wicks and Parmar, 2004, p. 365). Accordingly, stakeholders arise from both the internal and the external environment. Over the years, the concept of stakeholders has been extended and further developed by other researchers, and is now ingrained into the business and

management literature (Mitchell, Agle and Wood, 1997; Frooman, 1999; Freeman, Wicks and Parmar, 2004; Foley, 2005; Garvare and Johansson, 2010; Haddock-Fraser and Tourelle, 2010; Weber and Marley, 2012; Theyel and Hofmann, 2012; Harrison and Wicks, 2013; Park and Ghauri, 2015). Carroll (1989) was one of the first to adopt ST as an explicit framework to analyse business and society topics that help explain and guide the structure and operation of businesses. Scholars Hill and Jones (1992) presented ST as an alternative to corporate social performance framework to integrate the field.

Frooman (1999) identified urgency, legitimacy, and power to influence as attributes to satisfy stakeholders. Foley (2005) highlighted two key features of stakeholders, namely the ability to cause the business to attend to their needs and the ability to act against the business if these needs are not met. Garvare and Johansson (2010) distinguished between stakeholders and other interested parties by recognising stakeholders as having the ability to act if their needs are not met. Therefore, contemporary organisations must seek to satisfy a variety of stakeholders who are capable of inflicting damage on the viability of the organisation if their interests are not adequately met. ST is about the relationships between an organisation and its stakeholders (Freeman et al., 2010). ST emphasises the need to manage stakeholders by taking action to satisfy their needs and expectations as organisations existence (or success) dependent on the organisation's ability to create value for stakeholders.

The organisational literature proposes that ST offers broad definitions that are less operational. ST development is mostly centred on identifying stakeholders and understanding stakeholder relationships. However, the meaning of stakeholder is not applied consistently. ST within the business context requires an understanding of types of stakeholder influences as well as how businesses respond to stakeholder influences. Some stakeholders possess multiple attributes and simultaneously represent multiple stakeholder groups, and businesses face multiple influences from them. Therefore, organisations are expected to simultaneously satisfy multiple stakeholder groups with multiple interdependent relationships. The literature has been categorised according to type of stakeholder influence. For example, Freeman (1984) categorised it into internal and external, while Carroll (1989) categorised it as primary and secondary. They focus on individual stakeholder influence and the dyadic tie between an organisation and each stakeholder. Freeman's (1984) conceptualised ST model views the organisation as at the centre of the stakeholder group, with internal and external influences shaping organisational behaviour; see Figure 2-10.

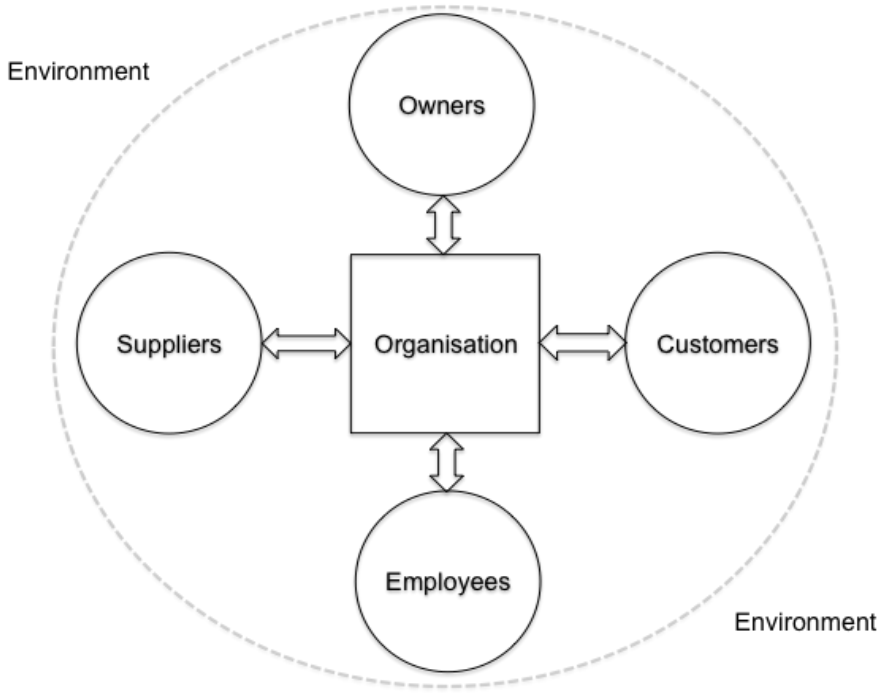

Figure 2-10 Management view based on stakeholder theory
Adopted from Freeman (1984)

Stakeholders can influence organisations to include sustainability-related initiatives (Russo and Perrini, 2010). ST's influence has been frequently cited in the SSCM literature (Schmidt, Foerstl and Schaltenbrand, 2017) and a significant amount of research has investigated stakeholder pressure on the implementation of suppliers' environmental and social practices (e.g. Sarkis et al., 2010; De Gooyert et al., 2017; Castillo et al., 2018).

Employees are one of the main internal stakeholders. They are often the initiators and beneficiaries of organisations' sustainability activities (Saratun, 2016). However, sustainability action will be implemented and supported mostly by the owners or top management. In fact, the organisation's mission (Nevens et al., 2008), values (Pedersen, Gwozdz and Hvass, 2018), attitudes and views (Hodges, 2005), interpretations (Chassé and Courrent, 2018) and leadership (Del Giudice et al., 2018) can influence sustainability practices. The literature suggests that the organisational sustainability paradigm is likely to attract and retain employees and investors with a strong preference for social well-being (e.g. Bonini and Görner, 2011; Guerci et al., 2015). Moreover, external stakeholders can influence organisational practices (e.g. customers, suppliers, community, industry partners, government).

ST emphasises the benefit of recognising stakeholders for the long-term sustainability (Haque and Azmat, 2015; Bosse and Coughlan, 2016). However, most of the research results display a more 'sunny-side' bias. Only a few scholars report the damage caused by adverse relationships with stakeholders (e.g. Harrison and Bosse, 2013; Garcia-Castro and Francoeur, 2016). Powerful stakeholders use coercive pressure to instigate environment and social practices (Ayuso, Roca and Colomé, 2013). For example, footwear giant Sports Direct's stakeholders' decision to boycott and protest minimum wage and inhuman work practices exerted pressure on managers to amend organisational behaviour.

Three approaches to the theory are discussed: the descriptive, instrumental and normative approaches (Boesso, Kumar and Michelon, 2013). The instrumental approach operates on a contractarian vision of the business relationship with stakeholders. It describes the nature of the relationship between the organisation and stakeholders to implement appropriate responses. Scholars argue that managing close relations with stakeholders can lead to the development of capabilities. A 'close relationship capability' helps organisations co-create economic value with stakeholders (Jones, Harrison and Felps, 2018), while a stakeholder relationship based on the norms of an 'arm's-length relationship' could only be compliance with accepted rules and norms, obeying the law, adhering to relevant regulations. However, in a dynamic environment, an arm's-length relationship with formal contracts will quickly become outdated (Joshi and Campbell, 2003). The normative approach focuses on the organisational functions including identification of moral guidelines for organisational management and development of strategies that rely on trust, cooperation and justice. The normative approach of the theory transforms the observations of recommendations for a mere just behaviour.

However, it is argued that these pressures can be counterproductive because they may lead to a merely symbolic adoption (Ciliberti, Baden and Harwood, 2009). Organisations' production processes have the highest negative influence on the environment; for example, the mining, oil and chemical industries are likely to disclose superficial information on environmental performance to increase publicly and public image (Pèrez-Batres, Miller and Pisani, 2011; Lee, Walker and Zeng, 2017).

Recent research has adopted ST to underpin sustainability; for example, Park and Ghauri (2015) used quantitative analysis with an ST underpinning to develop a model

to identify corporate citizenship influencing factors in local SME. Betts, Wiengarten and Tadisina (2015) combined ST with 'contingency theory' to explore how stakeholder demands affect the adoption of environmental practices. Choi and Yu (2014) employ ST to underpin their investigation in Chinese firms relating to the link between stakeholder pressure and organisational social responsibility development. Theyel and Hofmann (2012) used ST to explore how SMEs can influence stakeholder value by adopt sustainability practices. Sen and Cowley (2013) used ST in conjunction with 'social capital theory' lenses to examine the adoption of corporate social responsibility practices within Australian SMEs. Park-Poaps and Rees (2010) investigated stakeholder influence in socially responsible supply chains. The findings revealed that organisational responsibility has a positive relation with consumer, industry and media pressure. Kolk and Pinkse (2007) highlighted that a single theoretical lens cannot adequately capture sustainability owing to its multidimensional nature; therefore, it requires a more integrated approach. Kolk and Pinkse (2007) used a combination of ST, INT and RBV to investigate organisations' responses to sustainability.

The literature findings suggest that, in order to enhance supplier capabilities and increase sustainability-related strategies, organisations need to meet the requirements of their key stakeholders. On the other hand, ST explains how stakeholder sustainability commitment may influence the adoption of supply chain sustainability practices.

2.7.4 Social network theory (SNT)

In general, social-based network theories are quite appropriate to recognise the relational elements of supplier networks (Pilbeam, Alvarez and Wilson, 2012). SNT is recognised as a useful tool to study the influence in supply chains (Ellram, Tate and Carter, 2006; Gmelin and Seuring, 2014). Moreover, SNT is identified as a valuable research approach to advance the fields of logistics and SCM (Sloane and O'reilly, 2013); the literature findings also suggest that there is increased demand for more research to use a social-based lens (Ashby, 2016).

In general, SNT can be expressed as a process by which organisations form a relationship with other organisations, based on mutual interests, tangible and intangible benefits, information, and other beneficial reasons. These network relationships can provide new opportunities to develop competitive advantage (i.e. sustainability development benefits) (Han, Caldwell and Ghadge, 2020). SNT is based on Barne's

(1954) seminal research on social relationships. In a study of a small parish in Norway, Barne (1954) presented an understanding on network ties within a social system. SNT originates primarily from social psychology and is increasingly applied as a tool to assess social structures (Scott, 2011). Later, SNT was adopted as framework for researching business settings and organisational structures with a focus on social relationships (e.g. Ibarra, 1993; Rowley, 1997; Uzzi, 1997; Borgatti and Cross, 2003; Liu and Moskvina, 2016). Granovetter's (1973; 1983; 2012) findings discussed strong and weak network ties; from an organisation perspective it is critical to develop internal and external relationships that provide mutual benefits, including information, knowledge and perspectives. Therefore, establishing relationships with weak and strong ties enables collaborative effort to be developed through internal and external connections (Cote, 2019). Burt's (1992; 2004) findings suggested that relationships may be based on developing trust, supporting others, or being dependent on others for the exchange of information or resources. According to Rowley (1997), 'the primary focus of social network analysis is the interdependence of actors and how their positions in networks influence their opportunities, constraints, and behaviours' (p. 894). Network perspectives build on the perception that organisations or individual actions are influenced by the social context and the position of actors in the social networks in which they are embedded (Cote, 2019). SNT recognises the importance of relationship among the network partners and the organisation's position in the network to control the flow (Sarkis, Zhu and Lai, 2011). Gulati, Nohria and Zaheer (2000) suggested that access to information through different type of network relationships provide organisations with the opportunity to achieve strategic objectives.

SNT emphasises the importance of understanding the relationship type and their strength to provide context for decision-making (Galaskiewicz, 2011). According to Autry and Griffis (2008), intangible relationship strength is well represented through SNT. Network relationships are significant in building trust, which increases information flow and supply chain coordination (Galaskiewicz, 2011). However, embedded trust among supply chains does not guarantee the risk being reduced or the implementation of sustainability in the supply chain. The sharing of sustainability-related information and experience among network partners influence the diffusion of sustainability initiatives but the extent of this undertaking is often disputed (Svensson and Bååth, 2008). In order to maintain supply chain competitive advantage, organisations require developing strategies based on supply chain collaboration (Izzo, 2017). The SNT perspective offers the opportunity to understand buyer–supplier collaborative approaches (Schaltegger et al., 2014). A network relationship based on connectivity

supports high levels of collaboration within the supplier network, whether individuals, communities or organisations (Adenso-Diaz et al., 2012). Supplier network development can be materialised through supplier network integration (Cai, Jun and Yang, 2010), buyer–supplier relationships (Giannakis, Doran and Chen, 2012) and knowledge sharing (Cheng, 2011). Eskandarpour et al. (2015) maintained that 'an organisation is no more sustainable than the suppliers from which it sources' (p. 15).

The success or failure of the diffusion of sustainability depends on inter-organisational decision-making, so SNT is significant in studying the structure of inter-organisational relationships (Carter et al., 2007). The social network perspective is particularly important for identifying and evaluating approaches to sustainability and sustainability diffusion practices as not all practices are successful. Therefore, it is essential to understand the interrelationships that develop interaction across organisational boundaries (Varsei and Polyakovskiy, 2017).

SNT provides the opportunity to analyse the content, identify patterns and relationship connections in networks, arguably answering the how and why questions that feature strongly in the research field (Choi et al., 2008). However, there have been only very few studies that adopt SNT from a SCM context (Sarkis, Zhu and Lai, 2011). The SNT perspective can help verify the importance of collaborative practices in diffusion sustainability and the necessity to carry out sustainability initiatives (Sarkis, Zhu and Lai, 2011).

A key criticism is that SNT is merely descriptive and lacks a theoretical understanding (Borgatti et al., 2009) and it is argued that it is too heterogeneous and descriptive rather than operational (Borgatti and Halgin, 2011). According to Salancik (1995, p. 348) 'network research was powerfully descriptive, but not theoretical'. SNT comes under similar criticism as RBV. The degree to which SNT can be tested and the lack of opportunity to measure or observe its components as interpreting network relationships and ties is more subjective. While they are not purely scientific or positivist in nature, they can recognise subjective elements and are philosophically compatible, addressing 'real-world' philosophies that acknowledge degrees of subjectivity.

Further, according to SNT, networks are viewed as static elements, but the network relationship often changes over time. The literature suggest that insufficient attention is paid to dynamic network processes or the dynamic nature of the network (Watts, 2003). Both claims have considerable validity, particularly when applied to older

network research, but both tend to be overstated as well, particularly today (Borgatti and Halgin, 2011). Scholars suggest that how individuals or organisations are connected is more important than the nature and value of the network relationships (Perry-Smith, 2006).

SMEs tend to rely mainly on trust-based long-term supplier relationships; the SNT theoretical lens offers the opportunity to underpin how the structure and nature of supplier relationships contribute to achieving and diffusing sustainability across a complex, multitier supplier network. Several authors have acknowledged the value of entrepreneurship, which pays attention to human decisions and interactions towards adoption of sustainability in supply chains (Saenz et al., 2015).

2.7.5 Entrepreneurial theory (ERT)

The concept of entrepreneurship is complex in its content; it is influenced not only by economical aspects but also by sociological (e.g. Hegen, Papanek and Harris), psychological (e.g. McClelland, Schumpeter), ethical, religious (e.g. Max Weber) and cultural values (e.g. Cochran). Social scientists have interpreted the phenomenon of entrepreneurship differently in accordance with their perception and economic environment. Scholars Knight (1921), Schumpeter (1934), von Mises (1949) and Kirzner (1973; 1997) have stressed the distinctive psychology of the entrepreneur. According to Knight, entrepreneurs are individuals who deal with risk and uncertainty. Schumpeter illustrated that the effective function of an entrepreneur is to start innovation. Certain psychological elements encourage individuals' creative capacity or nature. Scholars mainly emphasise the role of an entrepreneur. According to von Mises, the entrepreneur is an individual who is capable of anticipating the needs and supplies to satisfy customer needs and make a profit. According to Kirzner, it is about individuals discovering opportunities; entrepreneurship is entrepreneurs recognising and acting on opportunities. The process of discovery perceives the notion that market opportunities (i.e. a product or service) might satisfy present and future demand. Both von Mises and Kirzner emphasised the role of the entrepreneur in driving market forces. Casson (2005) suggested that the entrepreneur is an individual who specialises in making critical decisions about allocating scarce resources to gain a benefit (e.g. profit). The entrepreneur will be a leader, innovator, thinker and motivator. Mishra and Zachary (2014) defined entrepreneurship as a process of value creation and appropriation led by entrepreneurs in an uncertain environment.

However, different authors mainly represent various aspects of entrepreneurship. They have looked at the entrepreneur and entrepreneurship based on their own perception, and therefore provide only a limited view of the entrepreneurial phenomenon. No perception is right or wrong; therefore, for a realistic perspective it needs to be considered together. As discussed, entrepreneurship is influenced by a multitude of factors and the factors that cause the emergence of entrepreneurship are integral.

Despite the importance of entrepreneurs for economic and societal transformation, entrepreneurship literature within sustainability is scarce (Hall Daneke and Lenox, 2010). Entrepreneurship is 'increasingly recognised as a significant conduit for transforming sustainable products and processes' (Hall, Daneke and Lenox, 2010 p. 439). Sustainable entrepreneurship enables environmental and social progress and makes them core business strategy, linking entrepreneurial activities to achieve sustainability goals (O'Neill, Hershauer and Golden, 2009; Schaltegger and Wagner, 2011). Cohen and Winn (2007) explained that market imperfections contribute to unsustainable practices that provide distinctive sustainable entrepreneurial opportunities. York and Venkataraman (2010) proposed a model that embraces entrepreneurship as a solution environmental problem. Raposo, Fernandes and Veiga, (2020) revealed that entrepreneurial activity could preserve the ecosystem, reduce deforestation, and lower air and water pollution. As a result, entrepreneurship could be the solution to numerous environmental and social problems (Youssef, Boubaker and Omri, 2018). However, they do not occur by accident but are formed by organisations' leaders. The reflection of the personal characteristics of the entrepreneur and that entrepreneurial vision shapes organisational outcomes. The ultimate strategic decision echoes the values and preferences of the organisational leadership and their ability to influence sustainability. One of the key elements in sustainable entrepreneurship remains creating unique opportunity. Entrepreneurs turn sustainability conditions into a business opportunity. It is common to capitalise on the opportunity by investing money, time and effort (Greco and De Jong, 2017). By capitalising on sustainability through overall perceptions as a 'good corporate citizen', the entrepreneurial leadership of SMEs drives innovation and creativity, seizing opportunities to create sustainability. Although resources (RBV), regulation (INT), stakeholders (ST) and inter-organisational relationships (SNT) play a role in developing environmental and social practices, entrepreneurship offers an important dimension to review the nature of strategic decision-making in the adoption and diffusion of sustainability (Beske, Land and Seuring, 2014).

The literature findings suggest that SMEs' involvement in SSCM is a sustainable entrepreneurial act. There remains significant ambiguity regarding the nature of entrepreneurship's role in sustainability as mass producers often give low or marginal priority to sustainability (Hockerts and Wüstenhagen, 2010). Moreover, sustainability development remains a long-term strategy and return on investment requires patience. SMEs often view sustainability as too risky with limited rewards. Arguably, sustainability pioneers are often 'niche' market producers that integrate environmental and social sustainability into their core business strategy (Jolink and Niesten, 2015). However, lack of resources and capabilities (Hockerts and Wüstenhagen, 2010) and poor supplier network development (Schaltegger and Wagner, 2011) limit sustainability. Reports suggest that smaller organisations struggle with the diffusion of sustainability and are incapable of altering existing processes to establish SSCM. However, there is empirical evidence that small, niche entrepreneurs developed into mass-market sustainability leaders (e.g. Body Shop). It is not surprising that successful sustainability niche market pioneers have transformed through mission-driven processes. Likewise, mass-market organisations could also create radical transformative sustainability advances (e.g. Toyota).

ERT needs to consider the individual and society within which it is embedded (Swanepoel and Strydom, 2009). Therefore, the dynamics of entrepreneurship need to be understood in diverse economic contexts, as they are characterised by a variety of entrepreneurial development support measures. Further, different cultural values can affect the meaning, role and function of entrepreneurs in society. ERT facilitates the examination of how and to what extent SMEs adopt sustainability in different economies (Baumol, Litan and Schramm, 2009). Therefore, entrepreneurial theory is a suitable analytical tool to deepen existing knowledge of SMEs integrating sustainability.

2.8 Developing the conceptual framework

This section presents the conceptual framework that covers the factors or constructs to be studied. The conceptual framework provides an interpretative approach for reality. The framework is designed from the sustainability drivers and enablers derived from the organisational theories discussed in the previous chapter and the organisational factors that influence supplier sustainability activities identified in the literature review, namely supplier selection, supplier performance assessment and supplier development.

2.8.1 Sustainability in supply chain drivers and enablers

Based on the literature review and the five organisational theoretical lenses, this research recognises key drivers and enablers that influence the sustainability in supply chains.

It is important to establish that organisations' resources are essential to build competitiveness at organisational and supply chain levels. RBV highlighted that efficient and effective use of resources and capabilities, as well as the implementation of sustainability practices in the supply chain network, may enhance competitive advantage. On the other hand, institutional demands can influence organisations and supply chain networks to implement environmental and social sustainability practices. In general, this pressure comes from state or local government regulations, industry regulations, monitoring organisations (e.g. media, pressure groups, NGOs), trade and employer associations and business alliances. Based on the INT interpretation, these demands can influence the spread of sustainability within and between supply chain partners. Based on the ST interpretation, stakeholder demands and expectations form a significant basis for influencing sustainability and the diffusion of sustainability in the supply chain. Organisations are compelled to satisfy their primary stakeholder expectations and demand to maintain their success and existence. SNT posits that the supply chain is a significant part of the social network. An organisation's success depends on the ability to systematically integrate organisations' network processes and collaboration with network partners. Trust, effective information exchange, knowledge sharing, and enhancing mutual benefit between supplier network can increase the implementation of sustainability practices. Entrepreneurial vision shapes organisational outcomes. ERT interpretations suggest that organisations' environmental and social sustainability are stimulated through the leadership, personal values and beliefs of the entrepreneur. It is viewed that sustainability business models are formed by entrepreneurial leaders and they shape organisations business strategy to enhance SSCM.

2.8.2 Sustainability in supply chain based on supplier selection

Generally, buying organisations communicate sustainability requirements to suppliers (e.g. product quality, facility, workers); this may not influence the implementation of sustainability practices but provides buying organisations with expectation and awareness. Buying organisations often use different tools to communicate supplier selection requirements (e.g. statement of expectations, sustainability policy, code,

guidelines) (Schleper and Busse, 2013). The supplier selection criteria provide the basis for selecting the supplier base. A well-developed sustainability specification can influence suppliers to implement sustainability initiatives (Simpson and Power, 2005).

Supplier evaluation has been widely used to evaluate the implementation of the expected supplier sustainability practices (e.g. Ayuso, Roca and Colomé, 2013; Besk, Land and Seuring, 2014). This provides the opportunity to identify how suppliers address sustainability issues (i.e. compliance). In addition, supplier evaluations facilitate supplier performance improvement and develop joint learning opportunities. If the buying organisation adopts supplier evaluation systems, it is evidence of the diffusion of sustainability practices.

The involvement of the owner (or top management) in inter-organisational integration with suppliers to design and implementing of policies for sustainability practices is important (Blome, Foerstl and Schleper, 2017). Indeed, the owner (or top management) is also directly involved with supplier selection decision-making. Resources and capabilities of both the buying and supplier organisations are important in their ability to implement and diffuse sustainability practices (Ahi and Searcy, 2015). Other external stakeholders, such as NGOs, government, third-party organisations, and industry associations that are involved in designing supplier selection or supplier evaluation, validate the legitimacy of the sustainability practices.

Usually, buying organisations only request sustainability requirements from their first-tier suppliers and expect the first-tier supplier to communicate with the lower-tier (e.g. second-tier, third-tier, n-tier) suppliers (e.g. Elg and Hultman, 2011). However, communication expectations alone do not guarantee the diffusion of sustainability practices within lower-tier suppliers. Tachizawa and Wong (2014) suggest indirect approaches such as sustainability diffusion through the delegation of responsibility based on multitier supplier management. There is also the direct approach, where the buying organisations establish direct contact with lower-tier suppliers (e.g. establishing requirements). Therefore, the scope for the implementation of the sustainability requirements within the supply chain is also critical for diffusion of sustainability practices.

Business volume is also a significant factor for supplier engagement in sustainability practices (Grimm, Hofstetter and Sarkis, 2014). Compliance with sustainability requirements demands significant effort and investment by suppliers. Therefore, the

volume of business influences the supplier sustainability implementation. According to Morali and Searcy (2013), buyer–supplier contracts encourage suppliers to be more responsible; they provide clear structure, roles and conditions for suppliers. Therefore, the use of contracts may influence sustainability implementation (e.g. Jira and Toffel, 2013). Table 2-13 presents the key organisational factors that contribute to supplier selection discussed in the literature.

Organisational Factors	**Literature Sources**
Sustainability policy and strategy	Min and Galle, 2001; Simpson and Power, 2005; Zhu, Sarkis and Lai, 2007; Ciliberti, Pontrandolfo and Scozzi, 2008; Gold, Seuring and Beske, 2010b; Tate, Ellram and Dooley, 2012; Wittstruck and Teuteberg, 2012; Igarashi, de Boer and Fet, 2013; Schleper and Busse, 2013; Busse, Kach and Bode, 2016; Hofmann, Schleper and Blome, 2018
Clear definition of sustainability	Rock, Lim and Angel, 2006; Zhu, Sarkis and Lai, 2007; Koplin, Seuring and Mesterharm, 2007; Nawrocka, Brorson and Lindhqvist, 2009; Morali and Searcy, 2013; Paulraj, Chen and Blome, 2017; Esfahbodi et al., 2017; Alikhani, Torabi and Altay, 2019
Clear communication of sustainability	Rock, Lim and Angel, 2006; Srivastava, 2007; Cramer, 2008; Ciliberti, Pontrandolfo and Scozzi, 2008; Sharfman, Shaft and Anex, 2009; Marimon, Llach and Bernardo, 2011; Sarkis, 2012; Klassen and Vereecke, 2012; Tachizawa, Thomsen and Montes-Sancho, 2012; Zhu, Sarkis and Lai, 2012; Ayuso, Roca and Colomé, 2013; Morali and Searcy, 2013; Schleper and Busse, 2013; Caniëls, Gehrsitz and Semeijn, 2013; Igarashi, de Boer and Fet, 2013; Grimm, Hofstetter and Sarkis, 2014; Tachizawa and Wong, 2014; Wilhelm et al., 2016; Yawar and Seuring, 2017

Organisational Factors	Literature Sources
Support of owners (or top and middle management) and other external stakeholders	Handfield, Sroufe and Walton, 2005; Zhu, Sarkis and Lai, 2007; Nawrocka, Brorson and Lindhqvist, 2009; Gold, Seuring and Beske, 2010a; Carbone, Moatti and Wood, 2012; Morali and Searcy, 2013; Schleper and Busse, 2013; Govindan et al., 2014; Blome, Hollos and Paulraj, 2014; Blome, Foerstl and Schleper, 2017
Industry guidelines and initiatives	Ashby, Leat and Hudson-Smith, 2012; Klassen and Vereecke, 2012; Ahi and Searcy, 2015; Ashby, Smith and Shand, 2017
Evaluation of suppliers	Zsidisin and Siferd, 2001; Koplin, Seuring and Mesterharm, 2007; Ciliberti, Pontrandolfo and Scozzi, 2008; Zhu, Sarkis and Lai, 2008; Nawrocka, Brorson and Lindhqvist, 2009; Pagell and Wu, 2009; Gold, Seuring and Beske, 2010a; 2010b; Elg and Hultman, 2011; Paulraj, 2011; Kogg and Mont, 2012; Hollos, Blome and Foerstl, 2012; Tachizawa, Thomsen and Montes-Sancho, 2012; Ayuso, Roca and Colomé, 2013; Morali and Searcy, 2013; Caniëls, Gehrsitz and Semeijn, 2013; Schleper and Busse, 2013; Beske, Land and Seuring, 2014; Govindan et al., 2016; Saenz et al., 2015; Gruchmann et al., 2019
Buying firm and supplier capabilities	Gold, Seuring and Beske, 2010b; Paulraj, 2011; Hoejmose and Adrien-Kirby, 2012; Wittstruck and Teuteberg, 2012; Ahi and Searcy, 2015; Gualandris and Kalchschmidt, 2015; Amui et al., 2017; Awan, Kraslawski and Huiskonen, 2018
Volume of purchases and scope of buyer sustainability	Bai and Sarkis, 2010; Elg and Hultman, 2011; Tachizawa and Wong, 2014; Grimm, Hofstetter and Sarkis, 2014; Memon, Lee and Mari, 2015; Wilhelm et al., 2016

Organisational Factors	Literature Sources
Contractual agreement	Elg and Hultman, 2011; Klassen and Vereecke, 2012; Sarkis, 2012; Pilbeam, Alvarez and Wilson, 2012; Ayuso, Roca and Colomé, 2013; Jira and Toffel, 2013; Leppelt et al., 2013; Morali and Searcy, 2013; Shen et al., 2017; Yawar and Seuring, 2017; Salmerón-Manzano and Manzano-Agugliaro, 2019

Table 2-13 Organisational factors for supplier selection

2.8.3 Sustainability in supply chain based on supplier sustainability assessment

Supplier sustainability assessment provides key information to better understand the environmental and social impact of their suppliers. The assessments help decision makers evaluate the best action (Gimenez and Tachizawa, 2012) and change or correct sustainability strategies (Green et al., 2012).

The most challenging aspect is to identify the purpose of the assessment (e.g. life cycle perspective, monitoring compliance, working conditions, enhancing supplier performance). There is a wide selection of performance assessment mechanisms, ranging from self-assessment initiatives to independent third-party mechanisms (Dou, Zhu and Sarkis, 2014; Ağan et al., 2016). The financial burden on the buying organisations depends on the selected sustainability assessment mechanism. Therefore, the purpose, availability of finance, and buying organisations' sustainability strategy impact the implementation of supplier assessment.

Buying organisations' environmental and social awareness has a direct effect on the diffusion of supplier sustainability. Awareness of the upstream supplier operations' sustainability issues and industry awareness is critical in developing supplier sustainability. In addition, the expertise in implementing and maintaining related certifications, standards, management systems (e.g. ISO 14001, SA8000) and measurement systems (e.g. GRI, BSC) help sustain consistent assessment methods (e.g. Beske-Janssen, Johnson and Schaltegger, 2015). The literature posits that performance measures have to be reliable, comparable, valid, consistent, and applicable across geographical setting (Shaw, Grant and Mangan, 2010).

Owners (or top management) and external stakeholders (e.g. pressure groups, government, NGOs) play an essential role by defining assessment purpose, measures and resources (e.g. Schaltegger et al., 2014).

Networking facilitates information sharing and communication, which may help align supplier performance improvements and supplier sustainability development (e.g. Tachizawa and Wong, 2014). Clear understanding of risk, costs and benefits, as well as uncertainties, may influence the implementation of supplier assessment (e.g. Jira and Toffel, 2013). Development in stakeholder relationship is also as an influential factor aligning supplier performance assessment. The literature also includes trust (e.g. Hassini, Surti and Searcy, 2012), long-term relationship (e.g. Danese, Lion and Vinelli, 2019) and sharing responsibility (e.g. Ahi and Searcy, 2015) as factors that influence sustainability based on supplier assessment.

The literature suggests the requirements to establish a process to get feedback and analyse supplier non-compliance (e.g. regulations and selected requirements). Porteous, Rammohan and Lee (2015) suggested that the inclusion of treatment related to non-compliance (e.g. non-compliance tolerance reaction such as termination or reduced business) might minimise the amount of non-compliance and improve performance. Shaw, Grant and Mangan (2010) and Schaltegger et al (2014) argued that supplier performance benchmarking and defining goals (or targets) help buying firms to improve cross-supplier sustainability implementation. Table 2-14 presents the organisational factors contributing to supplier assessment discussed in the literature.

Organisational Factors	**Literature Sources**
Definition and purpose of supplier performance assessment	Nawrocka, Brorson and Lindhqvist, 2009; Gold, Seuring and Beske, 2010a; Goyal, Rahman and Kazmi, 2013; Dües, Tan and Lim, 2013; Wicher, Zapletal and Lenort, 2019
Identifying key suppliers for assessment	Handfield, Sroufe and Walton, 2005; Seuring and Müller, 2008; Foerstl et al., 2010; Klassen and Vereecke, 2012; Dües, Tan and Lim, 2013; Schöggl, Fritz and Baumgartner, 2016

Organisational Factors	Literature Sources
Defining of performance assessment tool	Handfield, Sroufe and Walton, 2005; Simpson and Power, 2005; Srivastava, 2007; Hutchins and Sutherland, 2008; Shaw, Grant and Mangan, 2010; Gimenez and Tachizawa, 2012; Klassen and Vereecke, 2012; Beske-Janssen, Johnson and Schaltegger, 2015; Awasthi, Govindan and Gold, 2018
Identifying sustainability requirements	Koplin, Seuring and Mesterharm, 2007; Ashby, Leat and Hudson-Smith, 2012; Hoejmose and Adrien-Kirby, 2012; Wilding et al., 2012b; Leppelt et al., 2013; Gold and Awasthi, 2015; Grimm, Hofstetter and Sarkis, 2016; Tavana, Yazdani and Di Caprio, 2017
Management and performance measurement system	Klassen and Vachon, 2003; Seuring and Müller, 2008; Nawrocka, Brorson and Lindhqvist, 2009; Shaw, Grant and Mangan, 2010; Gold, Seuring and Beske, 2010a; Green et al., 2012; Klassen and Vereecke, 2012; Morali and Searcy, 2013; Dou, Zhu and Sarkis, 2014; Schaltegger et al., 2014; Varsei et al., 2014; Ahi and Searcy, 2015; Beske-Janssen, Johnson and Schaltegger, 2015; Marshall et al., 2015b; Wong, Wong and Boon-itt, 2015; Sancha, Longoni and Giménez, 2015; Touboulic and Walker, 2015; Ağan et al., 2016
Impact from organisational sustainability policy and strategy	Shaw, Grant and Mangan, 2010; Ashby, Leat and Hudson-Smith, 2012; Gimenez, Sierra and Rodon, 2012; Beske, Land and Seuring, 2014; Tachizawa and Wong, 2014
Support from owners (or top and middle management), external stakeholders and functional integration	Hervani, Helms and Sarkis, 2005; Lee and Klassen, 2008; Shaw, Grant and Mangan, 2010; Kogg and Mont, 2012; Tong, Shi and Zhou, 2012; Wilding et al., 2012b; Ayuso, Roca and Colomé, 2013; Tachizawa and Wong, 2014; Beske-Janssen, Johnson and Schaltegger, 2015; Hannibal and Kauppi, 2019
Sustainability codes, policies and guidelines	Ciliberti, Pontrandolfo and Scozzi, 2008; Ashby, Leat and Hudson-Smith, 2012; Beske, Land and Seuring, 2014; Varsei et al., 2014

Organisational Factors	Literature Sources
Feedback and analysis	Krause and Scannell, 2002; Klassen and Vachon, 2003; Hervani, Helms and Sarkis, 2005; Handfield, Sroufe and Walton, 2005; Seuring and Müller, 2008; Shaw, Grant and Mangan, 2010; Gold, Seuring and Beske, 2010b; Green et al., 2012; Ashby, Leat and Hudson-Smith, 2012; Morali and Searcy, 2013; Dou, Zhu and Sarkis, 2014; Schaltegger et al., 2014; Marshall et al., 2015a; Porteous, Rammohan and Lee, 2015; Beske-Janssen, Johnson and Schaltegger, 2015; Touboulic and Walker, 2015; Ağan et al., 2016; Simić et al., 2017
Communication, reward and risk sharing	Simpson and Power, 2005; Handfield, Sroufe and Walton, 2005; Seuring and Müller, 2008; Pagell and Wu, 2009; Gold, Seuring and Beske, 2010b; Paulraj, 2011; Ashby, Leat and Hudson-Smith, 2012; Hassini, Surti and Searcy, 2012; Gimenez and Tachizawa, 2012; Pilbeam, Alvarez and Wilson, 2012; Klassen and Vereecke, 2012; Gimenez and Tachizawa, 2012; Jira and Toffel, 2013; Meacham et al., 2013; Tachizawa and Wong, 2014; Varsei et al., 2014; Beske, Land and Seuring, 2014; Wong, Wong and Boon-itt, 2015; Beske-Janssen, Johnson and Schaltegger, 2015; Ghadge et al., 2017; Fritz, Schöggl and Baumgartner, 2017; Kauppi and Hannibal, 2017
Supply chain network relationship	Hervani, Helms and Sarkis, 2005; Simpson and Power, 2005; Gold, Seuring and Beske, 2010b; Hassini, Surti and Searcy, 2012; Gimenez, Sierra and Rodon, 2012; Beske, Land and Seuring, 2014; Ağan et al., 2016; Sancha el al., 2015; Shafiq et al., 2017; Danese, Lion and Vinelli, 2019

Organisational Factors	Literature Sources
Supply chain network collaboration	Simpson and Power, 2005; Seuring and Müller, 2008; Vachon and Klassen, 2008; Gold, Seuring and Beske, 2010a; 2010b; Green et al., 2012; Ashby, Leat and Hudson-Smith, 2012; Wilding et al., 2012b; Schaltegger et al., 2014; Walker et al., 2014; Dou, Zhu and Sarkis, 2014; Touboulic and Walker, 2015; Ahi and Searcy, 2015; Beske-Janssen, Johnson and Schaltegger, 2015; Marshall et al., 2015a; Wong, Wong and Boon-itt, 2015; Ağan et al., 2016; Danese, Lion and Vinelli, 2019
Buying organisation and supplier capability	Handfield, Sroufe and Walton, 2005; Rock, Lim and Angel, 2006; Hutchins and Sutherland, 2008; Shaw, Grant and Mangan, 2010; Kogg and Mont, 2012; Hassini, Surti and Searcy, 2012; Touboulic and Walker, 2015; Porteous, Rammohan and Lee, 2015; Amui et al., 2017; Khan et al., 2018

Table 2-14 Organisational factors for supplier assessment

2.8.4 Sustainability in supply chain based on supplier development

Supplier performance assessments usually serve as the baseline for supplier development (Noshad and Awasthi, 2015). Supplier development is linked to supplier selection as capable buying organisations support suppliers through expertise, capabilities, knowledge and guidelines to meet compliance requirements on organisations' supplier sustainability requirements (e.g. Trapp and Sarkis, 2016; Ağan et al., 2016). As such, influencing factors identified in supplier selection and supplier performance assessment were also found influencing supplier development, for example owner (or management), internal capabilities, communication between buyer and suppliers, relationship, supplier capability and support of supplier top managers.

Engaging in supplier sustainability development is more challenging for buying organisations. Developing a clear supplier development purpose, defining initiatives, and prioritising resources impact buying organisations (Bai and Sarkis, 2010). Supplier development requires huge commitment of resource and organisations' capacity to allocate such resources is a significant factor in developing a platform for supplier development (e.g. Wong, Wong and Boon-itt, 2015). In general, buying organisations

need to consider their overall sustainability policy and strategies, supplier sustainability expectations and defined criteria for supplier performance assessment.

The literature findings suggest that buying organisations' relationship with key suppliers help to develop close, long-lasting and strategic partnerships that permit collaboration, information, knowledge and resources exchange (e.g. Beske, Land and Seuring, 2014; Noshad and Awasthi, 2015; Ağan et al., 2016).

Owners (or top and middle management) initiate the adoption of supplier development programmes. Similarly, employee involvement is essential for the supplier development implementation (e.g. Sancha, Longoni and Giménez, 2015; Touboulic and Walker, 2015). Commitment from supplier owner (or top management) and employees are important for developing sustainability initiatives.

Collaborative approaches were also reported to influence sustainability through supplier development initiatives (e.g. Sarkis, Zhu and Lai, 2011; Ashby, Leat and Hudson-Smith, 2012). Adoption of knowledge management, partner development, supply chain reconceptualisation, co-evolving, and reflexive control facilitate growth in supplier development.

The literature suggests auditing to examine the effectiveness of the implemented initiatives and developing an action plan to treat non-compliance to accomplish planned development (e.g. Ağan et al., 2016). This could be self-auditing, second-party auditing or third-party auditing. Therefore, the assessment of supply chain sustainability is significant for diffusion of sustainability practices.

Organisational Factors	**Literature Sources**
Supplier development purpose	Bai and Sarkis, 2010; Dou, Zhu and Sarkis, 2014; Busse et al., 2016; Liu et al., 2018
Defining supplier development and identifying key suppliers	Bai and Sarkis, 2010; Blome, Hollos and Paulraj, 2014; Noshad and Awasthi, 2015; Sancha, Longoni and Giménez, 2015; Ağan et al., 2016; Trapp and Sarkis, 2016; Rashidi and Saen, 2018

Organisational Factors	Literature Sources
Supplier performance assessment	Pagell and Wu, 2009; Bai and Sarkis, 2010; Gold, Seuring and Beske, 2010b; Tate, Ellram and Dooley, 2012; Caniëls, Gehrsitz and Semeijn, 2013; Blome, Hollos and Paulraj, 2014; Dou, Zhu and Sarkis, 2014; Noshad and Awasthi, 2015; Sancha, Longoni and Giménez, 2015; Trapp and Sarkis, 2016; Ağan et al., 2016; Zhang, Pawar and Bhardwaj, 2017; Yawar and Seuring, 2017
Overall sustainability strategy and policies	Beske, Land and Seuring, 2014; Dou, Zhu and Sarkis, 2014; Noshad and Awasthi, 2015; Trapp and Sarkis, 2016; Liu et al., 2018
Support from owners (or top and middle management), external stakeholders and functional integration	Pagell and Wu, 2009; Bai and Sarkis, 2010; Gimenez and Tachizawa, 2012; Tachizawa, Thomsen and Montes-Sancho, 2012; Ehrgott et al., 2013; Govindan et al., 2014; Beske, Land and Seuring, 2014; Trapp and Sarkis, 2016; Cole and Aitken, 2019
Internal sustainability practice and sustainability requirement	Vachon and Klassen, 2008; Nawrocka, Brorson and Lindhqvist, 2009; Holt and Ghobadian, 2009; Pagell and Wu, 2009; Ashby, Leat and Hudson-Smith, 2012; Zhu, Sarkis and Lai, 2012; Caniëls Gehrsitz and Semeijn, 2013; Beske, Land and Seuring, 2014; Blome Paulraj and Schuetz, 2014; Dou, Zhu and Sarkis, 2014a; Noshad and Awasthi, 2015; Sancha, Longoni and Giménez, 2015; Trapp and Sarkis, 2016; Ağan et al., 2016

Organisational Factors	Literature Sources
Collaborative approach	Klassen and Vachon, 2003; Simpson and Power, 2005; Handfield Sroufe and Walton, 2005; Zhu, Sarkis and Lai, 2008; Pagell and Wu, 2009; Sharfman, Shaft and Anex Jr, 2009; Holt and Ghobadian, 2009; Nawrocka, Brorson and Lindhqvist, 2009; Pagell and Wu, 2009; Bai and Sarkis, 2010; Gimenez and Tachizawa, 2012; Sarkis, 2012; Hollos, Blome and Foerstl, 2012; Brockhaus, Kersten and Knemeyer, 2013; Beske, Land and Seuring, 2014; Noshad and Awasthi, 2015; Touboulic and Walker, 2015; Sancha, Longoni and Giménez, 2015; Wong, Wong and Boon-itt, 2015; Ağan et al., 2016
Internal and supplier capacity	Simpson and Power, 2005; Pagell and Wu, 2009; Bai and Sarkis, 2010; Gimenez and Tachizawa, 2012; Zhu, Sarkis and Lai, 2012; Gimenez and Tachizawa, 2012; Caniëls, Gehrsitz and Semeijn, 2013; Ehrgott et al., 2013; Blome, Hollos and Paulraj, 2014; Noshad and Awasthi, 2015; Sancha, Longoni and Giménez, 2015; Touboulic and Walker, 2015
Communication	Simpson and Power, 2005; Vachon and Klassen, 2006; Pagell and Wu, 2009; Sarkis, 2012; Tate, Ellram and Dooley, 2012; Noshad and Awasthi, 2015; Sancha, Longoni and Giménez, 2015; Shahzad et al., 2016; Prahinski, Benton and Fan, 2020
Supplier network relationship	Simpson and Power, 2005; Pagell and Wu, 2009; Sharfman, Shaft and Anex, 2009; Bai and Sarkis, 2010; Tate, Ellram and Dooley, 2012; Gimenez and Tachizawa, 2012; Brockhaus, Kersten and Knemeyer, 2013; Beske, Land and Seuring, 2014; Dou, Zhu and Sarkis, 2014; Noshad and Awasthi, 2015; Sancha, Longoni and Giménez, 2015; Touboulic and Walker, 2015; Shahzad et al., 2016; Busse et al., 2016; Ağan et al., 2016; Salimian, Rashidirad and Soltani, 2017

Table 2-15 Organisational factors for supplier development

2.9 Conceptual framework for sustainability in supply chain

The proposed conceptual framework links the sustainability drivers and enablers with the management activities critical for diffusing sustainability practices by examining the influencing and verifying factors identified through the literature review.

Figure 2-11 presents the visual depiction of the proposed conceptual framework, which is grounded on the theoretical base of RBV, INT, ST, SNT and ERT. The combination of these theoretical lenses creates sustainability drivers and enablers to exert influence and verify the implemented TBL performance. Ultimately, organisations may establish transparency through supplier sustainability performance.

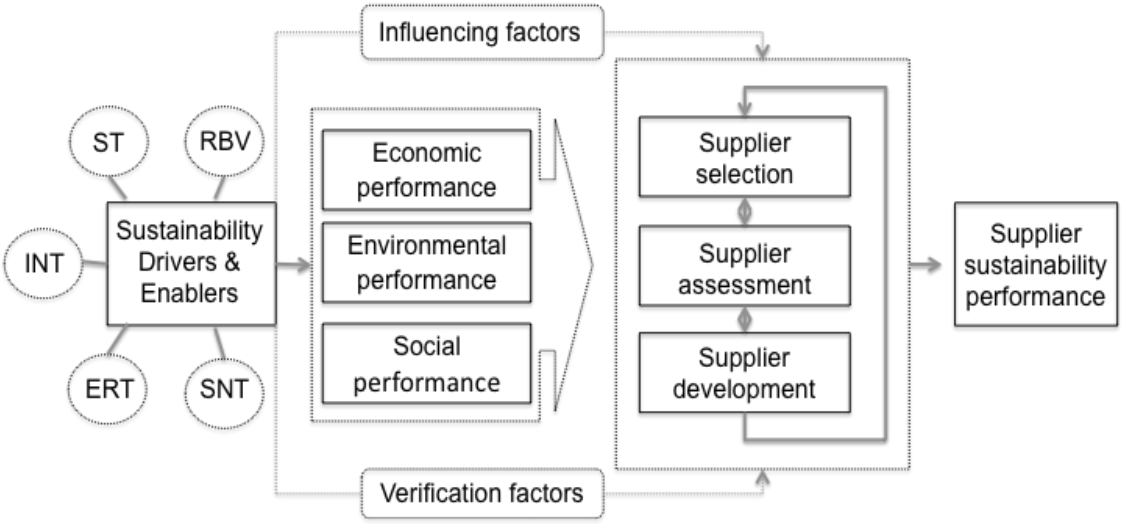

Figure 2-11 Conceptual framework

2.10 Summary of the chapter

This chapter presented the literature review, which provided an insight into the subject area that is being studied in this research, namely sustainability, SSCM and SME, highlighting their potential to influence sustainability diffusion in supply chain from an SME context. The chapter built the foundation for the conceptual sustainability rating and supply chain sustainability rating model, which is an easy-to-evaluate, user-friendly decision-making tool. The model evaluates both an organisation's sustainability performance and the supply chain sustainability performance. The proposed measure uses key sustainability measurement criteria derived from the literature analysis, discussed as subject and sub-subjects. These are grouped under economic (i.e. financial, reliability, reactivity, flexibility, quality), environmental (i.e. environmental,

resources, pollution, hazards, natural) and social criteria (i.e. labour relations, labour rights, community, consumers, business practice).

This chapter revealed the literature findings related to practices adopted to diffuse sustainability across the supply chain and organisational factors influencing the diffusion of sustainability practices. The proposed conceptual framework links theoretical management lenses to identify the sustainability drivers and enablers for SCM. The drivers and enablers impact the TBL (economic, environment and social performance), which develops SSCM through influencing factors, namely supplier selection, performance assessment, and development. The integration of these activities is required to systematically diffuse environmental and social sustainability practices across the supplier base.

The literature review helped identify sustainability influencing and verification factors. The conceptual framework extends previous researches (e.g. Beske, Land and Seuring, 2014) by investigating sustainability diffusion through supplier selection, performance assessment, and development influencing factors.

CHAPTER 3

3 Research Methodology

3.1 Introduction

This chapter presents the choice and justification of adopted research design and the empirical design. In general, this involves the selection of the philosophical position, a methodology choice, and suitable research method to collect and analyse data. According to Creswell and Creswell (2017), 'different types of research problems require different solutions in terms of research approach and choice of method. However, one does not begin by choosing a method, but methods can be sufficiently flexible to grow naturally from the research question' (p. 64).

3.2 Research stance

The research paradigm is a set of assumptions concerning the ontology, epistemology, and methodological choice (Guba and Lincoln, 1994). Each research project is based on a particular vision ontology, epistemology and methodology to produce results that can provide knowledge and help understand or explain the reality. In doing so, this research wishes to clarify the research goals, motivations and expectations, while exposing the possibilities and limitations associated with the chosen paradigm (Dépelteau, 2018). According to Hofweber (2009), the first approximation, ontology, is the study of what there is, the study of the most general features of what there is, views on the nature of reality and how they are related to each other in the metaphysically most general ways. Therefore, the ontology of a research project deals with 'the researchers' view of the nature of reality' (Saunders, Lewis and Thornhill, 2009, p. 110). According to Crowther and Lancaster (2008, p. 23), the 'social world is continuously shaped, framed and affected by personal values, knowledge and experiences and the existence of a social world that has at least as much influence over the "real" physical world'. Moreover, there is a physical world that exists independently of researcher interpretations. Bryman and Bell (2007) viewed ontological position as objectivism and constructionism. Epistemology refers to the views about the ways of enquiring into the nature of the world (Easterby-Smith, Thorpe and Jackson, 2012).

3.2.1 Epistemological stance

To undertake the research work, the researcher must make an epistemological and methodological choice that determines the approach to the research process. In economic, social sciences and organisational study, scholars consider epistemological paradigms to be positivist or interpretivist (Bryman and Bell, 2007).

The positivist paradigm shapes the empiricist philosophy and examines what causes determine effects (Creswell, 2009). The aim is to observe directly, measure quantitatively, and objectively predict the relationship between variables. Therefore, the positivist paradigm is objective. The positivism paradigm also 'strives to test a theory (or describe) an experience through observation and measurement to predict and control the forces that surround the problem' (O'Leary, 2017, p. 5). The positivism paradigm asserts the knowledge that builds science, which is the knowledge of reality that remains a reality, observed independently, and the researcher remains detached from the situation they observe.

By contrast, interpretivist research understands 'the world of human experience' (Cohen and Manion, 1994, p. 36). Positivists prefer quantitative scientific methods, while interpretivists or anti-positivists favour humanistic qualitative methods. Interpretivist research relies on the 'participants' views of the situation being studied' (Creswell, 2013a, p. 8) and recognises the impact on the research of their own background and experiences. According to Creswell (2013a, p. 9), interpretivist studies 'inductively develop a theory or pattern of meanings throughout the research process'. Therefore, it is important to acknowledge that everyone will experience and understand the same objective reality differently, and often very differently to one other. Thanh and Thanh (2015, p. 25) suggested that 'individuals are not just puppets but are intricate and complex'. Therefore, the interpretive paradigm allows the researcher to view the world through the perceptions and experiences of the participants (Thanh and Thanh, 2015). The interpretivist paradigm includes 'accepting and seeking multiple perspectives, being open to change, practising iterative and supports emergent data collection techniques, promoting participatory and holistic research, and going beyond the inductive and deductive approach' (Willis, Jost and Nilakanta, 2007, p. 583). Interpretivism also allows the researcher to acknowledge their role within the research process and adopt an empathetic stance while acknowledging the effects these may have. Therefore, the researcher believes that the positivistic scientific method is inappropriate for the research.

This research adopts the constructionist ontological position and the interpretivist epistemological position. Overall, the nature of this research is to understand the real-world phenomenon of Scottish fashion SMEs' engagement in sustainability, and the practices adopted by the buying organisations to diffuse sustainability practices across the supply chain. Easterby-Smith, Thorpe and Jackson (2012) highlighted that the interpretivist position generally increases the understanding of a situation by gathering rich data from which ideas are induced. The paradigm also brings the indispensable confrontation of assumptions to reality, which not only strengthens the model but also makes progress towards a new context. The objectivist view may be too simplistic if the aim is to research 'the details of the situation to understand the reality or perhaps the reality working behind' (Remenyi et al., 1998, p. 35). Consequently, the management, development and governance of supplier networks require a subjective (or constructivist) understanding. Therefore, the interpretivist epistemological position is the most suited for philosophical assumptions and fit this research.

3.2.2 Research process

Saunders, Lewis and Thornhill (2007) suggested that there are no rigid rules to the research process, although they advised using a mix of methods. The research process for this research comprises the following stages: (i) formulation and clarification of the research topic, (ii) identification of areas where more research is needed, (iii) identification of the research question, (iv) selection of the most suitable approach, (v) collection of data and (vi) data analysis.

3.3 Research methodology

This research adopts a subjectivist paradigm, employing a multi-stage, current, process-focused methodology. The goal is to understand, describe and theoretically interpret the actual approaches of Scottish fashion SMEs and their supply chains in the natural (real) setting. Therefore, the qualitative methodology is considered the most appropriate as it provides the opportunity gain a holistic overview of the current practices in SMEs. According to Yin (2009), qualitative research can process new phenomena that have been poorly understood. It is also useful in situations where the subject is under-researched or there is no research. It is important to highlight that very little sustainability research has been done that relates to the SME supply chain in Scotland.

Qualitative studies can combine elements of both deductive and inductive approaches. The inductive approach was adopted for this research to understand and explain the complex situation within an organisation because the subject matter is a relatively new contemporary experience with no single appropriate theory (Creswell and Creswell, 2017). Initially, the researcher adopted an inductive approach for the data collection and analysis, building from particulars to general themes, and the researcher making interpretations of the meaning of the data and deductive thinking also played an important role as the analysis progressed. The qualitative data were gathered through interviews, which were flexible rather than fixed. The flexible design gives evidence for an inductive approach rather than a deductive approach. The deductive approach generally follows a strict sequence (Robson and McCartan, 2016). Further, the inductive approach is less concerned with the need to generalise and more with developing an understanding of the phenomena. Hence, the research supports an inductive approach for the initial stage of the research. However, the researcher adopts a deductive approach for the cross-case analysis; as discussed later in this chapter, cross-case analysis uses the conceptual framework consisting of multiple theoretical contexts.

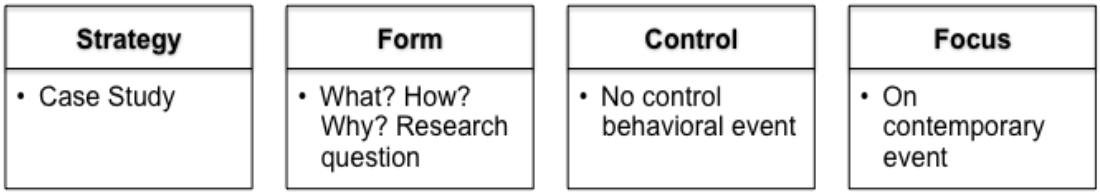

Figure 3-1 Research method
Adapted from Yin (2003)

The research design employs an exploratory approach to provide specific knowledge (Eisenhardt, 1989; Stake, 1995) developing from a philosophy of social constructivism. The questions ‘what’, ‘how’ and ‘why’ remain explanatory and the expectation of the approach is to identify and understand the process or processes within a phenomenon. According to Yin (2009), the types of research questions will determine the research methods. The research questions associated with questions that begin with ‘what’ generally validate the use of a qualitative research design. Exploratory research is a valuable way to discover what is happening and seek new insights. Primarily, the expectation is to understand the practice and find new insights, instead of trying to measure or test any predefined outcomes. See Table 3-1’s comparison of quantitative and qualitative research methods (Creswell and Poth, 2016).

Factors	Quantitative	Qualitative
General framework	Seek to conform hypotheses about a phenomenon. Instruments use are more rigid style of eliciting and categorising responses. Use highly structured methods such as questionnaires, surveys and structured observations.	Seek to explore phenomena. Instruments are more flexible, interactive. Use semi-structured methods such as in-depth interviews, focus groups and participant observation.
Analytical objective	Quantify variations. Predict casual relationships. Describe characteristics of a population.	Describe variations. Describe and explain relationships. Describe individual experiences. Describe group norms.
Question format	Closed.	Open-ended.
Data format	Numerical.	Textual.
Design flexibility	Study design is stable from beginning to end. Participant responses do not influence or determine how, and which questions the researcher asks next. Study design is subject to statistical assumptions and conditions.	Some aspects of the study are flexible (e.g. addition, exclusion of interview question). Participant responses affect the next questions. Study design is interactive that is data collection and research questions are adjusted according to what is learned previously.

Table 3-1: Comparison of quantitative and qualitative approaches
Adapted from Creswell and Poth (2016)

Flint et al. (2012) suggested that qualitative research methods have the potential to support the field of SSCM to the extent that it could continue to advance conceptual context and practical application. A comprehensive literature analysis by Lis, Sudolska and Tomanek (2020) stressed the limited number of SSCM publications using qualitative analysis.

3.3.1 Data collection

This research draws from an in-depth literature review and primary and secondary data. The literature review derives from multiple sources, including academic journals, PhD theses, conference papers, books, trade publications, and academic and business websites. Multiple sources were used to gain broader knowledge, identify the research gaps and to outline the context of the research.

Primary data were collected through 12 one-on-one interviews, two of which were sources in the pilot study. In general, a pilot study in research is arguably very beneficial for research design as it helps validate the data collection methods, frame the research direction, and outline the data collection flow. Also, it is often considered to contribute to a more structured and formal approach to the main study, which also facilitate the development of more appropriate research questions. Also, practically such an exercise operates as a rehearsal for the actual data collection (Yin, 2003). Moreover, the approach develops an opportunity to improve data collection, especially in multiple case study research that follows the logic of replication. Owing to the richness of the pilot study data, the researcher decided to integrate findings into the main study.

Primary data collection was collected through semi-structured interviews using a mixture of both closed and open-ended questions. These interviews yielded in-depth information from the participants' own words. The adopted approach helped to produce high-quality, reliable and applicable case study data (Maimbo and Pervan, 2005; Verner and Abdullah, 2012).

The collection of primary data and secondary allowed the researcher to triangulate the findings. The application of triangulation (multiple sources of data) can enhance the reliability of the study results (Stavros and Westberg, 2009) and enable one to saturate the data (Fusch and Ness, 2015). Sutton and Austin (2015) defined triangulation as the ability to see the same thing from different perspectives thus, able to confirm or challenge findings of one method with those of another. Denzin (2012) identified four types of triangulation: data triangulation, referred to as people, time, and space; investigator triangulation, referred to different investigators observing the same data; theory triangulation, referred to application of different theories and alternative theories to the data set; and methodological triangulation, referred to combination of quantitative and qualitative techniques in a mixed-methods study would be between-

method (or across method) triangulation (Fusch, Fusch and Ness, 2018). The researcher used a perspective from multiple suppliers and multiple data sources to investigate the sustainability adoption and sustainability diffusion.

3.3.1.1 Secondary research

SME research as a scholarly discipline is quite young. Very few scholars have shown interest in the sustainability practices of SMEs (Witjes, Vermeulen and Cramer, 2017; Mani, Jabbour and Mani, 2020). Despite the dominant role SMEs play in many countries, research attention has been far from comprehensive (Dey et al., 2019). Considering the importance of the field and apparent lack of scholarly attention, academia has begun to discuss the need to expand SSCM knowledge in SMEs.

The position has led to specialised academic conferences, specific journals, and special issue articles. Academic journals such as *Family Business Review*, *Entrepreneurship, Theory and Practice*, the *Journal of Business Venturing* and the *Journal of Small Business Management* continue to be the main outlets for SME sustainability business studies. These specialised journals form a significant part of the literature review.

However, owing to limited language skills, only English-language publications were included. The publications were accessed through the Queen Margaret University's electronic search tool LRC (The Learning Resource Centre), which integrates data from multiple publishers, databases and e-print open archives that include large content providers such as ABI/Inform, Cambridge Scientific Abstracts, Elsevier, Emerald, JSTOR, Sage, ScienceDirect, Springer, Oxford, Wiley and many more. The researcher also utilised Google Scholar to access other relevant publications.

To find relevant academic material regardless of the disciplinary background or the terms used for describing the phenomenon, detailed searches were conducted using the following keywords in various combinations. The following search terms were applied:

- Supply chain, supply chains, sustainable supply chain, product chain, supplier chain, value chain, supply network, inter-organisational, inter-organisational purchasing, sourcing, life cycle, integrated chain, and responsibility.

To capture the element of environmental and social responsibility the following search terms were used:

- Environment*, green, green supply chain, sustainab*, ethical, sustain* supply chain, responsible and social (Environment* and sustainab*, were truncated to allow for all possible endings in the word).

To capture the management element the following search terms were used:

- Management, strategy, governance, and control.

To capture the responsibility in SME element the following search terms were used:

- Csr in sme, social sme, environmental sme, green sme, sustainab* in sme

All possible combinations of these terms were used to search through both abstracts and keywords.

3.3.1.2 Primary research

This research examines fashion retailers and their first-tier, second-tier and third-tier suppliers as part of a supply chain analysis. This type of multilevel perspective offers new insights that could not be achieved through study of a single unit (Wilhelm et al., 2016). The case study method and multi-case studies have several advantages. They provide a more consistent base for theory building based on the richness of information of each case study under analysis. Case study investigations may provide a resulting theory to be consistently supported by the empirical evidence, which allows pattern recognition of attributes and themes, linkages and logic (Eisenhardt and Graebner, 2007). Overall, the theory created from multiple cases is considered more robust because the arguments are more deeply grounded in varied empirical evidence and rich information.

This research examines the retail operations diffusion of sustainability practices and investigates the sustainability practices of first-tier, second-tier and third-tier suppliers. The triads of buying organisation and suppliers offer this study an opportunity to investigate the sustainability practices and explore the influences and verifications of sustainability diffusion. ‘Triads have been proposed as the smallest unit of a network because they make possible the analysis of the impact of a third party on a relationship between two other organisations, something that is not possible when focusing on

isolated dyads' (Wu, Choi and Rungtusanatham, 2010, cited in Mena, Humphries and Choi, 2013, p. 61).

Interview methods are one of the most widely used methods in qualitative studies and an in-depth interview method is appropriate when attempting to explore new phenomena. Many researchers have applied this method to investigate environmental and social sustainability and SSCM (e.g. Oelze, 2017; Azevedo, Scavarda and Caiado, 2019). The open-ended interview questions were developed from the extensive literature review, similar studies, and prior research experience. Industry experience and pilot study feedback helped refine the interview questions and interview structure. The pilot study helped redesign interview questions that yielded responses that were more detailed and facilitated the researcher to evaluate conditions, timing of questions and topic relevance. Design of open-ended questions allowed the researcher to introduce new information that the interviewer may not have previously thought of. In order to gain further insight, the literature suggests the use of 'open-ended discussions' (Ryan, Coughlan and Cronin, 2009; Aminoff and Kettunen, 2016). The interview questions also contained a few closed questions, which were mainly used to verify facts or confirm understanding.

A structured type of interview is generally formalised and uses standardised questions that closely resemble surveys. By contrast, unstructured interviews tend to be more like a conversation (Bryman, 1998). However, Bryman argues the need for some sort of structure to ensure research comparability. A semi-structured approach is better focused than the unstructured approach, yet less formal than the structured. Gillham (2000) revealed that semi-structured interviews are highly flexible and regarded as the most important form of interviewing in case study research. This 'loose' form of interviewing invites participants to communicate organisational practices, enabling them to say, do and be what they want at that moment in time. It also allows the researcher to adapt to individual interview scenarios, which gives flexibility when researching a topic such as sustainability and sustainability in supply chains. The semi-structured interview method gradually reconstructs the participants' subjective view and seeks to validate previous interview findings, as well as re-examine alternative views (Qu and Dumay, 2011).

In each case, publicly available data were reviewed before conducting the interviews, so the researcher had a prior understanding of the organisations' backgrounds and information about the sustainability conditions of the organisations. The interview

questions presented in Appendix D – Sample interview questions – served as the researcher's blueprint that steered the interview process, acting as the structure for the interview process. However, the interview questions only acted as a guideline. The interview questions were continuously restructured based on each interview flow. The interview process became more refined and developed as the data collection progressed. The interview schedule was comparable for all interviewees in terms of topics covered and time allowed.

The researcher initially gave an introduction of the research subject, followed by a brief outline of the potential growth and importance of the topic. The researcher explained the ethical conditions and rights as participants. After mutual agreement, interview questions were presented. The information was reordered with an audio recorder and, where relevant, notes were taken. The researcher intentionally made an effort to have a natural flow of knowledge. However, prompts were vital to gain validity and explore the possible virtue signalling of information. The researcher is aware of the natural subjectivity of the interview process, and therefore investigated physical evidence, secondary information, and network information for organisational practices. The researcher bootstrapped with organisations' sustainability-related publications and documents that revealed the organisations and diffusion of sustainability values. The researcher was able to triangulate multiple data sources.

All interviews were conducted in English. Considering the sensitive nature of supplier information and the sustainability supply chain practices discussed, all associations were made anonymous, with no mention of the organisation and supplier identity or the merchandise supplied. Therefore, the case descriptions include only anonymous information. The two retailers are discussed as A and B, while the upstream suppliers in their respective supply chains were identified as A1, B1, A2, B2 and B3 etc.

The researcher initially intended to conduct all interviews in person to allow him to build legitimacy and rapport with the participants, and to observe the business premises, have informal conversations with employees, and observe body language. The field notes document the direct observations of interviewee responses and interview sites; informal discussions with interviewees and the reflections of the researcher were employed as additional sources of evidence. No single source has a complete advantage over others (Yin, 2009) and multiple sources are highly complementary. Table 3-2 summarises the comparative strengths and weaknesses of the major evidence sources used. However, the international supplier base and busy schedules

of local network partners meant that some interviews had to be conducted over the phone or video facilities. Therefore, not all the interviews were face to face. Direct observations were only made during face-to-face interviews or facility visits. Initial interviews were conducted face to face or via Skype services, while follow-up interviews were all telephone or Skype interviews. The follow-up interviews were mainly used to clarify different concepts, identify nuances, reflect, and capture changes. All interviews took place in offices, business premises and public cafes, depending on the participants' availability.

Methods	**Strengths**	**Weaknesses**
Interviews	Targeted: Focuses directly on case study topics. Insightful: Perceived casual inferences and explanations.	Bias due to poorly articulated questions. Response bias. Inaccuracies due to poor recall. Reflexivity: Interviewees gives what the researcher wants to hear.
Documents	Stable: Can be reviewed repeatedly. Unobtrusive: Not created as a result of the case study. Exact: Contains exact names, references, and details of an event. Broad coverage: Long span of time, events, and many settings.	Retrievable: Might be difficult to find. Biased: Selectivity if collection is incomplete. Reporting bias: Reflects (unknown) bias to author. Access: May be deliberately withheld.
Direct observation	Reality: Events in real time. Contextual: Covers context of 'case.'	Time: Highly time-consuming. Selectivity: Lack of broad coverage without a team of observers. Reflexivity: Event may proceed differently because it is being observed. Cost: Human hours needed.

Methods	Strengths	Weaknesses
Participatory observation	Reality: Covers events in real time. Contextual: Covers context of 'case.' Insightful: Interpersonal behaviours and motives.	Time: Consuming. Selectivity: Broad coverage difficult without a team of observers. Reflexivity: Event may proceed differently because it is being observed. Cost: Hours needed by human observers. Bias: Participant or observer manipulation of events.

Table 3-2 Strengths and weaknesses of data sources
Adapted from Yin (2009)

All the interviews were recorded, transcribed, analysed and summarised. Recording of the interviews enabled the researcher to give the interviewee full attention, concentrate on the information, and formulate follow-up questions. Although Opdenakker (2006) suggested that the presence of recording equipment can reduce spontaneity and adversely affect the richness of the material gathered, all participants were aware of their right to have the recording device turned off or recorded material deleted if needed. Transcribed interview data were presented to research participants for feedback on the interview itself and confirmation of data collected.

Further, considering the sensitivity and potential risk of the information, it was made clear that the researcher was not interested in measuring the results, success or failure of sustainability or SSCM behaviour but simply to understand the processes associated with sustainability implementation and the consequences this has on the organisation, supplier network, and inter-organisational processes.

However, the interview method is often time-consuming and lengthy and at times requires the interviewer to travel to the site, which creates reduced accessibility when participants are geographically diverse. As result, the interviewer must find alternative means or to interview a smaller sample (Beiske, 2007). In addition, data analysis can be very difficult and time-consuming, as interviews, apart from structured ones, tend to produce non-standard responses. Some scholars maintain that interview studies are extremely costly, especially when participants are geographically scattered (Bailey,

1982). Also, as a subjective technique, the interview approach has the danger of bias (Beiske, 2007).

3.3.1.3 Pilot study

Before the investigation of the case studies began, the researcher conducted a pilot case study. The aim was to (i) get an initial background perceptive on sustainability-inspired SMEs' sustainability practices and their diffusion of sustainability; (ii) support the development of interview questions; (iii) refine research questions and (iv) improve the case selection, data collection plan and case protocol. Saunders, Lewis and Thornhill (2009) suggested that piloting and subsequent revision increases the validity and reliability of the research protocol. Reports suggest that, since the research topic is relatively new and the research does not intend to test previous similar research, a pilot study would be of benefit (Malmqvist et al., 2019).

A geographically convenient SME fashion retailer in Edinburgh, Scotland, was chosen. The sustainability-inspired SME has a strong reputation for adopting responsible practices. Publicly available organisational information, media reports and customer reviews guided the sample selection.

The researcher, at first, communicated with the owner, seeking consent for pilot case study participation. The researcher notified the researcher intentions. Before the interview, the participants were given an overview of the project, outline of the research questions, and confidentiality and consent agreement (see Appendix E: Consent form and information sheet). Data containing personal details that would lead to the identification of participants will destroyed as soon as possible. Any identifiable data is stored separate from the anonymised data to prevent linkage. All participants contact details were kept until they have consented or refused to participate in the research or in some cases retained until research summary has been sent out. All data collected will be saved electronically, including consent forms which is scanned and saved. Personal data is transferred and saved in password-protected file on the university server. Interview data will be stored in password-protected files on USB storage and university server. Data entered onto the secured university shared drive will be linked anonymised. The researcher will retain the code that link de-identified data to participants' details during the data collection till the analysis and de-identification is completed. In order to maintain the integrity of stored data, data is protected from physical damage as well as from tampering, loss, or theft through limiting access to the data. Also ensure data is store locally as opposed to on third party servers where you

are unable to restrict access. As an extra measure data will be stored on a password-protected file. Notebooks or paper notes are kept together in a safe, secure location away from public access, e.g., a locked file cabinet. All possible paper notes are scanned and transferred to the electronic media and saved in password protected files on USB storage and secure university server. USB storage device will be destroyed after the completion of the research. The notebooks and paper files will be shredded and destroyed. All data to be stored coded with QMU approved ethical procedure to guide the data collection (see Appendix F: Ethical application). Participants were notified about the intention of using a recording device. They were given the researcher's contact details and offered access to the results if required, then given a brief outline of the proposed content of the interview. The interview was programmed to last an hour at most, with the participant free to answer business calls and emails or to pause or even abort the interview if needed. The researcher took notes during the interview. After the interview, the researcher asked for feedback and comments, although this step became superfluous as the interview process progressed. The same research process in applied to the primary research study as well.

3.3.1.3.1 Pilot data analysis

The pilot study was undertaken to improve the semi-structured interview by highlighting inconsistencies and areas of interest. Therefore, the interviews were analysed to identify: whether the organised topics answer the research question; which questions were superfluous and could be cut to save time; and how research questions could be refined to elicit better answers in less time. In this analysis, the pilot interviews and the interview process acted as a research setting or field experiment. They provided a window to observe the business owner's daily setting, including how they reacted to some sensitive questions, especially considering the sensitivity and privacy of supply chain networks, the willingness of the organisations to share supplier information needed to be evaluated. Further, the pilot study gave an opportunity to evaluate the time constraint. However, the pilot study provided much greater insight than anticipated. Therefore, the researcher used the pilot study organisation as part of the primary data collection.

The findings of the pilot study indicated that certain corporate-centric sustainability tools are irrelevant and personal beliefs are a vital component to implement sustainability. The researcher was able to recognise that access to multiple direct (first-tier) suppliers is challenging. The main reasons for this are (i) organisations are unwilling to disclose their entire supplier base, (ii) SMEs rely on ad hoc purchasing

patterns; thus, suppliers change constantly, and (iii) SMEs source from agents who represent multiple suppliers; thus, they had no communications or interactions with some supplier(s).

The researcher enters the participants' reality with a threat of bias (from the researcher and participant). On the researcher's side, this could range from asking leading questions to changing the situation by their presence. From the participants' side, they may be swayed by how they perceive their social role themselves, and the interview situation, or by what they know about the environment. Another methodological issue is what happens when two or more people are interviewed together (e.g. a husband and wife team, or sibling directors). Research based on the British Household Survey concluded that joint interviewees influence each other's answers; scholars described this interaction as the 'reactivity effect' (Zipp, Prohaska and Bemiller, 2004). For this reason, wherever possible, joint owners were interviewed individually.

3.3.1.4 Case study

Eisenhardt (1989) defined case studies as ways of 'understanding the dynamics present within a single setting' (p. 534). Similarly, Collis and Hussey stated that 'case studies are used to explore a single phenomenon in a natural setting using a variety of methods to obtain in-depth knowledge' (Collis and Hussey, 2009, p. 82). Yin (2009) suggested that 'a case study is an empirical enquiry that investigates a contemporary phenomenon within its real-life context, especially when the boundaries between phenomenon and context are not clearly evident' (p. 12), while Willis (2007) argued that case studies are 'about real people and real situations [they commonly] rely on inductive reasoning [and] illuminate the readers understanding of the phenomenon under study' (p. 239). Within these broad definitions, scholars have identified various types of case study. Willis (2007) suggested that, within the interpretivist framework, 'researchers do not seek to find universals in their case studies. Instead, they seek a full, rich understanding of the context they are studying' (p. 240). A case study can be viewed and analysed in isolation (within-case analysis) or compared to other cases (cross-case analysis) to provide insight into the research issues (Bruscia, 2005). However, in multi-case research it is imperative to provide a detailed description of each case and themes within the case – within-case analysis – followed by a narrative analysis across the cases, called a cross-case analysis (Creswell, 2009).

Flyvbjerg (2006) claimed that logical social science enquiries are not methodology-driven but problem-driven. Therefore, case studies enrich social science enquiry with new insight and unexpected findings. The research objectives are materialised using multiple case studies in a single industry to explore the contextual determinants in the Scottish fashion industry and to generate knowledge on sustainability and sustainability diffusion their supply chain.

3.3.1.5 Why case study?

The literature indicates that the case studies approach is dominant in SSCM, as the research area is still an emergent field; it is still at theory-building rather than theory-testing phase (Touboulic and Walker, 2015; Brandenburg, Gruchmann and Oelze, 2019). The case study method was selected as the most appropriate way of inductively exploring new insights and the relationships between the business and its stakeholders (Currall et al., 1999; Bennett, 2004). The pilot study reconfirmed the use of case studies as the most appropriate method for this research. The method has two outstanding strengths.

First, the research can be investigated in the natural background, which allows a more in-depth examination of the actual practices, which will lead to more accurate, meaningful and relevant conceptions. Second, the researcher can gain greater knowledge of the nature and complexity of sustainability implementation as the participants are attached to the context or situation. According to Crabtree and Miller (1999), case study research initiates close collaboration between the researcher and the participant, whereby they can describe their views of reality. The approach often provides the ability for the researcher to better understand the process (Baxter and Jack, 2008). Noor (2008) explained that a case study is not a method of studying a whole organisation but rather facilitates the examination of a particular issue in an organisation. A multi-case study approach can extend subject knowledge and capture the participants' perception as the unit of analysis (Ridder, 2017). This understanding emphasises the suitability of adopting a case study approach to this research.

Researchers have suggested that a multi-case study approach supplements external validity and guards against observer bias, aids triangulation, and to a degree improves generality (Yin, 2009). Research design provides an opportunity to investigate multiple participants (multitier). In addition, different data sources also mean that data can be triangulated, allowing the phenomenon to be viewed from different perspectives and enhance the reliability of the findings. The approach is also versatile in that the

researcher is prompted to use a variety of data collection methods, depending on the situation and conditions. More importantly, this research provides the opportunity for theoretical replication rather than sampling logic. Therefore, the study design is well suited for supply chain research since each supplier represents different stages in the fashion industry. Each supply chain partner practises unique sustainability approaches as it allows the process and evolving patterns to be studied.

On the other hand, the main criticism of case study research has been the lack of objectivity and rigour (Lock and Seele, 2018). Many general debates between quantitative and qualitative researchers have been about the validity and the generalisability of qualitative research (Bryman and Bell, 2007). It should be noted that the aim of case study research is not to generalise the findings of a sample to a population but to offer new perspectives, insights and possibly theoretical models to further subject understanding. The researcher is aware of the possible insertion of researcher bias. One vision of case study research is that 'scholars enter the scene with a sincere interest in learning on how [actors] function in ordinary pursuits and milieus and with a willingness to put aside many presumptions' (Stake, 1995, p. 1). Since researchers immerse themselves in the study to gain a comprehensive understanding of the context, it can be characterised as inherently subjective (Flyvbjerg, 2006). However, clear research objectives, a consistent and coherent research design, an appropriate research strategy and data collection methods in conjunction with analysis that adhere to protocols ensure academic rigour (Holloway and Todres, 2003).

The methodology facilitates a more in-depth understanding of SMEs' supply chain sustainability conditions. Additionally, the researcher allowed the research to evolve and the objectives to be revised and reframed while maintaining the underlying research focus. The explorative nature of the research and complexity of the supply chain advocate that initially only a small number of cases are needed, primarily until a data saturation point.

Initially, the researcher considered the adoption of grounded theory, but soon dismissed it; as Strauss and Corbin (1994) noted, 'the major difference between grounded theory methodology is its emphasis upon theory development' (p. 274). The research focus is to develop a conceptual model as a tool for a sustainability rating. Therefore, the thesis guides future development of theory through multiple trials of

sustainability performance model. So, the researcher undertakes to contribute to knowledge, not theory development.

3.3.1.6 Selection of case study

This research practised a 'non-probability sampling' technique for case selection. The social constructionist epistemological research essentially surrounds the technique. Emmel (2013) stressed that selection of case samples to be more purposive rather than random. This research adopts a 'purposive' sampling technique, which is one of the most prevalent techniques used in qualitative research (e.g. Fekpe and Delaporte, 2019; Kot, Haque and Kozlovski, 2019). A purposive sampling or judgemental sampling technique is very beneficial in selecting more experienced and knowledgeable participants in the field (Sharma, 2017). They can present in-depth detail and significant insight into the subject. Given the dynamic nature of the research area, the samples might not be representative of the population but rather illustrative of different approaches to sustainability within Scottish SMEs and the diffusion of sustainability in their supply chains. The choice of cases was therefore based on conceptual not representative grounds, which enables in-depth understanding.

Case sample selection is based on the researcher's judgement on which potential sustainability-inspired fashion SMEs in Scotland have the characteristics that might enable the researcher to gain insights, provide evidence, and answer the research questions and fit the conceptual framework. This helped the researcher to set the foci and parameters for sampling decisions. Although a snowball sampling approach is argued to have significant advantages and has been used in various family business studies (e.g. Baah and Jin, 2019; Lilimantik, 2019), the research was not able to utilise this approach, as sustainability has been a battlefield for 'big fish', considering the newness of the subject SMEs are 'small fish' and only a limited number of fashion SME retailers in Scotland adopt sustainability practices. In addition, the research was unable to use the snowballing technique to gather the supplier information within the supply chain, as SMEs are unaware of their suppliers or have only relatively limited power to influence sustainability upstream. SMEs' power over subsequent supply chain partners is low; further information beyond first-tier suppliers is almost non-existent.

As discussed in the introductory chapter, the research focuses on sustainability-inspired Scottish-based fashion retailers. Therefore, the researcher used Google search tools, social media, organisation websites, and blogs promoting ethical fashion

for shortlisting the sample selection and identifying a sample population. The main criteria for the case selection were the industry, sector, ownership and size. Thus, the participants had to be SMEs registered in Scotland. The researcher used the Scottish Company Registry to recognise Scottish-owned fashion retailers. The selection of retailers needed to be subject to the same regulations and laws, since this impacted sustainability implementation. This is significant to generate insightful information about institutional influences, thus meeting the needs of the research; only Scottish-registered retailers was considered. As this research advocates the study of SMEs it was common sense to select a sample confined exclusively to the definition of SMEs. The researcher applied the European SME definition to identify only SME retailers. The choice of the sample should be informative and capable of generating important information for research. In general, retailers are organisations that buy goods in large quantities from manufacturers (or importers), either directly or through a wholesaler, and sell them to end-user customers. Thus, retailers are at the end of the supply chain (Cole, 2018).

However, sustainability is not limited to the final product. In fact, every phase of the supply chain (or product life cycle) impacts the overall sustainability development. Therefore, the willingness to share potentially sensitive supplier information and access to buying organisations' supplier base was essential as they are fundamental in enhancing performance and capabilities related to sustainability. Therefore, the choice of the sample should be informative and grant access to the supplier network to generate relevant information for this study.

The researcher was able to identify 18 sustainability-inspired SME fashion retailers in Scotland. Each of these retailers had a unique supplier base. The shortlisted SMEs were initially contacted by email and followed up with a telephone call. Out of the selected 18 SMEs, two had ceased trading during the period, four ignored the email request, five immediately declined to participate, three displayed great enthusiasm but were not willing to provide access to supplier information. Four SMEs were finalised for this research and participated in the initial round of data collection but one had a first-tier supplier that was unresponsive to the request for second-tier supplier information and the other had a first-tier supplier decline to participate. Therefore, neither was unable to gain the much-needed supplier sustainability information. As anticipated, the sample selection process had many challenges, but finally the researcher was able to gain full access to two Scottish fashion retailers and their entire supply chain. The participating retailers' first-tier, second-tier and third-tier primary data were used for this

research study. According to researchers, qualitative information does not stop except after the full development of the research, where any further information is considered redundant – referred to as 'data saturation' (Fossey et al., 2002). Data saturation in interviews could take place between two and 10 participants (Creswell, 2009).

As anticipated, the supply chain had a global scope. The researcher had no control over or pre-knowledge of the geographical distribution of the supply chain members (first, second or third tier). With the consent and support of the participating retailer, the first-tier suppliers were identified. The researcher collected buying organisations' supplier base and placed them in rank order according to the organisation's purchase volume. The researcher was able to communicate with the top supplier(s) based on the accessibility and availability of first-tier suppliers. The researcher followed the same selection criteria with the second-tier and third-tier suppliers. Where applicable, second- and third-tier suppliers were investigated to explore the diffusion of sustainability. The sample selection exemplifies diversity, which confirms complexity and identifies the sustainability conditions within the supply chain.

Only the owner-managers were chosen as interview participants because they were the best informed about the sustainability practices and more importantly, unlike LEs, SME owners' influence on strategic decisions significantly impacts the research subject. Finally, the availability of the participants for face-to-face or telephone interviews between August 2017 and January 2019 was also taken into consideration. Most of the initial interviews were conducted face to face, with subsequent interviews partially via phone to confirm the information and add to previous information. While the initial interviews covered in-depth themes including the participants' vision, mission, personal beliefs and values, the follow-up interviews were to identify key suppliers and clear out the noise; all of the overseas supplier information was gathered through telephone and virtual interviews.

However, case studies are criticised for the difficulty to generalise as the approach is too context-dependent and may simply verify researcher bias (Bryman and Bell, 2007). Research validity refers to whether the findings are consistent with what they appear to be. The essential feature for research validity is to make sure that the relationship between the concepts remains causal. Another means to ensure the reliability and validity of the research is to avoid subjectivities that shape and influence the search results (Creswell, 2013). As recommended by Yin (2003), this research adopts several key measures to improve the research validity. The use of multiple case samples adds

external validity and helps guard against observer biases (Creswell and Creswell, 2017).

Reliability within the research framework refers to the extent to which data collection or data analysis procedure will produce consistent findings. Scholars suggest three questions that indicate the reliability of research: (i) 'Will the measures yield the same results on other occasions?' (ii) 'Will similar observations be reached by other observers?' and (iii) 'Is there transparency in how sense was made from the raw data?' (Saunders, Lewis and Thornhill, 2009, p. 157). This research adopts a well-defined research protocol, and the methodology is clearly defined; see Table 3-3, which sets out the actions adopted to strengthen the validity and reliability of the research method.

Test	Tactics	Action	Phase
Construct validity	Multiple sources of evidence establish chain of evidence. Review draft.	Multiple case studies, multiple actors. Interview recorded. Data submitted for review.	Data collection. Composition.
Internal validity	Pattern matching. Explanation building. Rival explanation. Use logical model.	Literature were explored, re-explored critically reviewed, patterns were evaluated against the data. Conducted a pilot study. Triangulated with business reports, industry norms and standards.	Data analysis.
External validity	Replication on multiple cases.	Theoretical context used for data analysis. Validation through secondary data.	Research design.
Reliability	Case study protocol.	Methodology described. Analytical phase described. Sources are cited. Focused semi-structured interviews.	Data collection.

Table 3-3: Case study tactics and action
Adapted from Yin (2003) and Ebneyamini and Sadeghi Moghadam (2018)

The researcher adopted critical reflective thinking on the aspects that influence the planning, conducting and writing of the research. Executing a data triangulation method helped the researcher to improve the accuracy of judgements by collecting different types of data on the same phenomena, reducing the impact of potential bias. The researcher was successful in collecting a substantial amount of data from very different sources: professional industry magazines (e.g. fashion, textiles) and consumer generalist, scientific studies (e.g. chemicals in textiles), and reports sponsored by a governing body (e.g. Fairtrade). Theory triangulation derives from the examination of literature on management of sustainability and theories that provide alternative perspectives relating to literature review and interpretation of data. The findings provide different views that help evaluate the results of this research. Additionally, a thematic analysis based on a common topic was generated. The analysis provides a methodical examination of the current situation of SSCM.

Number of cases

The initial decision in the case study research design understands the distinction between single case and multiple case designs. Significant consideration for a case study design is the choice between a single case design, on an in-depth and interpretative basis (Klein and Myers, 1999) and a multiple case design on a more constructive basis (Dyer Jr and Wilkins, 1991; Eisenhardt, 1991). Yin (2009) suggested that a single case design is appropriate when the case is: (i) a critical test of a well-formulated theory; (ii) an extreme or unique circumstance; (iii) a representative or typical case; (iv) a revelatory case, and (v) for a longitudinal purpose. By contrast, a multiple case design often uses replication logic. According to Creswell (2013), 'multiple case study through detailed in-depth data collection involving multiple sources of information and reports a case description and case themes' (p. 97). Rowley (2002) and Yin (2009) suggested that each case in a multiple case study should be selected to enable either of the following two types of replication: (i) a literal replication, where different cases predict similar results or (ii) a theoretical replication, where different cases produce contrasting results but for predictable reasoning. A multiple case design offers a robust framework for data collection (Ebneyamini and Sadeghi Moghadam, 2018), increases the generalisation of the data collection process (Miles and Huberman, 1994), yields more compelling evidence (Baxter and Jack, 2008) and enhances explanatory power (Miles and Huberman, 1994). Multiple cases allow wider exploration of research questions and theoretical evolution (Eisenhardt and Graebner, 2007).

It is argued that the validity of qualitative research is more related to the richness of information captured from the selected cases, as well as the observational and analytical capabilities of the researcher (Avison and Malaurent, 2013). Accordingly, scholars maintain that the sample size is not the most important factor for research validity. There are no precise guides for the number of cases (Perry, 1998), but there are some general rules that help a researcher to designate the number of cases. For example, Yin (2009) recommended that designating the number of cases depends on the certainty that a researcher can achieve a decisive conclusion. Similarly, Eisenhardt (1989) suggested that cases should continue until theoretical saturation. According to the practice of various researchers, the most extensively accepted range of cases falls from two to four as the minimum, and 10 to 15 as the maximum (Miles and Huberman, 1994; Perry, 1998). In consideration of the above arguments about the number of cases selected, as well as the findings from the preliminary study, this research adopted two retailer studies in conjunction with subsequent suppliers from the supplier base. Two cases differing in characteristics were chosen to ensure the richness of the data.

3.3.2 Participants and analysis

All correspondence and interviews were conducted in English using simple language to make it more transparent and to avoid intimidating the participants. Participants were asked to reply by a specific date by phone or email. Every participant received phone calls and email reminders. Some interviews were rescheduled based on the participants' request. The researcher maintained contact with potential participants by sending them notice to remind them of their promise. Once a date was fixed, interviews were scheduled either in person or via telephone or virtual meeting. All the interviews were recorded and transcribed using prefixes in order to maintain anonymity. Most interviews were with one interviewee. Only one of the interviews was with two interviewees together (the husband and partner). All interviewees said they felt exhausted after the interview and most asked whether they had given the 'right' answer and wondered whether their answers were what the researcher had been expecting. During the informal conversation after the interview, one said, 'Hope you can do something with what I had to say, and I hope I was of some use to you.' The participants were given the opportunity to request for transcribed interview proceedings and were informed about their right to abandon or withdraw from the study. Participants

were sent a formal email thanking them for their participation and invaluable contribution to the research.

Following NVivo training, the researcher initially attempted data analysis using the software package. However, the researcher found it to be restricted in the analytical process and overly time-consuming rather than time-saving. The researcher was unable to maintain the overview needed to complete the analytical process and needed physical involvement to analyse the data. The perception coincides with the open debate over computer packages that aid the analytical process, suggesting that computer-aided approaches have the potential to disturb the research outcomes due to the limited and controlled options that could affect the rigour and transparency (Blismas and Dainty, 2003). Although computer-aided approaches have been established and are widely used, there is still scepticism about their use in qualitative study. While there is a general positivistic epistemological position on software packages, the goal of qualitative researchers is to try and see things from the perspective of the human actors (Roberts and Wilson, 2002). Mainly because of the nature and the interchangeable terms associated with the subject, the researcher did not want to lose sight of the larger picture. It is argued that the use of computer-aided approaches reduces critical reflection (Leech and Onwuegbuzie, 2011). The researcher found the need to be immersed in all data sources that involve repeated reading to search for meanings and patterns. One of the main concerns is that software will compromise the exploratory, interpretative character of qualitative research. Therefore, the researcher resorted to analysing each sentence of the participant responses manually. The researcher needed to identify whether information was relevant to the research aims. To accomplish this, the researcher needed to assess the overview of the individual sentence or sentence segment, whether the statement disclosed sustainability conditions or normal behaviour of an organisation.

The construction of codes used the data from participant interview, observations, reflexive journal entries, internal records, publicly available information, and narratives. Use of multiple sources helped the researcher to simplify and focus on specific characteristics of data (Nowell et al., 2017). The coding process required the researcher to revisit the data multiple times to identify important sections of text and attach labels to index them for establishing themes. The researcher followed the paradigm revealed by Braun and Clarke (2006) using first-, second- and third-order coding to identify, analyse and report patterns (themes), which reports on a six-stage process: (i) familiarise with the data, search for patterns (ii) generate initial ideas using

guiding concepts, (iii) search for themes, (iv) review themes, (v) define and name themes and (vi) write up. All the codes represent the organisations' self-reported perspectives on practices. The researcher identified themes that produce substantial portions of the data and link to the data themselves. It is important to note that the researcher does not intend to verify the validity of the sustainability initiatives. The research is limited to what the organisations deliberately stated during the interviews and reports. The researcher does not intend to discuss whether the behaviours are authentic.

Data analysis

Data analysis is one of the least developed and the most challenging parts of case study research (Gustafsson, 2017). Yin (2009) found that data analysis in a case study depends heavily on the style of rigorous empirical thinking, the sufficient provision of evidence, and critical consideration of different interpretations. Hence, Yin appealed to researchers to develop an overall analytic strategy for case study research. Miles and Huberman (1994) and Suter (2012) defined three components in qualitative data analysis: data reduction (extraction of the essence), data display (organising for meaning), and conclusion drawing/verification (explaining the findings); see Figure 3-2.

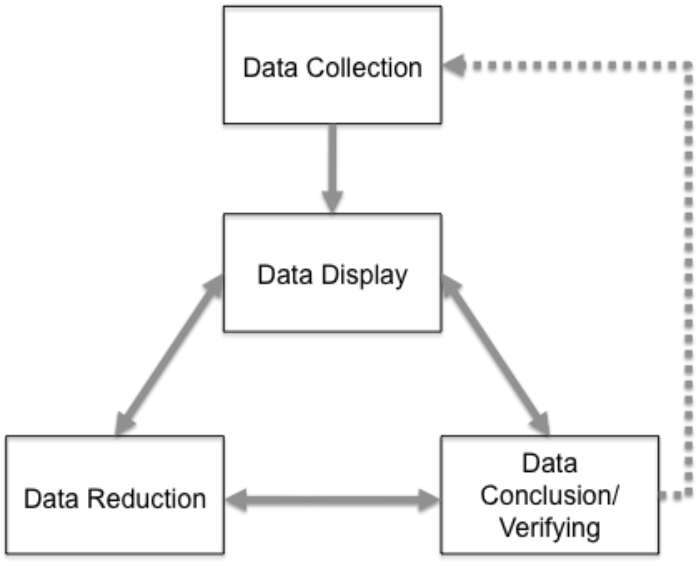

Figure 3-2 Illustrative model data analysis
Adopted from Miles and Huberman (1994, p. 12)

Yin (2009) highlighted some general principles for ensuring the quality of case study analysis: (i) attention to all the evidence (ii) addressing all major rival interpretations, (iii) addressing the most significant aspect of the case study and (iv) using the researcher's own prior, expert knowledge in within-case study and cross-case analysis. The main unit of analysis in this research is fashion SME retailers and their supply chain network. Data analysis consisted of two frames: the within-case analysis and cross-case analysis. The within-case analysis considered the embedded units of the supply chain as single cases, which allowed the researcher to understand the sustainability approaches of the retailer and their most significant first-tier, second-tier and third-tier partners. Within-case analysis enabled the researcher to define, reduce, display and make sense of the data (Pagell and Wu, 2009). According to Bennett and Elman (2009), within-case analysis is crucial to the generation of insight. Within-case analysis typically involves detailed, descriptive case study write-ups for each case (Eisenhardt, 1989;1991).

Bennett and Elman (2009) provided important insight for cross-case analysis. Cross-case analysis is used to identify common patterns between cases. The idea behind cross-case analysis is 'to force investigators to go beyond initial impressions especially with structured and diverse lenses on the data' (Eisenhardt, 1989, p. 541). The aims of cross-case analysis are: (i) to explore patterns across cases, (ii) to enhance generalisation, (iii) to deepen understanding, (iv) to develop more powerful explanations and sophisticated descriptions and (v) to enhance the opportunity to capture novel findings that may exist in the data (Ridder, 2017).

The researcher outlined the case and discusses the information about the sustainability practices of the lead SME (retailer) and the upstream supply chain (first-tier, second-tier and third-tier) partners. The interview findings were explored in two steps. First, the participants' narrative developed the understanding of the everyday experience of reality, in detail, to gain an understanding of the phenomenon in question. Second, the narrative form of qualitative data analysis enabled the analyst to make sense of events and actions in which they have engaged (Saunders, Lewis and Thornhill, 2009). In this research, the narrative analysis helped preserve the 'whole story' of each business, as well as compare across cases.

On the other hand, the literature on sustainability in the supply chain found several key concepts of different areas (e.g. sustainable management of the supply chain, SMEs, entrepreneurship, corporate social responsibility). The approach suggested that the

research adopt both inductive and deductive design: inductive as the researcher let the data and themes emerge from the case narratives, and deductive as the cross-case analysis method used the conceptual framework in order to highlight research questions and fundamental domains. Therefore, the framework formed from existing theoretical ideas that the researcher brought to the data (deductive) and analysis through the raw information itself (inductive).

During pattern matching and theme grouping, it was evident that some of the sentences contained quite a few non-specific terms. Although participants explained specific sustainability activities, broad terms such as ‘bad’, ‘happy’ and ‘good’ were commonly used, making it sometimes difficult to determine the organisations’ overreaching statements. As a result, it is useful to distinguish themes that reflect general statements about sustainability and specific statements linked to sustainability behaviours. A common approach to analysing qualitative data derived from interview findings is to use a thematic analysis approach. Once the data reaches saturation point the researcher thoroughly examines the patterns emerging from the data, which are then used to develop themes. Thematic analysis is the most widely used analytic strategy (Riessman, 2008). In this case, it is focused on the content of the participants’ narratives, their approach to business sustainability, and the relationship with stakeholders both upstream and downstream. This research also includes quotes to help understand the specific interpretations and establish a primacy of themes. As suggested by King (2004), some direct quotes from participants are an important element of qualitative research. The researcher included quotes within the analytic narrative to illustrate the richness and complexity of the cases. In addition, the researcher attempted to interlink current literature with the findings; therefore, the report stands with merit. The adopted approach goes outside of a description of the data that establishes the validity of the analysis (Nowell et al., 2017).

The themes are organised based on dimensions from the information collected during the interviews, observations, field notes, and analysis of sustainability and other reports, and published tertiary information about the industry. Identifying general and specific themes helped the researcher condenses the data to make it more manageable to work with and extract meaningful results from it to answer the research questions, as well as meet the research aims and objectives (Fugard and Potts, 2015). Ultimately, considering the dichotomous choice of whether emerging initiatives are beyond standard business practice is determined. Theme classification is based on whether the organisational exercises are essential for short-term organisational

survival. The researcher makes the determination through a combination of theory and practice-based arguments. If sustainability behaviour is fundamental for an organisation's short-term survival, then it is identified as being a part of standard business practice. Otherwise, it is an effort that goes beyond standard business practices. This research interprets the themes according to the TBL framework and groups them based on the three sustainability pillars.

Participant validity

Participant validation is an important feature. Throughout the entire process, the researcher often restated information and questioned the participant to determine accuracy. Participant validation is 'one of the essential routines in establishing credibility' (Lincoln and Guba, 1990, p. 55). Accordingly, participant validation, also known as member check, helps to improve the credibility, accuracy, validity and transferability of a qualitative study. In order to maintain accuracy and gain validity, each participant is given the liberty to request their interview transcripts and those of other participants (with anonymity preserved). A couple of participants requested the main themes and standard practices within the industry.

Alternatively, Creswell and Miller (2000) suggested another method for establishing credibility: to describe the setting, the participants and the themes of a qualitative study in rich detail. According to Denzin (1989), 'thick descriptions are deep, dense, detailed accounts while thin descriptions by contrast lack detail, and simply report facts' (p. 83). In this case, the researcher sought to add thick descriptions for academic validity.

3.3.3 Ethical consideration

According to Runeson and Höst (2009), there are several principal elements in ethical considerations: (i) board approval, (ii) informed consent, (iii) confidentiality, (iv) handling of sensitive results, and (v) safety of the participants and the researcher. This research was conducted based on the ethical guidelines of Queen Margaret University, which were approved by the University Ethics Committee in February 2017. The QMU board-approved ethical application provides a detail protocol on the handling and storing of confidential information. The approved ethics certificate is exhibited in Appendix F: Ethical application.

All interview participants were adults who had permission from their organisations. The research consent forms were given to every potential interviewee by email before the

interview. The consent includes the following critical details recommended by Ritchie et al. (2013): (i) the purpose and scope of the study, (ii) introduction of the researcher, (iii) data collection methods, and (iv) participation means of the participants and the estimated time required. It was important to make sure that this research, analysis or conclusion had no foreseeable impact on any of the participating businesses. This research contains business details and information and exposes the upstream supplier network, so it was imperative that all the participants were informed. The researcher took the opportunity to emphasise the principles of confidentiality and voluntary participation in the consent form. The interview would not have been carried forward if the potential interviewees did not give their consent to participate in the research project. It was made clear that the participants could withdraw or exit from the research at any stage.

The researcher committed to respecting the confidentiality of the information and the anonymity of respondents. The participants were advised of QMU's privacy and data policy and given an assurance that the data would be destroyed at the end of the study in accordance with the ethical guidelines. Anonymity meant that the identity of the participants would not be recognised by anyone except the researcher (Ritchie et al., 2013). Confidentiality means avoiding direct and indirect attributions of comments through reports, publications or presentations of the research findings so that nobody can identify the participating parties (Ritchie et al., 2013). The researcher ensures the data provided by identifiable participants remain confidential. In order to avoid direct attribution, the researcher anonymised the participating organisations and the participants. In comparison to direct attribution, indirect attribution requires particular care (Ritchie et al., 2013). Indirect attribution refers to a collection of characteristics that might identify the participating parties. Anonymity is preserved in both direct and indirect attributions in collected data and the case write-up. The researcher practised extra caution when reporting sensitive contextual details. Case A replaced the real names of the case organisation's supply chain, the retailer is identified as A and the subsequent upstream suppliers as A1, A2 and A3, while the second case was identified as case B, the retailer was identified as B, and the subsequent suppliers were anonymised as B1 and B2, respectively.

However, the Chetna Organic Coalition (ChetCo) and Harris Tweed manufacturing within the two cases were unique and their intentions are transparent. The researcher purposely discloses this information for the potential benefit of making the knowledge public. There is no potential harm or any ability to associate downstream case

organisations. Further, the researcher significantly relied on publicly available information from the two organisations. The two disclosed organisations are not direct suppliers to the case retailers but are indirect contributors to the sustainability initiatives. The researcher has taken significant steps to conceal the supply chain link to the retailer or any of the upstream suppliers through disclosed associations.

3.3.4 Methodological limitations

Although case study methodology has been adopted as the main methodological technique, its use by nature suggests the examination of organisation or the supply chain as a group is only a 'sample' of existing Scottish fashion SMEs. Therefore, according to scholars, case study approach is clearly less appropriate for theory testing (I.e., confirmation or disconfirmation) (Gerring, 2004) and any conclusions drawn from the results cannot be easily generalised (Yin, 2009). However, generalisation can be enhanced by the strategic selection of cases (Seawright and Gerring, 2008). As discussed previously, random or representative case selection may not be the most appropriate, given that they may not provide the richest insight. Samples in this research tend to be small in order to support the depth information rich case-oriented analysis that is fundamental to this mode of inquiry. On the other hand, lack of information and access to lower-tier suppliers as well as the sensitively nature of the subject limit the sample selection. The researcher was in a relatively weak position when seeking access to potential participating sub-suppliers. In addition, SME retailers' power and control over supplier base also impacted the ability to access suppliers.

Scholars note that lack of representativeness in single or small sample case study research is due to lack of rigor in empirical material collection, construction, and analysis. The question is also related to the researcher's bias or subjectivity (Hamel, Dufour and Fortin, 1993, p. 23). However, this argument against case study research misses the point of doing this kind of research. According to Cousin (2005) case study method is not aimed to analyse cases but it is an effective method to describe cases and to explore a setting to understand it. According to Creswell (2013b) case study method 'explores a real-life, contemporary bounded system (a case) or multiple bounded systems (cases) over time, through detailed in- depth data collection involving multiple sources of information and reports a case description and case themes' (p. 97). On the other hand, poor case selection may also lead to overgeneralisation or serious misunderstandings (Bennett and Elman, 2006). Use of multiple case studies the researcher is able to analyse the data both within each situation and across

situations either to understand the variance or augur similar results in the studies (Vannoni, 2015). Unlike single case selection evidence from multiple cases is measured strong and reliable (Baxter and Jack, 2008). The integration of supplier base as an embedded unit within the case selection enabled the researcher to look at subunits that are located within the larger case. Therefore, evidence generated from a multiple case study is strong and reliable and the researcher can clarify if the findings from the results are valuable or not.

In order to achieve research goals, individual perceptions were sought with potentially emotive statements being communicated. This incorporates the issues of construct validity, concerns that of the replicability and reliability of case study analysis. Reproducibility of findings is amongst the criticisms of study of this nature as well as is affected by the contextual nature of perceptions as participants convey a more thoughtful and sympathetic relationship with sustainability approaches.

Case studies have often become a synonym for freeform research where anything goes. The lack of systematic approach to case studies is something many researchers see as the greatest concern due to a relative lack of methodological guidelines. This criticism seems unfair as many contemporary case study practitioners have increasingly sought to clarify and develop more robust methodological techniques and epistemological reasons (Bennett and Elman, 2010, p. 499).

3.4 Research questions

The fundamental goal of research is to create knowledge and present structured information that is of lasting value (Melnyk and Handfield, 1998). It is one of the key steps of any research to establish what the research is attempting to uncover. Generally, the research question denotes the knowledge gap that needs to be filled in order to solve a problem, which can be problem relating to operations, theory or learning.

In a supply chain with multiple tiers, buying organisations face a deceptively simple question. Is the buying organisation responsible for the sustainability in supply chain? If so, does the buying organisation directly manage the sustainability of the entire supply chain? Who influences and how can the buying organisations verify the sustainability aspects throughout the entire supply chain (e.g. the first tier and beyond)? How is this

examined? If transparency calls for supplier disclosure, the notion that exposing the supplier network can lead to a commercial disadvantage. How can this be tackled?

Based on the above considerations, the following research questions are proposed:

Given individual organisations have control over their ethical, environmental, and social practices: RQ 1: How can fashion industry small and medium buying organisations exercise influence over actors in a supply chain?

Given individual organisations establish their own sustainability specifications: RQ 2: How can fashion small and medium organisations verify that actors in the supply chain meet buying organisations' sustainability specifications?

Considering the increasing stakeholder demand for sustainability: RQ 3: How can fashion industry small and medium organisations and their supplier base achieve a balance in multidimensional sustainability expectation?

Considering the increasing stakeholder demand for sustainability in the supply chain: RQ 4: What effect will it have over the structure, processes and flow of the supply chain?

This research intends to answer all four questions to describe, explain and understand the phenomenon of sustainability in an SME context.

This research contributes to multiple research gaps in the literature. This research is one of the only contributions relating to SME sustainability supply chains from a Scottish context, and it therefore addresses the huge void in knowledge. This research recognises the sustainability diffusion in SMEs, which contributes to limited academic work (Burton and Goldsby, 2009). This study investigates and understands the concept of SSCM in the specific context of SMEs, in order to contribute to and develop existing SSCM research.

This research employs multiple organisational management theoretical lenses to underpin the findings with more detailed methods of analysis than previously used to examine sustainability practices of SMEs.

This research intends to wholly examine the current disproportion between the economic, environmental and social, also known as the ‘triple bottom line’ along the supply chains, how sustainability performance dimensions are addressed in practice, and to gain insight into the current skew towards the more tangible, measurable economic and environmental performance dimensions in SSCM (Ashby, Leat and Hudson-Smith, 2012). Furthermore, it aims to gain insight into how specific industry characteristics and principles inform research. The focus is on the unique perspectives offered by SMEs and their efforts to address sustainability performance in their supply chain practice, exploring how SME characteristics and supplier relationships contribute to SSCM in this context.

Moreover, this research responds to the need for a systematic and easy-to-implement overall sustainability performance model (Steinhöfel et al., 2019). The creative leap in this research project comes through the proposed conceptual sustainability performance model with the future objective to develop a cumulative multitier responsibility metric, which will be valuable for consumers, buyers, suppliers and future research.

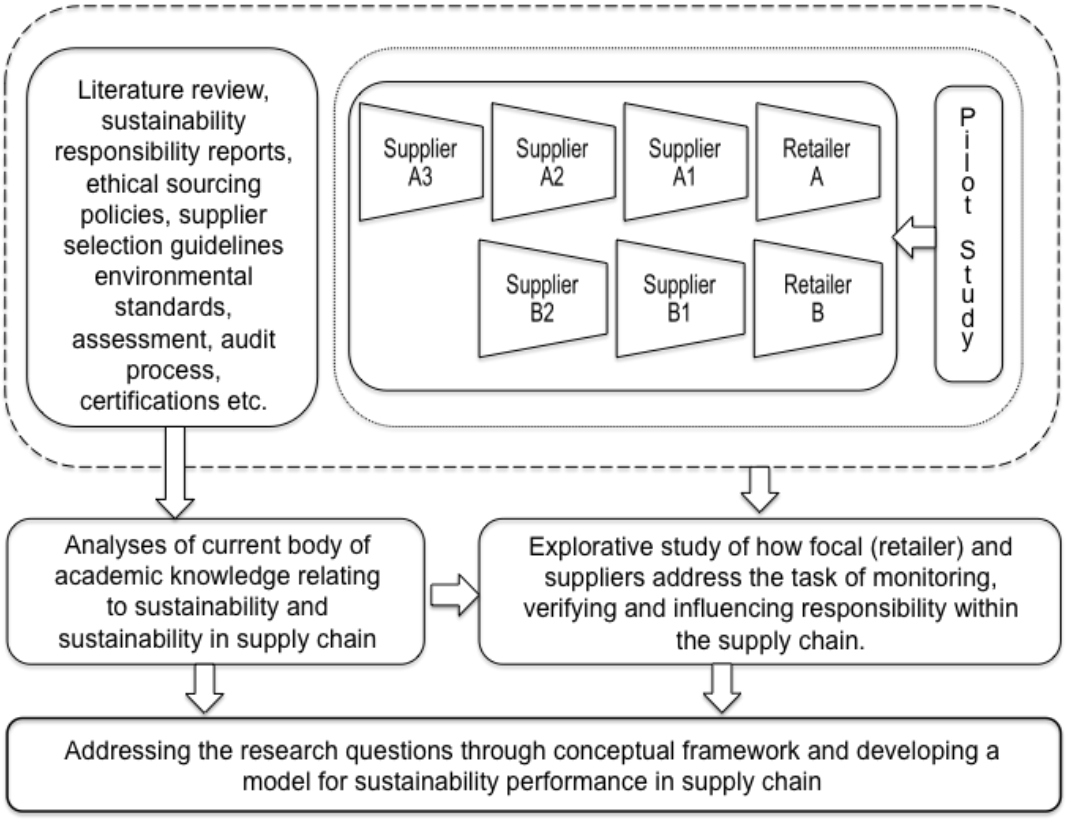

Figure 3-3: Overview of the research design

3.5 Summary of the chapter

The chapter revealed both the methodological position and the rationale behind the research design and data analysis. The chapter outlined the nature of knowledge, i.e. the epistemology, and the way reality, i.e. ontology, is considered, viewed and defined. It presented the selected multi-case study qualitative research method. Considering that SSCM is an evolving and contemporary understanding, constructivist philosophy is more appropriate to explore this specific context. The research employs a multiple exploratory case study approach. The chapter continued to present the sample selection process; the cases were selected based on their ability to provide rich information and to explore sustainability influencing and verification aspects within supply chains and how the researcher gained access to suppliers in the selected case study sample. The researcher gained access to both the focal retailer and one of their significant suppliers at every phase of the supply chain. The chapter presented the information relevant to the way the primary and secondary data were collected. Primary data collection was through semi-structured open-ended interviews. Additional evidence resources were organisations' documents, direct observations, and participant observations. The process of data collection was explained, followed by how data were used for the analysis. The following section outlines the case findings and analysis.

CHAPTER 4

4 Case Study Findings and Analysis

4.1 Introduction

This chapter aims to introduce the reader to the case studies. This research examines sustainability-inspired SME fashion retailer and the subsequent suppliers in their supply chain. The case sample represents SME fashion retailers registered in Scotland and their diverse supply chain partners. As discussed earlier, the researcher had no control over the selection of supply chain partners.

4.2 Supply chain study: retailer A

The case findings begin with a brief outline of retailer A's supply chain. In Figure 4-1, the circles in grey represent actors in the supply chain who were investigated; circles in white represent suppliers in the supply chain that it was not possible to investigate or which were not known to the focal retailer.

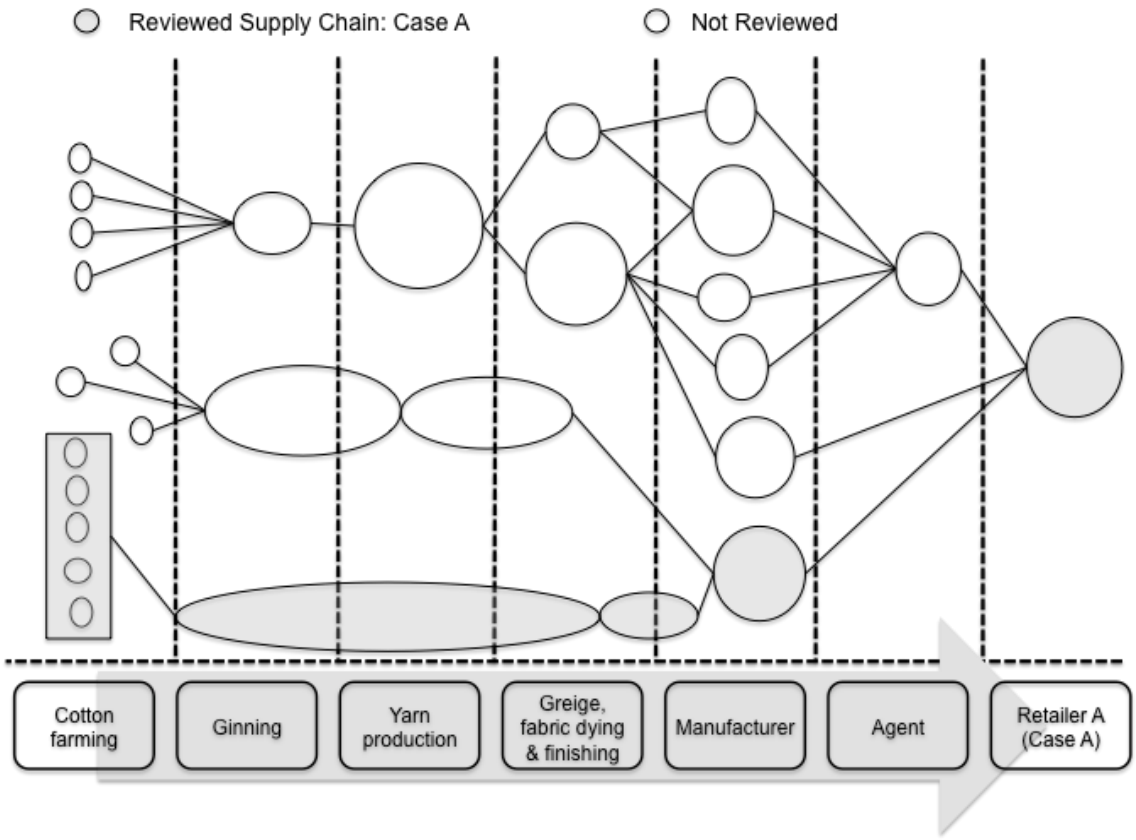

Figure 4-1 Supply chain structure of retailer A
Adapted from research work, 2017/18

Starting from left to right, multiple circles inside the rectangle represent the cotton farmer coalition, which is a collection of small farmers functioning as a collective unit partnered with a social organisation called the 'Chetna Organic Coalition' (ChetCo). Although not to exact scale, the different circle sizes intend to illustrate the relative size of organisations. The linked subsequent larger oval spanning multiple production processes illustrate an integrated fabric supplier; this firm is involved with the ginning, yarn production and finishing processes. The next, smaller oval represents the manufacturer, while the linked subsequent circle represents the fashion brand. One of the features in the case sample is that the brand is involved in manufacturing. Finally, the retailer is illustrated. In the context of this research, the retailer will be the final position of this supply chain.

The retailer A is the focal organisation, while the research examines the upstream supplier base, first-tier supplier, or brand A1, and subsequent upstream suppliers, the second-tier, sub-supplier or manufacturer, A2, and the third-tier, raw material supplier, A3. Findings reveal that the focal retailer also purchased reasonable quantities of merchandise from a sourcing agent who represented multiple brands. However, the researcher was unable to gain access to the agent and other sub-tier suppliers, as they were unwilling to participate in this study. The researcher had difficulty in gaining access to all the upstream suppliers. However, despite the limitation, the examined supply chain provided insightful information for research development.

The retail owner was supportive in providing details of one of the key overseas suppliers. According to the focal retailer A's financial information, approximately 40% of retailer fashion articles are purchased from the first-tier supplier, A1. However, according to the first-tier supplier, A1, most of A1's products are sold in its own stores in Spain and Europe, while the Scottish retailer, A, is the only retailer in Edinburgh selling their ethical fashion brand. A's purchases account for less than 5% of the turnover of the first-tier supplier, A1. The first-tier supplier, A1, and the focal retailer, A, do not appear to be in a close collaborative relationship but the first-tier supplier, A1, believes that all retailers are part of their brand image. There is no evidence of commitment by retailer A supporting first-tier supplier A1 on any sustainability initiatives or vice versa. However, evidence suggests that first-tier supplier A1 is more than happy to disclose supplier production information to the retailer. Findings suggest that the buyer–seller relationship is more contract-based. Data provide evidence of a low supply chain transparency. Retailer A has limited communications with the first-tier supplier, A1. Evidence suggests that first-tier supplier A1 introduces innovative

sustainable fashion products regularly such as zero-waste garments, organic products, and Fairtrade products sourced from sustainable suppliers.

The owner of the first-tier supplier, A1, was very transparent about the production process and willingly granted access to its most valued second-tier supplier, A2. Purchasing records reveal that first-tier supplier A1 purchased more than 60% of its fashion merchandise from the second-tier supplier, A2, in India. Importantly, 100% of its organic cotton-based garments originated from the second-tier supplier, A2. The most notable sustainability initiative is the Fairtrade-certified 100% organic fashion collection and zero-waste collection. The findings suggest that the first-tier supplier, A1, maintained a close relationship with the second-tier supplier, A2. Unlike focal retailer A, evidence suggests that both parties considered each other 'partners' and mutually depended on their long-term buyer–supplier relationship. Equally, their sustainability characteristics are mutually dependent and both organisations work closely with each other on sustainability development. Despite the buying power of the first-tier supplier, A1, both parties remained mutually interdependent. The findings highlight key factors that strengthen their relationship: (i) the fit between the two in terms of business values, commitment, reliability and expectation, (ii) the clear vision on environmentally friendly products and production, (iii) the good reputation and technical expertise, and (iv) frequent communication between the two.

Further investigations into first-tier supplier A1 revealed that their unique approach to collaborate with a social non-profit coalition, which improves the livelihood of smallholder farmers by making the farm practices more sustainable and profitable, enabled the brand A1 to penetrate ethical and Fairtrade markets. Apart from gaining access to sustainable organic cotton the collaboration facilitated: (i) premium cotton price for farmers, (ii) low investment cost (unlike genetically modified organism (GMO)-seeded farming), (iii) higher returns, (iv) local self-sustainability, and (v) expert knowledge. This approach helped maintain supplier environmental and social performance.

Like the first-tier supplier, A1, the second-tier supplier, A2, was enthusiastic about the research and willingly supported the project by granting access to the third-tier supplier, A3. According to the reported data, almost 60% of garments were produced from the fabric supplied by A3. The financial data of the second-tier supplier, A2, suggested that more than 50% of the fabric purchases were from the third-tier supplier, A3. From this, it is safe to assume that both parties depended on each other.

Investigation into a third-tier supplier, A3, revealed that the second-tier supplier, A2, purchased more than 70% of A3's fabric supply. The findings suggest that third-tier supplier A3 mainly focused on the environmental aspect of fabric production owing to the expectations of the first- and second-tier suppliers. However, as an SME manufacturer operating within a small local community, the owner was conscious of incorporating employee initiatives as the social aspect of sustainability. Both parties considered each other 'partners', and evidence suggested a close collaborative relationship. However, it is evident that second-tier supplier A2 dominated the third-tier supplier, A3, in its influence on environmental and social projects. There was a shared identity through sustainability initiatives between the organisations and both shared similar environmental and social approaches.

An initial overview suggested that, apart from retailer A, the first-tier (A1), second-tier (A2) and third-tier (A3) suppliers adopted collaborative approaches and indicate their ability to influence sustainability, while retailer A relied on trust to monitor supplier sustainability.

4.2.1 Retailer – Focal retailer (A): brief details

Business: Retail
Sector: Clothing and fashion
Established: 2013
Employees: 6 full-time equivalent - 3 full-time staff, and 4 part-time staff
Location: Edinburgh, Scotland
Annual Turnover: £2.6M or €2.9M
Direct suppliers: 2 and an agent with multiple suppliers

Like most retail businesses, focal retailer A is geared towards customer satisfaction. The priority is to meet the expectations of customers. Since the start of the business operation in 2013, the retailer has aimed to offer high-quality contemporary fashion with exceptional customer service. Retailer A trades mostly carefully selected women's fashion brands that are stylish, uncommon and purse-friendly.

> I believe in quality, versatility, and brands with [an ethical] story. (Owner, Personal Interview A, 4 June 2017)

Focal retailer A buys merchandise directly from two well-established manufacturers and a sourcing agent who represents several different suppliers in Europe. The retailer has been purchasing mostly from the same suppliers over many years. The findings suggest that retailer A has built a good long-term business relationship with the first-tier supplier, A1. The focal retailer, A, has never found the need to identify suppliers beyond the first-tier supplier and no significant effort has been made to map out suppliers beyond the first tier. The findings reveal that the owner is unaware of both second-tier and third-tier suppliers. However, the researcher was able to draw a rough graphic illustration of the supplier network relating to focal retailer A (see Figure 4-1). The researcher used retailer A's purchasing details over the last two years to sketch a rough supply chain of the focal retailer. It is important to stress that the depiction is not a precise representation of the current supplier network of retailer A. The findings also suggest that some first-tier suppliers are only seasonal or have only collaborated with the retailer a handful of times.

Initially, retailer A did not pay much attention to sustainability. However, the owner's interest and values had shifted towards more sustainability paradigm, which has resulted in a shift in organisational behaviour. According to the owner,

> During the last few years, there has been an interest in eco-fashion for me personally […] I now use Fairtrade products I started wearing organic and natural fibre garments I think it is more self-realisation I did some research about the opportunities to sell organic and Fairtrade type products. At this point, I started the search for responsible suppliers. That is how I started to introduce new [ethical] products in my shop; now all the products I sell are Fairtrade certified. (Owner, Personal Interview A, 4 June 2017)

4.2.1.1 Focal company: commitment

The concept of 'sustainability' was a relatively new concept for focal retailer A. The finding suggests that, although environmental and social sustainability is rarely at the core of SMEs business model, the owner's personal values and beliefs on the environmental and social outlook have influenced retailer A. Even with these intentions, the findings reveal that economic responsibility takes priority, while environmental and social responsibility has only been more of a superficial concern. As with most of the retailers, efforts are ad hoc and informal. The findings suggest that the owner had the right intention to make the business operations more environmentally and socially sustainable. However, the investigation failed to find any stated or written form of formal sustainability policies. It was evident that retailer A mostly undertook only

relatively inexpensive random sustainability initiatives (e.g. reducing company waste, energy consumption, recycling, and employee rights). While these initiatives are steps towards a more sustainability business model, whether these actions create false impressions that are intended to maintain short-term organisational survival is questionable.

However, retailer A's efforts to shift to a sustainability driven sourcing strategy remained a key strategic initiative. The owner strongly believed that shifting to Fairtrade-certified suppliers remained a significant move towards achieving personal and organisational objectives.

> I didn't know what goes behind producing a dress or any fashion item for that matter, but after working in the industry for couple of years I realised what it takes to make an item […] have started to use Fairtrade products myself and sell Fairtrade certified products. I think it is important that we as retailers make a change. (Owner, Personal Interview A, 4 June 2017)

Despite the owner's bold claims, the findings suggest that financial and resources constraints made it difficult for retailer A to maintain a sustainability sourcing strategy. The findings highlight that SMEs continuously struggle to advance sustainability conditions owing to the gap between the desire to act and the capacity to do so.

According to the owner,

> sometimes it is difficult some suppliers have minimum order quantities. They don't realise that we are small. We [retailer] can't afford to stock large quantities. We don't even have storage space for them. Sometimes bigger suppliers want us [retailer] to pre-order a few seasons ahead – prepay for consignments, which is difficult for us. We [retailer] work on a tight budget I [owner] started this with my own savings I can't keep money tide over in storage I need to rotate my cash flow […] this restrict us [small firms] from working with some established brands. (Owner, Personal Interview A, 4 June 2017)

The case findings reveal that there is no specific sustainability policy. The study failed to discover any formal sustainability policies. The findings are consistent with the CEIS (2018) study that shows that the larger the business, the more likely it is to formalise its commitment to corporate responsibility. CEIS reported that only 32% of small organisations reported on implementing specific initiatives. By contrast, 62% of mid-sized organisations and 90% of LEs adopted formalised strategies.

According to researchers, SMEs are urged to make progress on sustainability development on different grounds, including government policy, social pressure, economic gain, and the values of the owner-manager (Williams and Schaefer, 2013). Research evidence suggests that the retail owner had initiated environmental and social efforts naturally without any external pressure. The evidence confirms the view that the owner or leader's values initiate sustainability in small businesses. Consequently, they are mostly unplanned and with no desire for recognition.

According to findings, consumer expectation is more associated with aesthetic choices including fit, self-confidence and self-presentation.

> People come to the shop [retailer] seeking revalidation of their self. They want to feel good in what they wear. I think most of the other things [sustainability value] are secondary. (Owner, Personal Interview A, 4 June 2017)

Interestingly, the owner dismissed the perception that the business continued to be motivated on sustainability practices for sales growth. The findings align with prior research findings (e.g. Oh, Chang and Martynov, 2011; Spence, Gherib and Biwolé, 2011). Although the owner implied that some consumer attitudes were affected by recent negative publicity and prior knowledge about fashion industry practices, the retailer was not pressured or challenged to adopt sustainability practices. According to the owner,

> I feel young customers that walk into the shop are much more aware of the footprint. Some of the long-time older customers don't have a clue. It is challenging as a shop owner; as older customers have a secure income and are willing to invest in a more sustainable garment collection, while their expectations are more into aesthetics and design rather than anything else [sustainability]. (Owner, Personal Interview A, 4 June 2017)

While progress on sustainability might enhance retailer reputation, the owner did not see this directly attached to profitability. According to the owner,

> shop sales have gradually increased over time. The introduction of Fairtrade and organic merchandise have boosted turnover, but the sales quantities remain relatively the same. The initial launch brought new customers, but we also lost some old [previous] customers due to the price point of the new product lines. (Owner, Personal Interview A, 4 June 2017)

From the perspective of economic performance, sustainability can generate turnover and growth, drive market share and build new environmentally conscious customers. The owner accepted that sustainability had a positive influence on the sale price:

> customers feel good about themselves when [retailer] offer organic Fairtrade products. […] products are really durable. The customers get good value for money. (Owner, Personal Interview A, 4 June 2017)

The owner further pointed that:

> customers will only accommodate a certain increase in price […] some of them really don't care [about price] some [customers] when you talk to them about it [ethical production] they realise that it is important. […] some [customers] are not bothered about where the clothes are manufactured; they really don't care. (Owner, Personal Interview A, 4 June 2017)

However, the owner's intention was not to pursue a deliberate strategy to improve economic performance but rather as a fundamental component of commercial business activity. The finding suggests that the sense of personal responsibility is more influential than the motivation towards increasing sales or improving profits. According to the owner,

> making money is an important part of the business […] we have invested our savings into the business. We want to have a fair return for the investment, some sort of financial freedom. That said I have a moral duty to the world. There is more to this world than making money. We must ask how some businesses sell clothes for such a low price. I know now that certain clothing takes certain time to stitch and so many other elements are adding value […]; we need to question how [industry] they can sell at that price, there is somebody down the line not getting paid properly I mean that is a fair assumption. If they [manufacturing employees] are paid a fair value, they will never be able to sell that at that price point. That is not right, as consumers we should be aware of support industry. (Owner, Personal Interview A, 4 June 2017)

This supports the findings of Revells and Rutherfoord's (2003), Barnett and Salomon's (2012) and Saeidi et al.'s (2015) studies that SME owner-managers observe no relationship between superior sustainability behaviour and financial benefits. Therefore, it suggests that sustainability is essential to SMEs for reasons other than simple cost–benefit calculations.

It is apparent that there were no specific guidelines on environmental or social practices throughout the enterprise as a fashion retailer. They were more concerned with the aesthetic aspects. It was quite evident during an informal conversation with employees that the enterprise promotes fashion articles with a view to make women confident in how they look. As seen in the retailer's vision statement, 'uncommon fashion', this promotes the enterprise as a fashion outlet that thrives on encouraging women to dress well.

The findings do not suggest that sustainability development for the retailer began from consumer expectations. Quite the contrary: it appears that many consumers have reservations towards sustainability inspired brands. According to the owner,

> people [consumers] don't ask some people really don't care sometimes I try to talk to them about how some of these people behind the garments are treated or what organic really means […] but what ultimately boils down is how they look and the price; nothing else. (Owner, Personal Interview A, 4 June 2017)

The owner highlighted the communications challenges as a fashion retailer. The interview findings show that customers seem to have a limited knowledge of sustainable and sustainability in fashion. In general, customers are not convinced of most sustainability behaviour. Increasingly, customers do not accept fashion brands' sustainability claims at face value; they demand transparency. Organisations need to take measures to convince consumers that they adopt better practices. Communications of sustainability strategies at times over-promise or declare excellence that results in the mistrust among consumers and stakeholders (Horváth et al., 2017; Darnall, Ji and Vázquez-Brust, 2018). Sometimes the amount of sustainability information provided by organisations leads to confusion, mainly because sustainability reporting channels are not regulated. Scholars have highlighted that most frameworks use a range of principles and guidelines that limit comparisons across enterprises, measure progress, or transparency (Krištofík, Lament and Musa, 2016).

However, from humble beginnings the retailer A had the desire to respect the environment, employees and people by creating strong links with the local community as a unique ethical fashion destination. The store, located in a borough full of both high-street and designer fashion outlets, despite high competition in a mature market, had been able to survive for more than five years with satisfying growth.

Despite the owner's claim of lack of time and resources, there is some evidence that the focal retailer embarked on localised social activities. It is also noticeable that SMEs adopt incremental responsible environmental measures. However, they seem to lack strategic planning in initiating sustainability strategy. The findings reveal few efforts to improve social embeddedness.

- Assessment of overall employee satisfaction: evaluations were performed once a month and integrated into retailers' operational management. There was a monthly meeting for each employee with the supervisor.
- For full-time employees: the 35 hours were concentrated into four days, so they got quality family time.
- Business followed a no-discrimination hiring policy.
- Training: health and safely and manual handling questionnaire.
- The owner embraced the use of low-energy-consumption equipment.
- Plastic policy: used recycled paper for packaging for customer purchases.
- Waste separation: disposal by a contract with local recycling collector.
- Local community partnership: the owner was an active member of the local community forum to develop the local community.

Retailer A's responsibility originated within the organisation; the sustainability development was part of the organisational culture initiated by the owner. The sustainability initiative was internally driven and 'out of conviction', primarily triggered by the owner's leadership. More importantly, leadership guided the total involvement of all. Observation suggests that the owner had taken efforts to educate employees on sustainability priorities. The owner's statement supports the findings:

> it is a group effort I cannot be here all the time I want my employees to perform as much as I do and for that [employees] need the freedom and the guidance. I encourage staff to come up with new ideas to make [operation] greener. (Owner, Personal Interview A, 4 June 2017)

The human resources policy of retailer A was primarily based on skills development (sales techniques), security and improving working conditions (fire safety, equipment safety), diversity and social dialogue (hiring policy and privacy). These efforts are in line with the significant social interests of the theoretical underpinning presented in an earlier chapter. However, the adopted sustainability-related initiatives are expected as normal part of doing business in developed economies. The approaches are mostly

cosmetic changes like recycled paper for packaging, disposal policy or unconvincing local community development efforts.

The limited resources of SMEs may explain the extent of the setting-up of employee benefit schemes. Additionally, considering the business priority of economic performance, their financial situation may not allow them to offer rewarding benefits to employees.

The owner took leadership in the overall strategic direction and allocated resources internally in terms of either time or budget. Zhu, Sarkis and Lai (2008) argued that leadership from top management is important to develop understanding and commitment to sustainability practices across the enterprise; continuous leadership support helps organisations adopt new sustainability programmes and renew sustainability strategies.

Scholars have argued that SMEs face significant challenges as they attempt to integrate sustainability measures recommended by various tools and management systems (Johnson and Schaltegger, 2015; Witjes, Vermeulen and Cramer, 2017). Findings suggest that environmental aspects are measurable, like tracking indicators for gas, electricity and water consumption. However, the owner believed that costs implementing innovative green standards and obtaining certifications continued to be excessive and too expensive. Further, the owner's perceptions were that they have a limited individual impact on the environment. This understanding continues to be a fundamental challenge for sustainability growth. The finding confirms the scholarly understanding (Ammenberg and Hjelm, 2003; Simpson, Taylor and Barker, 2004).

Despite the owner's claims of lack of external support for sustainability development, Zero Waste Scotland and the Scottish Government have introduced a 'cash back' scheme to help small businesses in Scotland tackle rising energy costs and reduce carbon footprint. They offer a 30% loan to invest in LED lighting, install efficient heating systems and improve insulation (Zero Waste Scotland, 2018). It has become the responsibility of the focal retailer to contribute to achieving these sustainability goals through compliance and the search for new sustainability paths acknowledging institutional support. However, according to the owner,

> I like what they are doing but I am not in a position to invest more I am running the business with [personal] savings and whatever I make [revenue] goes back as reinvestment in stocks I like what they [the government initiatives] are doing

> but I am unable to invest that will take years to repay. Industry is very competitive we must be on top of the latest fashions trends update stocks every two weeks. The storefront needs to be in prime condition – ambience [physical characteristics] attracts customers. They [customers] want to see change. (Owner, Personal Interview A, 20 March 2018)

The literature discussion suggests that a lack of transparency regarding these types of grants or initiatives remains a problem. The literature also highlights that SMEs receive a limited number of minor subsidies. On the other hand, findings suggest that the owner considered such subsidies or initiatives of no value to stakeholders.

Three key success factors of sustainability in retailer A can be categorised:

- The involvement of managers and staff. 'If the staff is not involved, we will not achieve anything.'
- The sincerity of the commitment of owner. 'The sincerity of the leader is crucial. This results in staff involvement.'
- The link with the activity. 'If the activity is not consistent with my business values this will involve lobbying without being honest.'

Given the importance of the owner in sustainability development, it is important to understand how the owner views responsibility. According to the owner, responsibility is:

> an obligation for this world we have to do a bit to save this world we need to reduce the landfill people make, reduce disposable low durability fashions that is what I think. (Owner, Personal Interview A, 4 June 2017)

Initial evidence suggested that retailer A did not pay much attention to supplier sustainability. The owner relied heavily on sustainability information provided by the supplier to make the supplier selection decisions; there was no evidence of supplier evaluation or supplier development. However, upon further investigation the researcher was able to uncover retailer A's key supplier expectations.

4.2.1.2 Focal company: sustainability supply chain expectation

The retailer expectations can be grouped as (i) accountability: the supply chain actors should be able to deal with its impact on society and the environment; (ii) transparency: the accessibility of information about the decisions and activities that impact the society and the environment. Have clear communication, accurate and honest information; (iii)

human rights: the organisation recognises and respects the importance of human rights, fair wages, working conditions and avoiding child labour; (iv) ethical performance: the suppliers behaving ethically (e.g. honesty, equality, and integrity); (v) recognition: appreciating the interests of stakeholders and consider their specific interests; (vi) obeying the rule of law: the organisation complies with all local and international laws and regulations; (vii) local and international standards: suppliers adopt the generally accepted principles or standards (e.g. labour or environmental).

Despite the overreaching expectations, unfortunately focal retailer A did not have a visible approach for supplier selection or supplier evaluation. The organisation looked through corporate responsibility policies on supplier websites and relied on publicly available information.

Supplier information tends to outline local and international standards, certifications and expectation from suppliers. A few suppliers outline their inspection process.

> I look through supplier information; never used to do that but once I started to introduce ethical products in my shop, I started to investigate supplier information I go through [supplier] publications, media reports, company website and sometimes fashion magazines. I trust them [supplier] more if they have gained some sort of accepted certifications which for me means that they are trying to apply I suppose western standards [ethical standards] to a country that maybe doesn't naturally follow. (Owner, Personal Interview A, 20 March 2018)

However, owing to the lack of a standardised approach to sustainability information disclosure the information is rather heterogeneous. It is challenging to cross-examine competing suppliers.

Retailer A relied heavily on trust and mutual understanding. There was no evidence of an internal procedure to monitor or verify supplier sustainability commitments.

> I generally start with more from the aesthetics; the look [design] I want to create […] I find a brand that I like the design; then when I start to learn more about the brand if they have the [responsibility] values and their values align with my values [sustainability] it becomes even more attractive. (Owner, Personal Interview A, 4 June 2017)

Nevertheless, the owner was committed to sourcing from suitable suppliers based on third-party certifications, self-declarations, fashion forums and agent recommendations.

4.2.1.3 Focal company: approach

Proximity

Proximity does not necessarily mean geographical distance. Scholars list multiple conceptualisations such as industrial proximity, organisational proximity, cultural proximity and temporal proximity (McNaughton, 2018). The geographical proximity view fosters local ties and trust, and promotes local economic interest. SMEs favour sustainability business practices that impact on stakeholders near them. In doing so, SMEs seem to search for equitable relations with local populations and confirm the sensitivity to local benefits of their activities. The retailer links the proximity of social relations and the local anchorage of environmental processes. Proximity creates the environment for a loosely structured organisation with centralised management. This type of management and operational system with informal information requires constant supervision by leadership.

The findings suggest that retailer A made regular donations to the community, which is consistent with the results of Sweeney (2007).

> [I am] involved in the local community development project; we are business owners work together to keep the streets drug free. It is a burning issue in Edinburgh at the moment, we [the community group] try to make the area a safe place – provide them [drug addicts] some help they need […] we feel the need to do something where we do our business. (Owner, Personal Interview A, 20 March 2018)

Sweeney (2007) concluded that social activities in SMEs align with the perception of conserving the wider community. Research findings confirm that SMEs are closer to stakeholders, so can more easily build relationships with them. They recognise social obligations through community projects (donations to charity, contributions for community projects). The importance of community giving confirms that SMEs financially support local communities without necessarily representing these behaviours as being responsible.

Trust

Trust remained a critical aspect of sustainability behaviour of the retailer A. The relational view of inter-organisational development advocates promoting close ties with a limited number of suppliers to foster greater trust and enhance competitive advantage. According to the owner,

> as an independent shop owner, I don't have a power [bargaining] I don't have the skills, experience, or knowledge to understand the process behind the brand [supply chain]. Some of them [supplier] are very aware of what they are doing; one supplier I work with has great expertise they work only with pre-screened suppliers. They work to improve business impact within their community. This is something more important for me now more than where I initially started, I do recognise that I can find brands that tick the boxes with the styles that I want the aesthetics that I want and are mindful of their place in the world. They are doing things to minimise things like the environmental footprint, and what they are doing to the communities they are working in. (Owner, Personal Interview A, 20 March 2018)

Even though SMEs may collectively represent a large share of the industry, individually they are too small to influence suppliers or brands. Sustainability runs on the entrepreneurial drive to find sustainable suppliers based on trust and collaborations.

> I want to work with suppliers who have values that are in line with mine but as I told you earlier, it is really challenging to find the right suppliers that meet my demands. (Owner, Personal Interview A, 20 March 2018)

It is understood that, owing to the nature of SMEs, they consistently rely on trust to develop supplier partnerships. At the same time, standards and certification act as a significant tool in developing a supplier base.

Third-party certifications and verifications

According to the owner,

> I am not aware of anything that would say this is a good company or that is not a good [sustainability] company, certifications give some sort of indication; sort of benchmark to the industry I don't know much about the industry so this [certifications] is important to find the background. (Owner, Personal Interview A, 20 March 2018)

When prompted about the reliability of supplier information,

> I have no other way I can't be visiting each and every supplier, even if I were able to, I wouldn't know what to expect. Just assume they follow an accepted controls and verifications. (Owner, Personal Interview A, 20 March 2018)

Even though it is argued that the certifications are flawed, retailer A identified them as a principal basis for supplier selection.

Personal values

According to the researchers, philanthropic practices associated with the personal values of owner-managers of SMEs. The findings and observation led the researcher to make a fair judgement that owner values influence retailer sustainability behaviour.

4.2.2 Tier 1 – Focal supplier/brand (A1): brief details

Business: Manufacturing/wholesale/retail/online
Sector: Clothing and fashion
Established: 1999
Ownership: Family
Annual Turnover: £13.5M or €15M
No of employees: 91
Location: Pais Vasco, Spain
Presence: More than 38 countries and 600 locations (approx.)
Production: Spain, India, China and Portugal

The operation was established in the late 1990s by the current owner, producing T-shirts with local cooperatives. Since its inception, focal supplier A1 has been on a mission to 'make a difference'. Without knowing much about the fashion industry, manufacturing or marketing, the organisation began producing T-shirts, mainly for music festivals. Initially, raw materials were sourced, and products were made within the local community. The operation has now evolved into a globally recognised eco-friendly (or environmentally friendly, defined as products that are 'not environmentally harmful') ready-to-wear brand. Concern over social and environmental impact led to the integration of sustainable fibre (e.g. organic cotton, linen, recycled polyester) and Fairtrade production values into the organisation's business model.

4.2.2.1 Sustainability supply chain expansion

The owner's strategic vision and business dynamics influenced the operation to expand exponentially. As a result, the 'source local make local' business model was restrictive, and the organisation sought to expand the supplier base. However, the owner never changed the core business strategy of long-term relationships with trusted suppliers. The research findings suggest that the owner relied on clear communication and alliance with the supplier networks. However, while at the beginning almost all the raw material supplies were from Spain (locally), with the business growth the supplier base extended to Morocco and Portugal. Gradually, the supply chain stretched to India and China during early 2003, at which point the owner understood the need for a greater sustainability commitment. According to the owner,

> it took us some time but we [supplier, A1] realise that rather than blame our suppliers about social and environmental negligence it is our [company] responsibility to make sure to take steps to eradicate and minimise negligence. (Owner, Personal Interview A1, 10 October 2017)

Additionally,

> it was a really different era back then [in 1999] we had never heard of sustainable fashion. However, we are now in an era where marketing has made sustainability fashionable in fashion. (Owner, Personal Interview A1, 10 October 2017)

When the researcher asked about notion of sustainability, the owner stated that it was:

> a value that must be embedded in all of the activity [including the supply chain] of a company and our brand. It gives us [focal company] a purpose, something the business feels is necessary to create; a positive impact in our society [social] and gives the opportunity to take care of the planet [environmental]. (Personal Interview A1, 10 October 2017)

The findings reveal that all suppliers to the focal brand A1 had to follow an ethical CoC to ensure that all practices respect both the people and the planet. Each supplier was required to obtain several sustainability certifications.

> from 2014 we [business] requested all suppliers to be certified, internationally recognised standards, SA8000, GOTS. All our new suppliers must comply from day one whereas our existing suppliers had to commit to engage in a gradual plan to obtaining the certifications. All our active suppliers have got certifications. (Owner, Personal Interview A1, 10 October 2017)

Additionally, the ethical code dictated terms associated with

> Social requirements: i) No child labour, ii) No forced labour (Employment is freely chosen), iii) No discrimination, iv) No restriction on association and v) No unfair bargaining (right to collective bargaining).
>
> Labour requirements: i) Payment of fair wage, ii) No excessive working hours, iii) Safe and healthy working conditions, iv) No Harassment and abuse, v) Legally binding mutual employment relationship, were introduced.

The focal brand, A1, adopted a quality over quantity approach, selecting a smaller number of sub-suppliers. Supplier selection was based on the risk assessment based on sustainability issues. The owner revealed that brand A1 frequently discussed potential risks if a particular product, production process or country operated unsustainably. Reports suggest that certain countries (production facilities) are a higher risk than others. The organisation's risk assessment process drew on the use of established certifications. Besides the use of certifications to control and verify supplier sustainability behaviour, the focal brand, A1, adopted scheduled and unscheduled factory visits.

> our internal teams' regular site [production facilities] visits are essential to reach [brand] own impression. I think factory visits are great way to improve our understanding about our suppliers. (Owner, Personal Interview A1, 10 October 2017)

The focal brand, A1, had taken steps to work with direct suppliers. In addition, they had made significant efforts to work directly with subsequent sub-suppliers. The focal brand, A1, continued to develop closer interactions with direct and indirect sub-suppliers. These conditions led the first-tier brand, A1, to set up sub-supplier initiatives. The organisation initiated on-site assessments, training and workshops.

The organisation's findings reveal that a responsible organic cotton supply network shared risk and reward in the production system. Table 4-1 highlights the organisations' input materials and service for each stage of production and processing. It also considers the output in term of outcomes and impacts for the people and the planet.

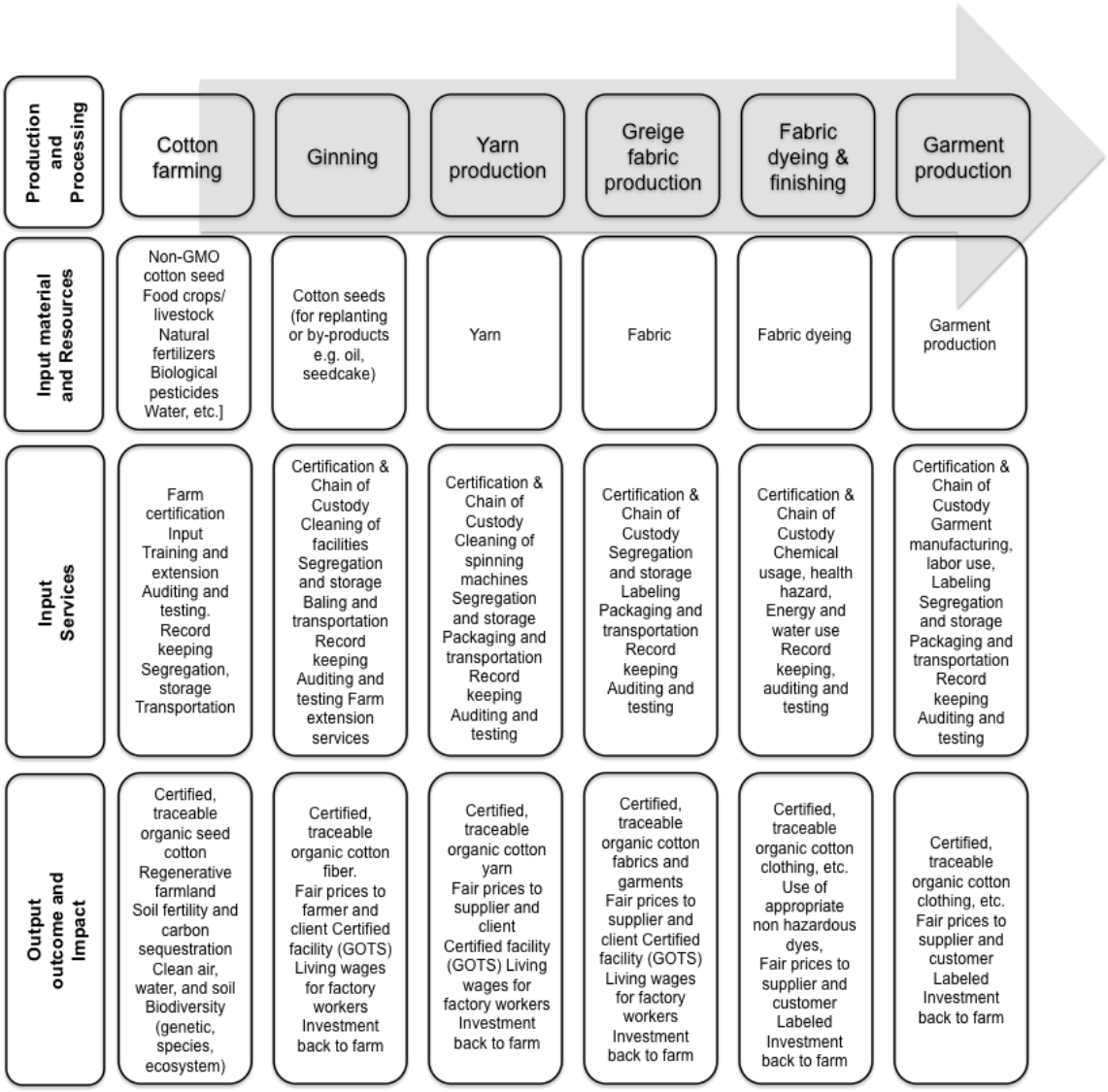

Table 4-1 Input, outcomes and impacts of organic cotton supply network
Adopted from Supplier, A1, information

Findings suggest that raw materials are the backbone of focal brand A1 sustainability efforts. The owner believed in a comprehensive approach rather than adopting an independent product collection (e.g. organic collection). Brand A1 was committed to sustainability principles across all operations, from fibres to wet processes, from packaging to transport, and in interaction with the consumer. The organisation joined with social organisation ChetCo in 2015; this is a coalition that incorporates the whole value chain in order to maintain organic cotton crops. According to the owner,

> these cooperative aids the transition from conventional to organic farming and supports our business to have full traceability of supplies. (Personal Interview A1, 10 October 2017)

However, apart from the partnership with the coalition, a summary of upstream supplier expectations is detailed below.

Supply security

Security for reliable and uninterrupted supplies of raw material, e.g. organic cotton. The organisation believed that suppliers need security as well, therefore they signalled their demand to suppliers 12–14 months ahead. The terms and conditions, along with the CoC, were mutually agreed, which enabled building business security.

Consistent quality and price

Securing organic cotton quality and at the right price. Concerns also arose from a lack of transparency or understanding of how organic is produced and priced.

Product integrity

Authentic organic cotton needs to be 100% free of GMOs. Ensuring the entire supply chain is using a chain of custody standard (e.g. GOTS) is vital in securing product integrity.

Benefit for farmers

Suppliers need to benefit from converting traditional farming to investment in organic. Brand also looked for Fairtrade policies, labour standards, and other social certifications.

Reliable information

Access to well-vetted supplier environmental and social practices and reliable data is important for decision-making and justifying choices. Brand reports suggested frequent factory visits and request for international standards formed a part of reliability.

4.2.2.2 Sustainability approaches

4.2.2.2.1 Approaches: raw material

Organic cotton

Documentary evidence and personal interviews show that focal brand A1 was committed to using 100% organic cotton by end of 2020. As a result, the focal brand strongly focused on the production process. The sustainability commitment meant an extra administrative burden. In order to accomplish organisational objectives, focal brand A1 had to motivate conventional cotton farmers to convert to organic farming

and align the entire supply chain practices. In order to gain the organic certification, farmers had to meet the requirements specified by the certifying body. However, unsurprisingly,

> to tell you the truth some [supplier] had no clue what 'organic' meant. This was our biggest challenge after the cotton enters the manufacturing process, there is no simple way to verify if a cotton yarn is made from organically grown cotton or not, therefore imposing suppliers to get certified was essential. We had to address the issue from step one [farmer] not only that the entire suppliers had to be restructured to accommodate organic production there shouldn't be any contamination [mixing of GMO cotton with organic cotton] at any point. (Owner, Personal Interview A1, 10 October 2017)

Often cotton farmers are poor. Many of them belong to a different generation and lack formal training in organic farming techniques or obtaining certifications. Additionally, owing to a lack of financial and other resources, the first-tier brand, A1, had to take additional steps to educate farmers in organic techniques.

The founder quickly realised that focal brand A1 could not achieve the objectives in isolation. A collaborative association would create better opportunities for innovation and support. They needed a continuous supply of certified organic cotton fibres. The owner viewed that, if the right people were brought together in a constructive way, they could create powerful outcomes. From this idea, focal brand A1 initiated work with the alliance ChetCo, the collaborative community, with the sense of common purpose, which facilitated sustainability goals. The supportive structure of the community mobilised knowledge, talents and expertise for the collective good. ChetCo works with small farmers and encourages them to connect with the organic farming programme. ChetCo educates and supports the farmers in organic cotton-farming techniques and helps farms meet certification requirements. ChetCo describes itself as a unique 360° social development enterprise in India for smallholder farmer families. The coalition's primary aim is to enhance their livelihoods by making farming more profitable and sustainable (Chetnaorganic.org.in, 2018).

ChetCo farmers produce around 6,300 tonnes of organic and Fairtrade seed cotton with no use of child labour, synthetic pesticides, fertilisers or GMOs. Out of the 15,279 farming families supported by ChetCo, 9,647 farms are Fairtrade-certified (Chetnaorganic.org.in, 2018). The coalition has taken the lead in organising various

training sessions, and workshops for suppliers and sub-suppliers. These efforts provide the capabilities, knowledge and skills required to achieve sustainability objectives.

With the attempt to achieve the objective of 'organic cotton', brand A1 had to recognise suppliers that align with the organic dyeing process as well. Wastewater from dyeing processes is one of the biggest contributors to textile effluent through residual dyes and auxiliary chemicals. Despite the development of dyes with high fixation, dyeing still uses high quantities of salt, water and energy, and creates colour pollution. Industry reports suggest that 10%–40% of dye residue contaminates freshwater (Amin and Blackburn, 2015). Apart from these initiatives, focal brand A1 had the objective of finding other solutions such as alternative fibres and zero-waste fashion.

Alternative fibres

As an alternative to organic cotton, the brand A1 looked for environmentally friendly fibres that contribute to sustainability (see Appendix G: Alternative fibre).

> we have to look at more sustainable ways of getting fibre so some of the alternative fibres that we are working are based on soybean, bamboo, bamboo this give us a really unique opportunity, bamboo is naturally antibacterial, and it is also a breathable fibre good for women's intimate apparel […] we have started looking at recycled polyester as well. (Owner, Personal Interview A1, 10 October 2017)

4.2.2.2.2 Approaches: innovations

Zero-waste fashion

With the overreaching purpose that fashion can and must be sustainable, the focal brand, A1, strove to find innovative production methods that can reduce waste and carbon footprint without sacrificing creativity.

> the idea behind our approach is to optimise fabric use, we [team] wanted to eliminate pre-consumer textile waste; realised that there is lot of fabric leftovers. It was a shock to see so much unusable fabric pieces as leftover. Some of our suppliers do sell them for alternative product development but we wanted to do something more. (Owner, Personal Interview A1, 10 October 2017)

According to industry research, approximately 15% to 20% of fabric is not used (Lau, 2015). An MIT report (2015) suggested that the world creates 40 billion square metres

of leftover textiles per year, which is directly thrown away as waste (Kirchain et al., 2015). The owner believes.

> because we were not thinking properly about the patterns while designing clothes, we challenge our designers to create zero waste garments considering both the pattern block and the fabric width. Essentially for 100% use of the total length and width of the fabric roll [see Appendix H: Zero waste garment design]. It is an innovative way of working and changed completely the way we think about creating garments. (Owner, Personal Interview A1, 10 October 2017)

The brand A1's approach contrasts with the investigation by Battisti and Perry that SMEs often try to minimise costs associated with the implementation of sustainability practices rather than looking for opportunities to fully integrate sustainability into their organisation (Battisti and Perry, 2011). However, while these types of innovative approaches are admirable initiatives, they only delay garments from ending up in landfill as waste. The approach does not address the fact that the scale of fast fashion is so massive that it can easily eclipse other sustainability initiatives. Nor do they address the wastefulness of existing technologies and the urgent need to research new ones (Liu, 2016). Additionally, the zero-waste garment design was developed for a specific collection; brand A1 had not yet applied the zero-waste approach to all their production. Therefore, it remained a minor solution to a massive issue.

4.2.2.2.3 Approaches: certifications

Third-party certification bodies usually visited brand A1's suppliers and/or sub-suppliers at least once every year in order to grant recognised certifications. According to the owner and confirmed in the brand's sustainability report,

> the important part is to monitor and continuously motivate our suppliers to stay within certification protocols. When we initially started working with our suppliers to switch to organic cotton, we understood the complexity of its farmers, spinners, knitters, printers, manufacturers all had to become certified […] We decided to rely on the accredited certifications, these certifications track every transition from organic farms. It is the only way to guarantee that what we do is truly organic. (Personal Interview A1, 10 October 2017)

4.2.2.2.4 Approaches: other

In-store recycling

Customers are encouraged to deposit clothing and accessories they no longer use in recycling boxes located inside stores. The brand A1 worked closely with a local social enterprise to sort the items. The collected items were sold at reduced prices. Items in poor condition went into recycling to produce energy. According to the owner,

> the objective of this initiative is to create social employment in local communities, so far, able to create 200+ social reintegration jobs. (Owner, Personal Interview A1, 10 October 2017)

Additionally, the initiative reduced waste by prolonging the life of garments. However, during the interview, the researcher was not able to discover any approaches adopted to recycle unsold clothing and accessories left at various retailers around the globe. The programme was only developed for the brand's own stores.

In-house repairing and swapping

Life-extending practices such as alteration and repair are critical for sustainability (Gwilt, 2020). The brand A1 also formed the in-house repairing service and swapping events initiative. According to the owner,

> the idea is simple by repairing our own garments and accessories we extend their life. (Owner, Personal Interview A1, 10 October 2017)

Similarly, swapping events were designed to give a second chance to clothing. Without them, they would be thrown away and end up in landfill. However, as with the recycle initiative, it was only adopted at the company level. As a wholesaler, the downstream retailers were not part of this initiative.

Carbon footprint

According to company sources in 2016, 95% of the products were transported by sea. Air transportation is mainly used to transport sales samples. Carbon-neutral shipment arrangements controlled online and store deliveries. Owing to the continuous commitment, in 2016 brand A1 was recognised by city hall as the best organisation committed to the reduction of carbon emissions.

Eco packaging

Biodegradable poly bags made from corn-starch were used to pack 100% of the products.

Moving onto the next level, the focal sub-supplier, the second-tier A2, was viewed by focal brand A1 as one of the brand's most valuable and appreciated suppliers.

4.2.3 Tier 2 – Supplier/manufacturer (A2): brief details

Business: Manufacturing/wholesale/export
Sector: Clothing
Established: 2002
Ownership: Family SME
Annual Turnover: £8M or €9M
Employment 260 (more than 80% women)
Location: Pondicherry, India
Production: India
Suppliers: India

The second-tier supplier, A2, is an exclusive export organisation offering sustainable ready-to-wear fashion and home furnishing products for markets outside India. The organisation was established in 2002 as social impact initiative providing employment opportunities for women and maintains a strong ecological focus through organic cotton. According to the founder, after learning about increasing suicide rates of farmers (according to the National Crime Records Bureau, a total of 296,438 farmers have committed suicide in India since 1995), the entrepreneur committed to finding a practical solution. Accordingly, developing sustainable organic cotton became a long-term solution. According to the owner,

> I started hearing about farmer suicides; cotton farmers in India were committing suicide every half an hour for me that was very distressing, and I really wanted to know why? I wanted to know what was happening in the cotton farms and going there you know spending good 3–4 weeks with the farmers. Sitting on a farmer's land whose husband had just committed suicide two days ago I took a decision to change, I moved into organic cotton. (Owner, Personal Interview A2, 23 October 2017)

Supplier A2 had taken action to align the supplier base with organisational sustainability priorities. In addition, they maintained accountability and transparency in

parallel with first-tier supply chain partners. Through sustainability initiatives, the organisation was able to increase impact directly through encouraging smallholder farmers towards a better living and working conditions for employees.

4.2.3.1 Sustainability approaches

4.2.3.1.1 Approaches: sourcing

Responsible sourcing

One of the main undertakings was to find sustainability driven suppliers. The upstream manufacturing process included textile production, spinning, weaving, knitting and wet processing. The first-tier brand A1's organic cotton initiative meant that the focal second-tier supplier, A2, had to maintain a sustainability and sustainable organic cotton supply. According to the owner,

> we are an ISO [International Standards Organisation] certified manufacturing plant that produce organic, Fairtrade apparel using sustainable fibre. When selecting our suppliers, we are committed to look at criteria that go beyond price and quality. As a certified organic producer, we [A2] have to make sure to have organic material. (Owner, Personal Interview A2, 23 June 2018)

Industry findings suggest that the organic farming community is very small and consists mostly of small, family-based farmers. It was important to recognise that organic cotton farmers are relatively small and financially unstable. The motivation for organic production usually derives from consumer demand and market trend. The research findings suggest a similar understanding, that brand A's demand and premium price were the primary motivators.

However, the biggest challenge had been convincing traditional farmers to convert to organic farming; thus, for the focal supplier, A2, it was about securing a sustainable flow of fabric production. The investigation revealed that the upstream farmers need to conform to strict organic techniques. Owing to a lack of knowledge and skills, they were required to learn completely new methods of farming. The subsequent suppliers such as the ginning mill had to train staff and invest a significant amount of time and resources into mastering new techniques. Initially, the suppliers had the burden of incurring the additional costs of supervising workers. In addition, there was further investment to handle upstream suppliers so that they do not leave the organic programme. According to the owner, the organisation had managed to maintain a sustainability in supply chain.

> we have managed to maintain a sustainable supply chain, we have reached out to more than 100 organic cotton farmers with more than 300 acres of land the entire spinning, weaving, knitting, dyeing even the printing process are all organic and Fairtrade certified. Our suppliers need to make sure there is no contamination [mix with traditional cotton] at any stage; we are accountable for our products – so this is our priority. (Owner, Personal Interview A2, 23 June 2018)

4.2.3.1.2 Approaches: innovation

Reduce fabric wastage

The manufacturing process generates textile scrap. Interview findings highlight that there is much pre-consumer textile waste at the production stage. This waste occurs in numerous ways, like 'textile swatches', which are leftover textile sample swatches from the production process, 'sampling yardage', which is factory surplus waste leftover from sample manufacturing, and 'cut and sew' waste, which is considered waste and discarded owing to the uneven nature and smaller piece size. 'Damaged textiles' are unused textiles that are damaged (e.g. colour or print defects), rendering them unusable, and 'end-of-rolls' are surplus fabric that is left over from garments. 'Clothing samples' are unfinished or finished unsold clothing. Many of this waste ends up in landfill or is incinerated at great cost. The waste also counts in the fabric production process, which uses millions of tons of water and kilowatts of energy and countless hours of human labour (SEI, 2019).

Despite fabric waste at various stages, the researcher could only identify three initiatives to address these issues. First, efforts to minimise 'cut and sew' wastage by supporting designers and pattern makers to improve yield per yard efficiency. However, these were mostly ad hoc and enhanced profitability rather than a strategic approach to enhance sustainability. Second, bigger waste pieces went to a social organisation based in New Delhi that made affordable sanitary napkins.

> we have a group of women who make sanitary napkins, our waste goes to making them. Once they have made them, they are bought by our workers at a nominal amount, so, this is circular. This is a very important issue in India. The women in rural India still use sand and ash and recycled cloth during their periods. So, supporting this was a very important cause because – our waste can become somebody else's product. (Owner, Personal Interview A2, 23 June 2018)

Smaller waste pieces were offered in bulk to make patchwork products and knitted fabric waste was used to make paper price tags.

> we hate fabric going to waste but it is the nature of this industry – we cannot avoid what we try to do is to minimise the waste. We have few local families who collect our fabric and produce patchwork accessories. That helps them maintain their families […] we use cloth waste recycled into paper and used as price tags on our finished garments. Every year as a goodwill gesture we give all our employees yards of fabric – so they [workers and families] can have something new to wear for Dewali. (Owner, Personal Interview A2, 23 June 2018)

Third, there was a zero-waste approach and 'upmade' manufacturing. However, this only applied to a limited selection as not all buyers were aligned with zero-waste fashion.

Upmade garment

The apparel manufacturer was one of five factories in the world that performed 'upmade' manufacturing. The innovative approach uses pre-production fabric waste to create fashion garments, essentially using waste that otherwise would end up in landfill. Innovative design methods for recycling can unlock significant opportunities for material circulation of production leftovers and associated economic benefits. According to the owner, upmade products are:

> made from waste fabric so you have multiple benefits – less production of greenhouse gases in making garments because you have got raw material that is in waste – utilising waste that otherwise would end up in the landfill. […] it is between the [brand] and us; we are not trying to be superficial we want to go deep into the industry looking what are the challenges? What is the solution that we can bring to those challenges? So, this is one of our efforts against waste. (Owner, Personal Interview A2, 3 March 2018)

What the focal supplier, A2, did was use textile leftovers, put them back into the design stage, and use the design to produce new garments. This maximised the resources, leading to savings of energy, water and other resources by avoiding production from virgin raw material.

> we are very proud that we have been chosen as one of five manufacturers in the world to have 'upmade' certification. The certification allows us as manufacturers to work more consciously and to work more closely with our

> value chain to reduce waste. […] we can not only reduce waste but also whatever waste that comes out we recycle, up cycle, or reuse in some way in our manufacturing setups. (Owner, Personal Interview A2, 3 March 2018)

According to upmade, a key challenge in sustainable textile production is that brands demand manufacturers and the suppliers to maintain sustainability, yet they are often not willing to create long-term relationships with manufacturers and to support them financially in their efforts to become more sustainable (SEI, 2019). By contrast, the first-tier supplier A1 provided significant support both financially and non-financially. According to the owner,

> our partners are a great inspiration to us I think they get the best out of us – we have a great partnership with them. They supported us from the beginning and are in it for the long-term constantly support our suppliers as well. I have no doubt we wouldn't have been in the position we are in today if not for the great partnership. (Owner, Personal Interview A2, 3 March 2018)

4.2.3.1.3 Approaches: certifications

> we have four international certifications which we are very proud to have – one is 'GOTS' which is for the organic the 'Oeko-Tex' certification then we have 'Fairtrade' which is for all social and ethical values and the rights of workers and then we got the 'upmade' certification which is about how we can reduce and reuse and up cycle the waste that is generated in our factories. (Owner, Personal Interview A2, 23 October 2017)

The organisation was 'Fairtrade'-certified, which means that they were in full commitment to the 10 fair trade principles. The World Fair Trade Organization (WFTO) standard examines every aspect of a business and confirms whether it is truly a Fairtrade enterprise. More importantly, from the research context, the WFTO verifies the entire business and its process for managing the supply chain (World Fair Trade Organization, 2018). In 2016, the organisation gained the Oeko-Tex certification, which guarantees that the fabric has been independently tested and certified to be free from substances harmful to human health.

Since 2007, the organisation has been Global Organic Textile Standard (GOTS)-certified. The certification is based on on-site inspection and quality assurance of the textile processing. According to GOTS (2017), 'organic fibre production is not directly covered under the GOTS certification it does not set standards for organic fibre

cultivation itself. Instead, cultivation of organic fibres is under the scope of the governmental organic farming standards (e.g. the EEC Organic Regulation).' The organisation is not involved with fibre production, so the internal and supply chain trade separately from cultivation. Further investigation revealed that ChetCo practices trace every cotton bale from source through a structured system of packing, labelling, and recording at every phase. The ChetCo and Fairtrade organisations' intervention along with stringent peer-to-peer monitoring structure help identify non-compliance early and take timely appropriate corrective action.

However, the sustainability of a business is not just reflected in certificates and labels, as an SME independent verification of organisational performance against ethical standards helps them compete with industry pioneers.

4.2.3.1.4 Approaches: stakeholder

It is difficult to distinguish whether the supplier A2 was self-motivated or pressured from the first-tier brand, A1, to source organic cotton. It is important to note that the downstream supplier, A1, had a strict supplier selection, which promoted focal supplier A2 to maintain sustainability in the supply chain. This is an ideal example where the motivation for sustainability overlapped. It is a balance between stakeholder pressure to take a sustainability approach, entrepreneurial influence on sustainability, and a strategic move to gain benefits from 'niche' market conditions.

Opportunity for women

The focal supplier, A2, worked towards eradicating poverty through employee skill development and sustainable job opportunities. Cultural norms and educational and financial level command that families feel that women (or girls) are a burden to them, often giving them in marriage at an early age. The focal supplier, A2, attempted to give young women financial freedom that allowed them to have a say when and with whom they would like to get married. As their income rises, it is noticeable that the entire family benefits.

> 'Women on Wings' is a group from Netherlands their mandate is to create 1 million jobs for women in India; we work with them very closely because that is a vision that we also have. We want to eradicate poverty and ensure that we provide jobs for the women. We also work very closely with 'Jobs for Youths' this is a national NGO in India they work with physically disabled women; we work with them closely because we feel that within the manufacturing sector,

> we definitely can give them skills as well as employment. (Owner, Personal Interview A2, 23 October 2017)

Supplier A2 trained and developed the skills of women over the age of 19 to give them employment opportunities. The initiative creates secure job opportunities so that women have an independent income source. The owner believed that empowering women will contribute to eradicating poverty. Currently, more than 80% of the workforce were women. The supplier, A2, planned on generating further employment for more than 1,500 women.

> We work very closely with farmers when I say farmers; we work with 270 women farmers – entire work of sowing, tilling the land and ploughing everything is done by women. We make commitment to buy cotton [from them] once a year whenever the harvest is. (Owner, Personal Interview A2, 23 October 2017)

No child labour

The focal supplier was opposed to child labour through the Fairtrade certification and stringent recruitment practices along with record keeping.

> no child labour in our entire supply chain; why I emphasise on that is because the fashion industry especially in India is very-very child labour intense. We work with smaller groups of artisans who are doing the embroidery and embellishment, which can be very exploitative area because a lot of child labour is being used in this sector; we ensure that we work with trusted group and ensure that they don't use child labour – we need to make sure they have a proper education. (Owner, Personal Interview A2, 23 October 2017)

Employee benefits schemes

Sustainable social practices attempt to minimise risks at work. The supplier A2 also ensured sustainable income after retirement and health insurance.

> we ensure that everybody has got insurance – health and security. They are signed up for pension plan so after they finish and retire, they can have some income. (Personal Interview A2, 23 October 2017)

These findings are in the same direction as those evident in the literature that SMEs are concerned with their closest stakeholders (e.g. Sen and Cowley, 2013; Madueno et al., 2016). Employees are one of the closest stakeholders to the business. SMEs

implement sustainable social practices that allow them to secure and strengthen the bonds with their employees, who are also part of the organisation.

Social initiatives for employees and all the family members organised by the focal supplier, A2, reinforced the unity with business and its employees. Evidence suggests that after a breast cancer awareness camp (for employees and family members) the supplier A2 was able to reduce absenteeism by 2%–3%. According to the owner,

> what happened is by doing this [health camp] – we did it intuitively; we did it because we wanted to be true to what we stand for but what happened here is the families felt that they are part of a bigger family – it has created some sort of loyalty. Interestingly, our 14% factory absenteeism came down to 10%–11% it is a win-win situation. (Owner, Personal Interview A2, 23 October 2017)

Fairness

The findings reveal that the organisation committed to fairness and equality. Everyone was treated with dignity and respect. The organisation had taken steps to ensure no discrimination policies were in place at the workplace and expectations of equality regardless of background, case, colour or sexual orientation were always met in the workplace. According to the owner,

> we ensure that they [workers] get fair wages – they are paid their salary through the bank accounts; they have ATM cards – we ensure that it is not only within our manufacturing unit but also within our supply chain. We are working very closely with Fairtrade to see how we could become part of a pilot program to ensure that we can work towards living wage because it is not something that can happen overnight. The process will happen over time, but brands have to come on board to make this a reality. I am working very closely with two-three brands to see how we can bring living wages into our supply chain. […] Gender equality and no discrimination might seem a very simple issue, but you know in India there are subtle social pressures like from which cast or religion you come. So, for us we are very careful, we ensure that we embrace all religions and all castes. (Owner, Personal Interview A2, 23 October 2017)

In addition,

> Address fair pay [equal pay] it is not just because it is a part of Fairtrade principle, but it is about self-respect and dignity for the woman. (Owner, Personal Interview A2, 23 October 2017)

The strong commitment by the focal supplier A2 demonstrates the importance of the relationship with the stakeholders.

Upstream–downstream suppliers

> our supply chain actually starts from the cotton farmer, finally comes to us for manufacturing; it is very important that we work together. […] we are where today because of our suppliers and without them we won't be where. Our brands know who we work with this is also very important because it gives them confidence on that we are talking about. (Owner, Personal Interview A2, 23 October 2017)

Following the first-tier supplier A1's organic cotton initiative, the second-tier supplier, A2, was required to source organic fabric from certified sub-suppliers. However, as part of the ChetCo collation the organisation had to source from coalition members and one such sub-supplier is third-tier supplier A3, now detailed below.

4.2.4 Tier 3 – Supplier/fabric (A3): brief details

Business: Fabric mill
Sector: Textiles
Established: 1934
Ownership: Private/Family
Annual Turnover: £5.2M or €5.8M
Employment: 40
Location: Kolkata, India
Production: India
Suppliers: India

Based in Kolkata, India, the fabric supplier is a pioneer in organic garment and home textile manufacturing in India, a family-owned business established in 1934 by the great-grandfather of the current owner (fourth generation). Since 2005, the focal supplier, A3, has partnered with the small-scale farmers association ChetCo to ensure that Fairtrade practices are recognised throughout the supply chain. Currently, the supplier A3 specialises in organic cotton fabric production and the company uses 100% organic cotton with Fairtrade production.

The focal third-tier fabric supplier, A3, provided more than 40% of the fabric to the manufacturer, A2. Focal supplier A3 was the single biggest fabric supplier to the second-tier supplier, A2.

4.2.4.1 Sustainability approaches

4.2.4.1.1 Approaches: raw material

Organic cotton

Organic farming methods reduce the need for chemicals, thereby limiting the health and the environmental damage. The cotton is grown without the use of any synthetic pesticides, fertilisers or defoliants. Unlike genetically modified cottonseeds, they use natural cottonseeds. Organic cotton farming reduces chemicals from going into the environment each year, which results in better health, improvements to biodiversity, and longer sustainability for the planet. The use of mixed crop rotations helps the soil health and financial benefit for the farmers. The fabric mill uses 100% organic cotton.

> We are working only with organic cotton; one of the reasons is that cotton is the most pesticide used crops – large part of the pesticides produced in the world are used for the cotton crops; you know this not only destroy the environment but also creep into the food chain through groundwater and cattle feeds. It is poison; we don't want to support this […] we have to realise some conventional methods shouldn't be used anymore; superior methods should be adopted so that we can enhance our production and achieve a clean environment and some balance. (Owner, Personal Interview A3, 5 January 2018)

Secure organic raw material sourcing is another approach adopted by focal supplier A3. This facilitates the sustainable flow of raw material and offers small local farmers a market with a fair price.

> we purchase organic cotton from the farming coalition – directly from the farmers who grow it. They know what we want, based on our demand they plan their crops, we eliminate the middlemen and work directly with them so there is lot more security for them. They benefit financially in a much bigger way. Ultimately, there is a positive trend, and more farmers are transitioning to organic cotton because they are seeing the growing demand and the fair price for it. I also think it is not just about sustainable materials; you have to think about the number of people that live off it – don't forget the supporting industries. (Owner, Personal Interview A3, 5 January 2018)

Traceability

This research finding suggests a sustainable approach to trace the suppliers. According to the owner,

> the overall idea is to be able to trace our cotton from the farm – all the way through the process in order to have full traceability of the final product from farm to yarn. (Owner, Personal Interview A3, 5 January 2018)

The process goes from growing cotton in the field to being transported to the facility from the ginning facility. It moves to a spinning facility, where it is spun into yarn from the spinning stage. It then moves to knitting in a weaving facility, which also has a dye plant, where it is dyed and finished. Once the material is sold, it is then moved to a 'cut and sew' facility (second-tier supplier, A2), where it is turned into garments.

4.2.4.1.2 Approaches: innovation

Recycled water use

Like the results found in empirical research (De Giovanni, 2012), SMEs report reducing waste through recycling activities (e.g. Battisti and Perry, 2011; Bosch and Kanis, 2013). During the production phase huge amounts of water is used to dye, finish and wash. In India alone, the textile industry uses approximately 425,000,000 gallons of water daily (Muthu, 2018) and lack of stringent regulations results in textile producers dumping wastewater directly into waterways. The contamination is often linked to devastating harm to people, livestock and the environment. The third-tier supplier, A3, uses recycled water in an attempt to address the environmental damage.

> our factories are using effluent treatment plants, recycling water, reusing water and any discharge we meet local government standards and waste disposal standards. (Owner, Personal Interview A3, 5 January 2018)

Additionally, the supplier, A3, had introduced dry dying instead of wet dying, where far less water is used.

Natural dyes

Textile dyeing releases significant amounts of colour into the environment. The dyes and chemicals that contain non-biodegradable and carcinogenic substances pose a major threat to health and the environment (Hassaan, 2016). The use of natural dyes made from organic materials and bacteria rather than chemical treatments is reportedly safer for the environment, the workers and the community (Chan, Yuen and Yeung,

2002). However, the industry is yet to find a solution to stop dyes contaminating the environment. There is no highly effective technique capable of removing both the colour and the toxic properties of the dyes released into the environment (Hassaan, 2016).

Renewable energy

Gradually, sub-supplier A3 recognised the importance of greenhouse gas emissions and shrinking natural resources; the organisation had taken steps to use waste products to generate energy.

> our dye house is using waste product to generate steam so that there is no fossil fuel, the skin of the rice is used to generate steam in the boilers – we are trying to be environmentally conscious and produce so that we don't damage the environment. (Owner, Personal Interview A3, 5 January 2018)

4.2.4.1.3 Approaches: certifications

The supplier A3 held GOTS certification. The control union audited them annually in order to maintain the standard certification for organic cotton products and processes. There were third-party auditors for the SA8000 certificate who audited the factory for certification renewal. The certification defines environmental compliance with social elements along the entire supplier network (Soilassociation.org, 2018). Moreover, the Fairtrade association audited the facilities for fair labour practices.

> Fairtrade and GOTS certification not only ensure that the manufacturing process meets the highest environmental standards also ensures the highest social standards. Making sure no contamination from the cottonseed farming practices or spinning of the fibres into yarn; it means that our materials meet the expected standards – we have full confidence in our supply chain. (Owner, Personal Interview A3, 5 January 2018)

4.2.4.1.4 Approaches: stakeholder

Job creation

Focal supplier A3 associated the business contribution with the local community and the economic viability to the society that it operates in. Job creation helped fulfil its obligation to society.

> our factories provide more than 250 direct employment with job security and income that help families survive, indirectly cotton farmers, cotton pickers,

> drivers are all get job opportunities – itself a major contribution to the society. (Personal Interview A3, 5 January 2018)

Employee benefits

In addition to wages that were higher than the national standard, workers received many allowances and premiums such as house rent allowance (5%), provident fund (12%), yearly bonus (14% of total wages), a meal subsidy, free transport, and medical insurance benefits for themselves and their families. According to the owner,

> Whether it is India, Bangladesh or China there is no respect for labour; I wanted to be a bit different that was my main motivation. It is possible to do production in the right way – so as the company grows our workers also grow. We try to maintain a very good relationship with our workers, which help us maintain a good working environment – workers can truly feel their workplace as their second home. We provide transport facilities to almost all our workers; their personal safety is a priority. We offer competitive wages and other benefits like rent allowance, bonus, school uniform and qualified nurses are brought into our facilities. (Personal Interview A3, 5 January 2018)

Employee and community

Findings suggest that, as a partner in a supplier network, supplier A3 had a share of the responsibility towards internal and external stakeholders.

> we have been in this business for generations and I can tell you that from not only an environmental but also from a humanitarian standpoint; it can be a dirty business. There is a lot of pollution in the environment due to the use of chemicals. Future generations both locally and nationally are in danger of getting sick because of pollution. As a generational mill, we are part of this; we have employees where their grandparents used to work; we have a sense of responsibility. (Owner, Personal Interview A3, 5 January 2018)

Premium purchase price

Conventional pricing and trading models that dominate the market, however, are increasingly seen as not ‘fit for purpose’ (Friedman, 2017). The focal supplier, A3, had made purchase commitments at premium price; the pricing strategy was in line with the ChetCo objectives.

> organic farming is a lengthy and difficult process; our farmers are small producers; they need to be sure that they will be able to sell their cotton fibres at a good price – by choosing to use organic cotton we help develop the

> demand and allow many more farmers to transform their lives; we are giving the farmers assurances that whatever cotton they grow we are ready to buy. So, they have a market, and we are paying them much above the market prices – we are paying them a price which is sustainable for them. (Owner, Personal Interview A3, 5 January 2018)

Besides the premium price, farmers' benefit from reduced investments as organic farmers are not required to purchase cottonseeds for every harvest and the use of natural pesticide is much cheaper. In addition, the mixed cropping and livestock creates an extra income. According to the owner,

> farmers have managed to reduce input costs by close to 50%. 5 years ago, a average farmer couldn't get income more than Rs. 9,000 to 11,000 per acre but today, they are able get close to Rs 27,000 – 25,000 they also manage to grow livestock. (Owner, Personal Interview A3, 5 January 2018)

Sustainable chain

The owner highlighted the importance of the upstream and downstream supply chain from a sustainability standpoint. Supplier development efforts with second-tier manufacturer A2 and the first-tier brand, A1, has been significant. According to the owner,

> they are our customers, they want to know where the product is being made, who is making it – It allows us to be involved in something where we can make a difference, not because somebody is telling us to do so, but because we want to do it. Working in India and dealing with countries abroad in general is difficult; being able to have the right partners in our corner is wonderful, fortunately for us we were able to do that with [second-tier supplier] through guidance [brand] and have the right vision is key to be successful. (Owner, Personal Interview A3, 5 January 2018)

Coalition with the ChetCo had helped to transform the industry:

> we all work on the agronomic practice, so the coalitions technical team educate farmers on how to reduce water when they are growing cotton; how to improve yields and how to use organic pesticides and fertilizers. They introduce the farmers to cross crop plantations program. Most of these farmers had no idea of organic farming, so they need this expertise and guidance to transform to organic farm. (Owner, Personal Interview A3, 5 January 2018)

4.3 Within-supply chain analysis

The within-case analysis process employed an open method to identify different themes for each organisation. The within-case analysis process enabled the display of data for each case study and the opportunity to familiarise with each supplier's sustainability practice.

The Scottish fashion retailer A represents numerous ethical brands. Over the last few years, the retailer has moved from traditional clothing resale towards environmentally friendly, organic and Fairtrade clothing and accessories. At first, introducing sustainability related products was not a priority. However, building a sustainability-inspired business arose through the owner's personal inclination towards sustainability and the realisation about unsustainable business practices influenced the owner to implement supplier selection practices. However, securing suppliers that work with the small independent store was a significant challenge for several key reasons: (i) supplier minimum order quantities, (ii) expected price point, (iii) lack of reliable information about suppliers, and (iv) lack of resources and capability to investigate suppliers and supplier networks. Retailer A was only able to find new sustainability driven suppliers through textile trade shows and sourcing agents. The finding confirms the understanding of the dynamic role of entrepreneurs and the leadership influence on building SSCM (Schaltegger and Wagner, 2011). Evidence suggests that the retailer A was in no position to influence existing suppliers to commit to sustainability initiatives.

During an expo event, retailer A discovered the Spanish clothing brand A1. However, the ethical brand A1 has not always operated with the same strategic direction. The brand initially relied on local production in Spain with strict European environmental and employee protection regulations. However, as the brand grew in popularity, so did the manufacturing and production process. According to the findings, the first-tier supplier, brand A1, had to rely on overseas raw material and outsource production operations. This approach created a significant setback for corporate identity; several unsustainable supplier practices left the brand with serious reputation risk. The brand ran into difficulty with inconsistencies with brand values and supplier sustainability standards. Like findings suggested by Pacheco, Dean and Payne (2010), finding reliable sustainability inspired supplier partners was a key priority. According to findings, the main challenges were: (i) encouraging the supply chain to covert to organic, relative small size of the upstream suppliers and motivating them to switch to organic and Fairtrade practices; (ii) sourcing environmentally friendly raw materials

(few alternatives were tried and tested); (iii) an uninterrupted raw material supply – as most organic farms are at near poverty levels, finding a secure supply has become a recurring challenge; (iv) a lack of expertise or skills to develop organic materials. It is important to note that the brand does not have sufficient knowledge or skills to secure SSCM. In line with Schaltegger and Wagner (2011), a lack of resources and capabilities hampers SMEs' sustainability growth. However, the entrepreneurial leadership of the owner led the brand to find new solutions.

The findings suggest the introduction of supplier selection and supplier evaluation based on internationally recognised certifications (e.g. organic certification) (Ciliberti, Baden and Harwood, 2009) and the supplier CoC to regulate supplier performance on human rights, labour rights and environmental management helped brand A1 diffuse sustainability within supplier base. However, to guarantee that the suppliers conformed to sustainability expectations, the brand A1 had to develop a verification and monitoring mechanism (i.e. supplier assessments). Parallel with the literature findings, brand A1 engaged with supplier evaluation based on (i) certifications (e.g. GOTS), (ii) internal supplier evaluation and (iii) third-party supplier auditing programmes. Third-party institutions govern standards and certifications, which often present as rational, neutral and independent. They are essential to create legitimacy for international trade (Dubbink et al., 2008). The brand A1 adopted a CoC verification through regular on-site audits, which included visual inspections, documentation reviews, and interviews with the management and workers. The brand performed frequent audits and actively tried to support suppliers in their commitment to fulfil compliance. Parallel with the literature findings on SNT, the interdependency of the supplier network is evident (Wilding et al., 2012d; Lu et al., 2018; Babbar et al., 2019). Even though, arguably, the arrangement did not improve quality or develop business responsibility, it provided a valuable tool to legitimise sustainability practices.

The criticism is that this type of certification and auditing at times can be ritualistic and superficial, mainly due to the auditor–auditee relationship, which could lead to malpractice. Boiral (2012) disputed the effectiveness of the independent auditing mechanism. These audits serve to uphold a 'facade that hides the uncertainties inherent in organisational capabilities and practices' (Boiral, 2012, p. 635). However, the brand had taken multiple steps to minimise such risks. The brand A1 implemented multiple recognised certifications, and adopted internal auditing practices, collaborative relationships, and supplier development strategies to help them protect against malpractice. Findings show evidence of the brand A1 offering advice, training and

technical support for upstream suppliers so it could manage environmental and social issues in its operations. Similar to Adenso-Diaz et al. (2012) and Creazza, Dallari and Melacini (2010), the findings highlight the collaboration and integration between suppliers for supplier development.

One of the most trusted upstream supplier partners, A2, is the second-tier supplier. As discussed earlier, A2 is a manufacturing unit that considers organisational value beyond price and quality. The supplier A2 owner strongly believed in implementing a holistic approach to sustainability within the supplier base. As evident from the interview data, the supplier A2's management adopted sustainability principles. However, like brand A1, manufacturer A2 recognised that they were unable to accomplish this in isolation.

Similar to most manufacturing operations in international markets, manufacturer A2 also faced many sustainability challenges in: (i) a fiercely competitive market obtaining global standards – international certifications, (ii) securing a skilled work force to meet demands – commitment to empower women, motivating them to develop skills, (iii) finding the right suppliers – organic dyeing plants and organic cotton farmers' play an important role. Based on the findings, the alliance with ChetCo and the two farmer-owned societies generated 360-degree support for the farmer community. The social organisation empowered farmers to take sustainability action and supported them to establish organic standards. It also provided training for developing natural pesticide control and creating non-chemical fertiliser. These engagements provided expertise, tools, and support for the actors in the supply chain to diffuse sustainability (Cheng, 2011).

The leading raw material supplier for the manufacturer A2 is the organic cotton fabric supplier, third-tier supplier A3. Upstream supplier A3 also has a vital role to play within the SSCM framework. As discussed earlier, fabric supplier A3 has been a family-owned fabric mill for decades, with generational transition of ownership. The mill converts organic raw cotton to fabrics. The mill colour-dyes the fabric to match customer requirements (i.e. for brand A1). Based on the interview findings, the main sustainability challenges are: (i) convincing traditional cotton farms to turn to organic farmers, (ii) maintaining farmer security through commitment to buy and a price premium, (iii) minimising waste and renewable energy sources, and (iv) developing skills especially on natural dying process and wastewater disposal techniques.

Further, the findings reveal that farmers in conjunction with the ChetCo fulfilled the absolute organic cotton requirements. As examination of ChetCo revealed that the coalition worked with over 25,000 small farmers across India, with the overreaching objective of empowering small-scale farmers to develop an ethical supplier network for cotton (Chetnaorganic.org.in, 2018). The organisation's multidimensional objective supported the ideology of environmental (e.g. organic) and social (e.g. Fairtrade) factors that facilitate self-sustainable enterprise through nominal non-exploitative profits (self-supporting) for the stakeholders and the farming community (Chetnaorganic.org.in, 2018).

It is important to note that Scottish retailer A was not the only customer for first-tier brand A1, nor the most significant. It is apparent that retailer A was in a supplier-dominant arm's-length relationship with first-tier supplier A1; discussion around supplier relationships is in the next sub-chapter. It is important to acknowledge that the lack of negotiating power as an individual SME makes it challenging to influence sustainability among the first-tier suppliers and subsequent sub-suppliers. By contrast, the brand A1 was the most important customer for the second-tier manufacturer, A2. It was especially significant because both partners strove towards the common sustainability goal (i.e. 100% organic). The involvement of third-tier, raw material supplier A3 is significant in the diffusion of sustainability.

The researched supplier base, second- and third-tier suppliers, declared that the price premium on organic cotton was a significant influencer for farmers to practise organic cotton farming. Additionally, unlike genetically modified cottonseeds, which have no reproductive seeds, the farmers benefit from extra income through organic seed sales. The intercropping techniques help them cultivate other vegetable corps. Interview findings suggest that there is a significant financial return for famers in adopting organic initiatives. Findings also reveal that reduced farming costs influenced farmers to change to organic farming. The third-tier supplier, A3, believed that farmers are often reluctant to undertake a sustainability path because they are not educated about the environmental benefits and the consequence of sustainability. Thus, investing resources could facilitate farmers to embark on a more sustainability path. It would be useful to have some preliminary steps in incorporating environmental aspects into supply chains and environmental practices in production processes, including those suggested in the literature, such as pollution prevention, environmental monitoring, environmental training, environmental management systems, materials recycling, or

reuse (Pigosso, Rozenfeld and McAloone, 2013; Marshall et al., 2015a; Dekoninck et al., 2016).

It is also important to note that different suppliers adopted different techniques to motivate stakeholders within separate supplier tiers; for example, the second-tier manufacturer A2 made its employees and their families feel that they were part of a bigger family, while the third-tier raw material supplier A3 relied on an employee benefit scheme. Collaborative partnerships and support from the organic coalition and the first-tier supplier continued to motivate sustainability programmes, while care for the environment, personal interest, sustaining farmer livelihood and innovation were also critical in implementing organic farming. The key factors were sustainability drivers, enablers, influencing, and verification of supplier sustainability, as illustrated in Table 4-2.

Factors	**A**	**A1**	**A2**	**A3**
Drivers and enablers of sustainability	Owner conviction Growth opportunity Social impact	Management belief Reputation Economic gain Social well-being Resources and capabilities Organisation strategy Competitive advantage	Owner values Customer pressure Social well-being Value-based network Globalised market Capabilities Strategy	Owner values Customer pressure Certifications Community focus Market opportunity Capabilities
Influencing supply chain sustainability	Supplier selection	Code of conduct Certifications Supplier development Innovation Social organisation Supply chain	Supplier development Certifications Sourcing commitment Innovation Customer pressure Supply chain	Social alliance Certifications Sourcing commitment Premium pricing Supplier development Cultural

Factors	A	A1	A2	A3
		position Organisations size and power	position Cultural responsibility	responsibility
Verification of supply chain sustainability	No evidence	Internal and third part audit Facility visits	Audit protocols Localised sourcing Facility visits	Audits Local sourcing method Expert knowledge

Table 4-2 Key factors identified in within-case analysis of case A

Overall, supply chain practices positively link to sustainability performance. The findings show that the supply chain could gain competitive advantage by developing innovative technologies and pursuing sustainability strategies that eliminate pollution or minimising emissions, effluent and waste while improving social conditions. Adopted social practices contribute to achieving a better quality of life, and safer and healthier workplaces.

4.3.1 Sustainability based on supplier selection

Supplier selection criteria like cost, price, quality, delivery time, flexibility and relationship are common across the supply chain. Cost, quality and delivery are the three main economic expectations. Flexibility seems to be an important aspect among the first three supplier tiers, while financial stability seems to be less of a priority for the retailer. Environmental and social performance remains a decisive factor in supplier selection. The literature has broadly discussed supplier selection based on ethical and green purchasing practices (e.g. Luthra et al., 2017; Alikhani, Torabi and Altay, 2019). Apart from retailer A, subsequent suppliers' environmental expectations included resource consumption, environmental management and pollution control factors. Innovation and environmentally friendly design concepts remained a considerable interest across the supplier network. The interview findings indicate that employee and stakeholder rights, health and safety, child labour and labour standards remained vital, while skill development, law and policy compliance and disclosure requirements remained a priority among downstream suppliers.

Even though retailer A appeared to be concerned about supplier sourcing practices, findings highlight a more informal approach by the retailer. The retailer primarily relied

on supplier self-declarations. The findings reveal that there were no formal supplier requirements for environmental or social sustainability management. The findings highlight that the retailer initiated some internal sustainability efforts (e.g. reducing energy usage, eco-friendly packaging and waste management practices) but there was no evidence of influencing or verification of sustainability in the supplier base.

On the other hand, the first-, second- and third-tier suppliers showed a greater emphasis on environmental and social performance. The first-tier brand A1 recognised that their initiatives in the supply chain would eventually exert a more significant impact on brand image and reputation. The findings reveal a clear formal approach to supplier selection through supplier CoC and their responsibility policy. Increasingly, recognised international standards that are widely adopted in the industry were strongly considered, for example Fairtrade, international labour standards and GOTS organic guidelines.

Similar to the first-tier supplier, second-tier supplier A2 was strongly engaged in supplier selection process. A2's supplier selection was reliant on cost, quality, innovation, delivery and sustainability aspects. Interestingly, sustainability standards were mostly requested by the first-tier supplier through supplier selection requirements that also included labour standards, fair wages, health and safety, human rights, pollution and waste management. It is evident that brand A1 had motivated supplier A2 and supplier A3 to engage in supplier selection practices. For example, dye and colour chemical management standards integrated responsibilities for upstream suppliers to minimise contamination with hazardous chemicals during the manufacturing process, caring for workers in terms of health and safety from hazardous chemicals. Certifications were commonly implemented by the suppliers that were requested by downstream (e.g. first-tier, second-tier) suppliers. Table 4-3 illustrates the key supplier selection criteria that emerged from the data.

Dimension	**A**	**A1**	**A2**	**A3**
Economic	Cost and quality Delivery Flexibility	Cost and quality Flexibility and relationship Delivery Stability	Cost and quality Flexibility and relationship Delivery Innovation	Cost and quality Relationship Delivery

Dimension	A	A1	A2	A3
Environmental	Compliance with laws Innovation Green products	Resource consumption Environmental performance Pollution control and use of hazards material Green innovation	Efficient use of resources and energy Reduce emissions Pollution and waste control Compliance with laws Green innovation	Resource consumption Environmental performance Waste control Innovation
Social	Forced labour Health and safety Child labour Fair wages	Employee rights, worker hours Health and safety Child and force labour Fair wages Laws and policy compliance Information disclosure	Employee rights Health and safety Child and force labour Fair wages Laws and policy compliance Skills development Community development	Employee rights Health and safety Child and force labour Fair wages Laws and policy compliance Local community development

Table 4-3 Supplier selection criteria for case A

As discussed earlier, the retailer relied on trust, whereas the first-tier brand and subsequent supply chain relied heavily on third-party certifications for supplier selection. It should be acknowledged that the market condition, size and power, resources and capabilities were quite different from retailer to supplier(s). Therefore, it is challenging to adopt standard sustainable procurement criteria across the supply chain.

4.3.2 Sustainability based on supplier performance assessment

Based on the agreed sustainability requirements, suppliers can be evaluated (e.g. sustainability policy and management of codes and standards) though internal and/or third-party audits. Based on the assessment outcomes, organisations can either continue to engage with the network partner or, if there is evidence of non-compliance or below-standard sustainability performance, then the issues can be addressed.

There is considerable variance of performance between the retailer and the subsequent suppliers on supplier assessment. Only cost, quality, delivery time and supplier flexibility were considered by retailer A; there was no supplier assessment against the sustainability requirements. The retailer engaged in some background research on the first-tier supplier; however, the validity of the adopted approach was questionable. The retail owner acknowledged that lack of supplier evaluation was risky but recognised that international certification provided some security. Retailer A was of the view that trust and long-term relationships with the garment suppliers could facilitate the diffusion of sustainability.

The first-tier supplier, A1, relied on supplier compliance with communicated codes and sustainability guidelines. The audit protocol facilitated the supplier evaluation and supplier performance assessment. The results suggest that improved communication is crucial to maintaining sustainability. Both new and existing upstream suppliers were aware of the sustainability expectations. This is mandatory for suppliers; any non-compliance needed to be corrected otherwise they might lose their business. Supplier A1 supported suppliers in the assessment and encouraged suppliers to be innovative in their sustainability practices.

Likewise, second-tier supplier A2 sought to provide suppliers with resources and capabilities. There was evidence of a collaborative approach with supplier A3 to manage waste, emission and labour management practices. First-tier supplier A1 also adopted audit protocols to evaluate the second-tier supplier initiatives. Again, these audits and certification mainly related to the ability of the supplier and sub-suppliers to maintain Fairtrade and organic production across the supply chain, not a certification of sustainability performance. Independently, supplier A2 implemented ISO 14001 certification to assess its environmental performance. The aim was to identify and correct suppliers' environmental issues (e.g. water usage, waste, wastewater, air emission, hazardous substances usage).

Third-tier supplier performance of cotton suppliers covered both environmental (e.g. organic, natural fibre) and social practices (e.g. Fairtrade, community development), with a focus on encouraging compliance. The key cotton suppliers were in India; the assessment of their environmental practices was fully supported by the social coalition ChetCo. For GOTS certification, the control union audited the process and maintained the standard certification for organic cotton products and processes. Social issues were evaluated during Fairtrade certification audits.

4.3.3 Sustainability based on supplier development

Hammervoll, Jensen and Beske (2012) established that supplier collaboration within a supplier network often facilitates solutions for social and environmental challenges. The results suggest that collaborative relationships can generate benefits such as knowledge sharing and capacity building that leads to competitive advantage.

Data suggest that retailer A did not pay much attention to shared sustainability efforts with first-tier or subsequent suppliers. However, the first-, second- and third-tier providers focused on sharing knowledge, partner development, training, and improving environmental and social awareness to build a SSCM framework.

Although the owner believed that unethical supplier network behaviour could affect retailers' legitimacy and credibility, the retailer had no evidence of access, understanding or knowledge to engage in supplier development. The retailer, A, was unable to allocate resources and capabilities to achieve supplier development goals. The literature suggests that resources and capabilities are an essential requirement when developing SSCM (Bowen et al., 2001). However, retailer A's supplier selection process displayed some level of delegation of duty to upstream suppliers. Evidence suggests that retailer A was redesigning its supplier base. It seems plausible that by improving the existing supplier selection approach retailer A could advance supplier sustainability. Partnering with sustainability driven suppliers would lead to sustainability improvements within the buyer organisation (Geffen and Rothenberg, 2000). Therefore, a well-managed supplier network can be a long-lasting sustainability development paradigm for retailer A. However, retailer A did not rely on a formalised supplier selection method but relied on supplier self-declarations to select sustainability driven suppliers. As previously highlighted, retailer A relied on trust and long-term supplier relationships. There was no evidence that the retailer's approach developed sustainability diffusion in the supply chain.

The first-tier brand, A1, was enthusiastic about adding a supplier selection policy to demand that second-tier suppliers exercise internationally recognised certifications. They had invested in training and development to integrate organic cotton and Fairtrade initiatives. More importantly, they were keen to share knowledge such as development in alternative raw material and communicating sustainability initiatives to second-tier A2 and sub-suppliers. First-tier brand A1 also initiated partner development through a high level of expert knowledge on product and process training. The results show that first-tier brand A1 often made factory visits to second- and third-tier suppliers to improve SSCM. The first-tier supplier, A1, exerted coercive and normative pressure through the certification and audit protocols. This strategy helped maintain suitable suppliers, thus redesigning the supply chain structure. Findings suggest that first-tier brand A1 could challenge any unsustainable business activities within the supply chain through supplier assessment.

Likewise, second-tier manufacturer A2 had taken significant steps to share knowledge with both upstream and downstream partners (e.g. organic production and upmade garment design). The second-tier manufacturer A2 demonstrated a more significant commitment to partner development through the implementation of training sessions on organic dying and skill development. Partnership with the local coalition enabled A2 to develop expertise in organic production. Second-tier manufacturer A2 maintained a collaborative partnership with local third-tier supplier A3. The results suggest that they were in regular contact with the supplier; for example, second-tier manufacturer A2 united with third-tier supplier A3 to improve the natural dying process, reduce sewage and develop environmental practices. The literature suggests that partnership approaches promote more effective deployment of the sustainability in supply chain (De Brito, Carbone and Blanquart, 2008).

The third-tier supplier, A3, in collaboration with ChetCo, and with guidance from upstream suppliers, had made significant progress towards achieving sustainability principles. Third-tier supplier A3 had managed to expand partner development through support and training to India's small-scale cotton farmers. Evidence suggests that the third-tier supplier A3 had managed to mimic the sustainability practices of second-tier manufacturer A2 to develop SSCM.

In general, supplier collaborative efforts often lead to joint problem-solving sessions, information sharing, common goals, and staff and equipment sharing (Vachon and Klassen, 2008). Co-evolving involves communication, collaboration and mutual

partnership to share critical information. Apart from the retailer A, findings suggest that the supply chain was active in co-evolving practices in subsequent suppliers' work with the suppliers to build SSCM. They recognised the need for regular meetings, communication, and standard sustainability practices; for example, the first-tier brand, A1, encouraged the second- and third-tier suppliers to pay fair wages, improve working conditions, and enhance the local community.

4.4 Supply chain study: Retailer B

Often diagrams and figures offer a much clearer picture for understanding, and Figure 4-2 is a rough supply chain structure for the second Scottish fashion retailer investigated, B.

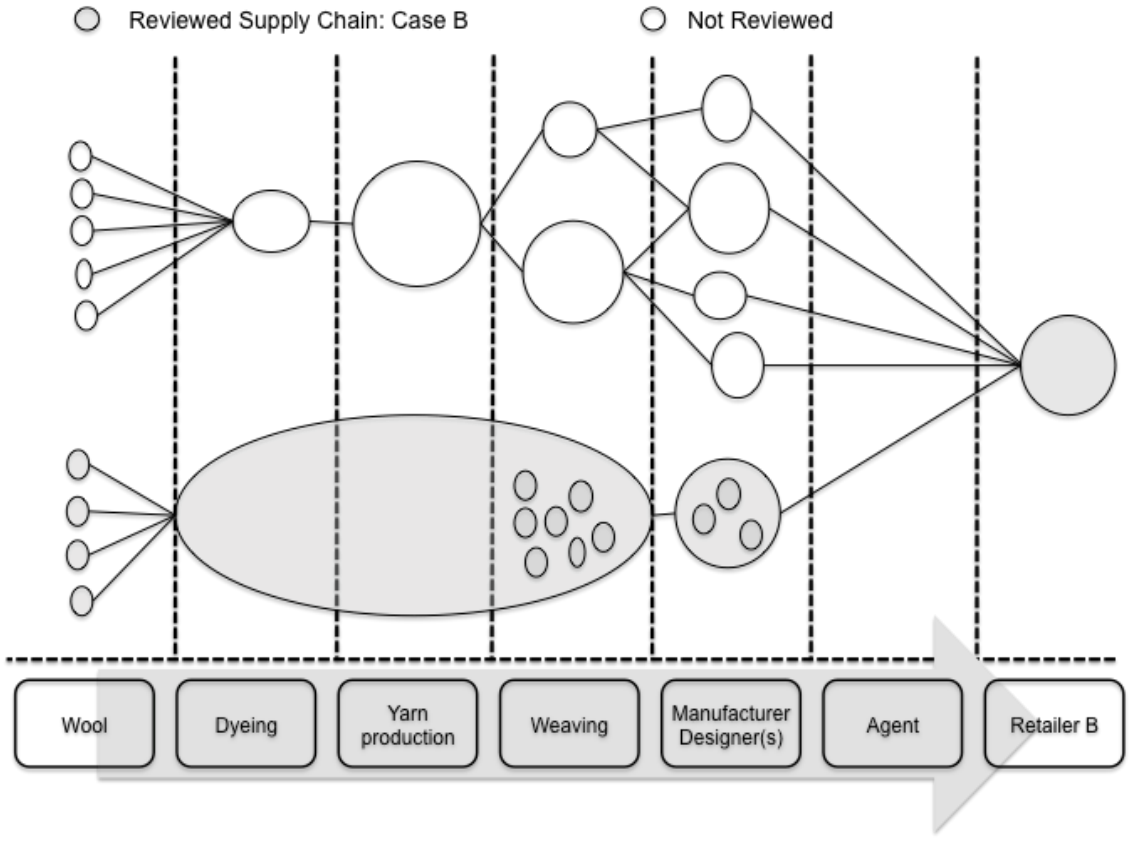

Figure 4-2 Supply chain structure of retailer B
Adapted from research work, 2017/18

Grey circles represent the investigated supply chain's supply chain actors. Although the diagram is not to an exact scale, the difference in circle size intends to illustrate the relative size of each organisation. From left to right, the crofters and small farmers are illustrated in four small circles in the wool production phase. They work independently to supply virgin wool for the local mill plant. The larger oval represents the mill, which

collects virgin wool from farmers, and processes and dyes the wool to make yarn, which is given to independent weavers. The smaller circles inside the oval represent individual home weavers in the Harris Tweed manufacturing process. The three small circles inside the larger circle in the manufacturing phase represent the cluster of self-employed freelance dressmakers (or seamstresses) recruited by the designer. The designer owns and operates an ethical apparel brand. The designer brand is one of several suppliers to retailer B.

4.4.1 Retailer – Focal retailer (B): brief details

Business: Retail online
Sector: Clothing and fashion
Established: 2014
Ownership: Family SME
Annual Turnover: £3M or €3.3M
Employees: 2 (Owners)
Location: Glasgow, Scotland
Suppliers: Over 50

Retailer B is a multiple award-winning (including retailer of the year at Scottish fashion awards) pioneer online ethical fashion platform that thrives on partnerships with carefully selected products and individual designers. Founded in 2014 in Glasgow by two Scottish entrepreneurs, retailer B sells clothing, cosmetics, accessories, footwear and interiors. The owner and the partner manage and operate the entire operation at a small office space.

According to the owner, retailer B prides itself on ethical fashion retailing:

> our vision is to bring together a collection of brands that operate ethically, we want to create an online platform to promote ethical independent designers and brands. (Owner, Personal Interview B, 19 December 2017)

Retailer B serves as an online platform for multiple brands and artisan designers to sell fashion collections. The business operates on a reasonable commission based on individual sales. Thus, merchandise sold through the online platform is owned by ethical brands and artisan designers, who create beautifully crafted fashion merchandise. Besides the online platform, this unique SME also trades through pop-up stores. Pop-up retailing is a temporary retail store offering merchandise to consumers.

The pop-up retail model is a low-cost, flexible and innovative rethink of the traditional brick-and-mortar approach to small business.

Scottish retailer B currently works with more than 50 brands and designers. Retailer B has a vendor selection process. All suppliers and brands are expected to comply with home-country employment regulations and health and safety laws. Retailer B has incorporated a general supplier sustainability requirement. According to the owners,

> all items must be manufactured ethically, no exception to the rule! […] In Europe, we have a good regulatory system this regulates our suppliers based in Europe, but we don't know anything about suppliers from other territories. We want them to be registered within their own country. (Co-owner, Personal Interview B, 19 December 2017)

4.4.1.1 Focal company: commitment

Retailer B's goal is to support sustainability development for new forthcoming brands and designers and contribute to society. The founders understood the struggles of independent brands and designers attempting to find their way in the competitive marketplace. The business foundation is based on the personal convictions of the two founders. Each supplier is selected based on existing ethical practices; they also agree to continue to be ethical through the signing of a code of ethics or CoC. According to the owner,

> ethical responsibility is an intrinsic part of what we do, we want only brands that are participating in ethical business. If you see our website each brand that we sell has a strong ethical practice. (Owner, Personal Interview B, 19 December 2017)

Ethics declaration

When brands or designers join the platform, they are asked to declare their responsibility commitment. Retailer B wanted all first-tier vendors to agree to a binding statement; as stressed by the owners, all new vendors must comply.

> submit an application form to join the platform. Every single one [supplier] must tick a box when they submit the application. They need to agree that to the best of their knowledge their products are produced ethically; we got this clause in the contract to make sure that everyone involved from the design to the manufacturing process is treated fairly […]. (Owners, Personal Interview B, 19 December 2017)

However, as discussed earlier sustainability is not just about ticking a box. Modern businesses are increasingly pressured to adopt long-term view to manage environmental and social risks, through the means of a sustainability and SSCM strategies. Business has an important role to play in addressing global sustainability issues. Generally, if an organisation attempts to achieve sustainability across its supply chain it needs to establish supplier standard and then monitor performance or compliance. Lack of such approaches discredit retailer B's sustainability efforts. When prompted about the reliability of the tick box approach:

> when brands want to partner with us, we have them apply for an ethical declaration form […] products must adhere to the current UK and EU regulations. This includes appropriate clothing labels, working standards, environmental protocols etc. The products must be designed and owned by the contracted partner. In other words, the creative talent must be the brand owner. (Co-owner, Personal Interview B, 19 December 2017)

Despite the binding statement, owners revealed that the company depends heavily on trust, particularly that the information provided by the applicant is true and accurate. According to the owners,

> it is trust, at the moment. Because they [brand/designers] are really small brands they mostly work with themselves; most of our suppliers are sole traders they mostly produce their own stuff; sometimes in their own homes and sometimes in small warehouses. […] the truth is at the moment; we have to take their word for it when they assure us. (Owners, Personal Interview B, 19 December 2017)

Retailer B's approach aligned itself with that of principal–agent trust, which diminishes the need for monitoring and verification (Shafiq et al., 2017). However, trust alone will not guarantee SSCM.

When probed about reliance on trust, one of the owners revealed,

> we just don't have the resources to validate where they get their products, we are not capable of inspecting every brand. That is just impossible for us; we have to go with [rely on] the trust. (Co-owner, Personal Interview B, 19 December 2017)

Secondary data on retailer B indicate that the majority (more than 80%) of retailer B's first-tier suppliers are start-ups venturing into the sustainability fashion paradigm. Just

like the retailer, the first-tier suppliers are incapable of allocating vast amounts of resources to implement supplier evaluation and supplier development programmes. Thus, expecting first-tier suppliers to be in possession or in the process of obtaining certifications like first-tier supplier in case A is unfair and unrealistic. This notion was highlighted many times during the interview.

> the brands that we are dealing with are tiny. (Owner, Personal Interview B, 19 December 2017)

Retailer B highlighted the importance of statuary laws and regulations. They play a fundamental part in SME sustainability.

> all of our chosen suppliers and brands are expected to work to their country's legally implemented employment regulations and comply with all related health and safety laws. We will never knowingly work with a supplier who chooses to breach their country's policies and deny their workers of basic rights. (Owner, Personal Interview B, 19 December 2017)

According to the owners, the main obstacle for sustainability development was lack of resources, such as finance, time, knowledge and skills. Nonetheless, it was evident that a handful of established brands hold sustainability-related certifications and adopt international standards.

Supplier freedom and flexibility

Adding new suppliers to the supply base is a continuous process. Retailer B did not have any legally binding contract with first-tier suppliers. They could offer merchandise in any other trade platforms and terminate the retailer–supplier arrangement at any given time. According to the owner,

> the online platform operates as a launching pad – opening for new entries, once established they have the freedom to find alternative business models. […] we encourage brands to have multiple income forms. It is important to have as many workable revenue streams as possible. Brands should never have us [retailer] as the sole income source. Never. It is too risky; we always advise to make us one of [brands] revenue streams. (Co-owner, Personal Interview B, 19 December 2017)

Findings highlight that mutual understandings between the principal and the agent made the partnership sustainable.

> some brands have been with us for a quite a few years, we let them come and go as they please; we don't hold them to anything. (Co-owner, Personal Interview B, 19 December 2017)

Retailer B represented more than 50 brands and designers of a range of different categories, backgrounds, processes and bases. Therefore, understanding each supplier requirements was essential; for example, each brand's production process and lead times differ. Most of them used their own or local production facilities, while a few established brands outsourced production operations overseas. Thus, flexibility was important.

Environmentally friendly packaging

Interview data highlights the retailer's approach to environmental performance:

> we use sustainable and environmentally friendly packaging, degradable packing bags and also concerned about possible suffocation so we use thicker bags. (Owners, Personal Interview B, 19 December 2017)

In part, the findings support the suggestion that only half of SMEs had, at least to some extent, implemented sustainability practices (Cassells and Lewis, 2011). The practices include the use of environmentally friendly designs, reusable packaging, materials that are not hazardous, and recycled materials.

Ethical launching pad

According to the interview data, focal retailer B recognised the difficultly for new brands that are trying to enter the competitive market. The founders highlighted that Scotland is not the most conducive place to launch something new as the country's infrastructure is not encouraging enough for sustainability development in fashion designers.

> most our upcoming designers go to London to establish themselves; the market setup is such that they have a better opportunity over there – the recognition and the value is much better. We need to give an opportunity to young upcoming designers, a great platform to showcase their talent and establish as world leaders […] Unfortunately, a number of our designers have left working with us as they seek the spotlight in other markets. (Owner, Personal Interview B, 19 December 2017)

Retailer B tried to provide new upcoming designers and brands the launch pad they could build on. The opportunity created by retailer B did give some security for entrepreneurs before investing heavily in infrastructure (i.e. website) that could put them at risk.

> normally when they [new designers] come out of college or university they are told everything apart from the realities of how to operate their brand. They are under the impression that they can just go through the wholesale route or if they have enough money, they could build traffic for their website; enough people would start buying from them; the reality is when you launch a brand, who cares? You have to make people care. That is a shock to everyone because a lot of the wholesale routes don't exist anymore. When you launch a website as soon as your friends and family have done their little bit of purchasing, after that, who cares. So, we [company] try to bring everything together; create an opportunity. (Co-owner, Personal Interview B, 19 December 2017)

The researcher was able to investigate the sustainability approach by one such first-tier designer, B1, an upcoming designer, who successfully launched the brand through the retailer B.

4.4.2 Tier 1 – Supplier/brand (B1): brief details

Business: Brand designer
Sector: Clothing and fashion
Established: 2014
Annual Turnover: £2.1M or €2.3M
Employees: Project-based
Location: Glasgow and Stirling, Scotland

A designer with an impressive resume and distinctive identity in the fashion industry, the first-tier designer B1 believed in 'creating identities, characters and stories through clothes.' The designer had worked with the retailer since the beginning of 2014. The designer had been able to expand the brand's collection over the previous four to five years. According to the designer, material innovation was a core design approach to the brand's success. The introduction of the 'Scottish Heritage' men's collection had allowed the designer to develop and explore new impressions. The Scottish Heritage collection only used unique Harris Tweed fabric. According to the designer,

> Heritage collection has been a revolution for the brand. I introduced the new menswear collection in 2016. Since then, the brand has made headlines in many fashion magazines. The spring and summer exclusive 'Harris Tweed' collection for men has proven to be hugely popular. I have managed to double my sales – there is a massive demand for the collection. (Designer, Personal Interview B1, 20 December 2017)

The interview data highlight that, apart from building the brand, the designer did freelance designing for numerous local and international luxury brands. The process of creating a fashion collection varies widely from designer to designer. Accordingly, the development and production of a piece of fashion for a brand are vastly different from steps taken to develop their own brand. According to the designer, as a freelance designer, they had little control over production, while launching their own brand allowed them to make their own decision at each stage.

The findings confirm the idea that smaller and newer brands have the freedom to start from scratch without the history and attention of some more prominent brands.

> I buy fabrics local – this is sustainable. I also learn about new fabrics, use science, and technology to make something new for my collections that is part of being sustainable. I use Harris Tweed a lot […]; we can trace the whole production process of it I think it is ethical […]. There are lots of different ways that I could be more sustainable in my design. I use polyester which is cheap but don't really want to use it anymore as it is not particularly sustainable. (Designer, Personal Interview B1, 20 December 2017)

The designer appeared to insert their personal values into sustainability development.

> I believe that the uniqueness comes in from the art, print, and fabric we use. I tend use more environmentally friendly materials in my designs. Recently, I did multipurpose garments designs they can be easily worn in different ways giving alternative outfits to the wearer. (Designer, Personal Interview B1, 20 December 2017)

This approach is commonly used by ethical fashion brands to extend product life and helps reduce fabric waste.

Examination of the supply chain of first-tier designer B1 revealed that their own brand's production was done mainly in-house or with a few local seamstresses, who worked

with first-tier designer B1 on a freelance basis. The designer hired them on a project basis based on the project scale and their knowledge and expertise. The approach allowed dressmakers to work from home, at times being with their families and still making a reasonable income.

The brand owner maintained a close relationship with the local seamstresses for production. According to the owner,

> if I am unable to do my own sewing. I do the pattern cut and get the sewing through local patternmakers of course, I have about 10–12 who I really trust. Most of them are designers themselves they like to be independent and earn extra cash […] I am able to talk to them [seamstress] directly. (Designer, Personal Interview B1, 20 December 2017)

As the designer indicated, local manufacturing offered the designer an advantage. It allowed the designer to visit and ensure the production processes regularly, which wouldn't have been possible with overseas manufacturers. These types of artisan designer business models are at a disadvantage because of their low capacity and leave no opportunity to negotiate with suppliers on quality, price or delivery timings. Sometimes this could affect the designer's credibility. Additionally, hiring seamstresses had its own social issues; often, due to the growing market for cheap clothing, many workers are forced to work at home for very low piece-rates. They reported working many more hours to make ends meet (Elzenbaumer and Giuliani, 2014). This type of work is characterised by the prevalence of very short-term contracts or freelance work with insecurity and uncertainty, as opposed to permanent jobs. They end up with no sick pay, no pension, no savings and no standardised rates. They also work in isolation and undertake some tasks with the need to support the family. Thus, this could be viewed as an unsustainable practice. However, McRobbie emphases that creative workers attached to an independent label are functioning as 'a means of avoiding unemployment building a sense of status and a meaningful life' (McRobbie, 2013, p. 994). On the other hand, many freelancers in developing economies choose to be self-employed because it gives them creative control and allows them to pursue what they want to do. Reports suggest that more working parents find freelance work so they have more time for their families and extra money can be significant for single parents and carers (Walker, 2020). The impact on society is that the role of small entrepreneurs supports the economy. In times of austerity, seamstresses and suppliers within the local community represent small-scale entrepreneurship that creates employment.

The findings suggest that inconsistent production quality is often highlighted as one of the key issues in adopting such an approach. A Centre for Fashion Business Research project in 2008 highlighted that one of the barriers to growth in designer fashion is the lack of availability of a highly skilled production force in the UK (Britishfashioncouncil.co.uk, 2008); while larger manufacturing organisations rely heavily on highly developed in-house training programmes to develop skilled staff, SMEs are not able to allocate such resources (Publications.parliament.uk, 2019). Nonetheless, designer talent and expertise provide opportunities for growth.

As highlighted by the designer, partnerships between designers and suppliers encourage the development of SSCM; however, success depends on a positive collaborative relationship. It is important to note that one of the distinctive features in the sector is reliance upon informal networks.

> biggest problem for me as a young designer is that it is expensive – we are at the beginning of this sustainable movement; materials cost more when you start to employ sustainable materials. So, the price point jumps; the higher price tag makes it tough to persuade our customers […] for me it about the educational process and finding the right partners and building trust. (Designer, Personal Interview B1, 20 December 2017)

Designer B1 primarily used locally made fabric; most of the designs included Harris Tweed fabric, which is bought from one of Scotland's three remaining Harris Tweed mills. This iconic tweed fabric is unique to Scotland and only produced by Scots on the islands of Lewis and Harris, the Uists, Benbecula and Barra.

4.4.2.1 Designer/brand: commitment

Ulasewicz and Vouchilas (2008) emphasised that 'designers today have to be proactive social entrepreneurs; they must be able to persuade, shift perceptions and move new sustainability concepts through the design. The new entrepreneurial revolution growing in the twenty-first century is pushing sustainability forward' (p. 19). Arguably, adopting environmental and socially responsible behaviour is a widespread anti-commercial position among fashion designers. The new creative force continues to oppose the fast fashion industry and unsustainable business practices.

Local sourcing

First-tier supplier B1 mainly sourced its raw material, including fabric, trims and accessories, from the local market. This meant that additional value is added to the local economy. The designer believed that:

> all my garments are made within the UK and all the fabric is sourced within the UK using sustainable raw materials and working with local suppliers. I believe that for me this is one of the biggest ways to improve the ethical practices in fashion. I am not saying that offshore suppliers are unsustainable but as small business we have more control if our supplier and manufacturers are local. (Designer, Personal Interview B1, 20 December 2017)

The sourcing practice supported the local community and created employment opportunities. Furthermore, it minimises transportation cost and environmental damage. However, the designer did not believe that all offshore operations were unsustainable.

> there are enough factories in China and Asia with proper working conditions. In fact, they maintain high production standards – pay fair salaries to the workers. I know everything is not rosy and merry, but everything is not bad as we hear. (Designer, Personal Interview B1, 20 December 2017)

A local sourcing and production approach ensured more control over labour conditions. The strength of strict laws and regulations in a developed economy helped to ensure that the organisation met at least the minimum requirements. Additionally, the designer believed that manufacturing locally was a vital element to maintain good communication and traceability. The literature suggests that this approach helps a brand maintain superior quality (Joy and Peña, 2017). Galliano and Orozco (2013) pointed out that businesses that embracing traceability can make suppliers more efficient and adaptable.

According to the designer, local sourcing and manufacturing gave the designer greater control over product development, sampling and material development.

> I think being closer to production is vital; you know you could do so much more being closer, there is only so much you can do with emails, being able to go visit the factory and actually get an insight […] I like to visit; I know all the women that make my clothes, I know them by name and there is emotional connection for me with the clothes that I make […] it is important to show interest and show you are involved and appreciate the work that goes into it. I

> think choosing the supplier cannot be over price alone; it must be wider. I respect that you do need to consider price. There should be an appreciation of the work the production does – willing to pay the proper price for it. (Designer, Personal Interview B1, 20 December 2017)

Similar to the literature findings, designer B1 confirmed that the social features included but were not limited to safe working conditions, fair wages, underage workers, health and safety, and society improvements (e.g. Arvidsson, Malossi and Naro, 2010; Henninger, Alevizou and Oates, 2016).

Trust

Trust acts as a factor for sustainability development and boosts confidence in responsible action.

> I advocate working with people who can trust; who you value; who you have a mutual understanding of the product and the purpose of the product. I think it's a much better way to work, building these relationships as opposed to being quite fluctuating and discarding people. (Designer, Personal Interview B1, 20 December 2017)

Trust is central to supplier and manufacturing relationships and translates into mutual end value, ultimately developing sustainability in supplier base. Carter and Jennings's study (2002) confirmed that trust facilitates better relationships with buyer and supplier. They argued that mutual relations foster sustainability behaviours. The study also found a positive relationship between buyer and supplier relationship and supplier performance. The literature suggests that trust is significant to develop specific capabilities (Gualandris and Kalchschmidt, 2015).

Collaboration, accountability and ownership

The designer viewed that close relationships with suppliers were essential for building SSCM. The findings validate the understanding in the literature that relationship building is of critical value: 'the imposition of a rule or norm cannot work unless it has been discussed and deliberated' (Rao, 2002, p. 651). Arguably, a relationship based on trust is vital to impose a common practice. Further, a 'partnership and mentoring approach of suppliers appears to be the right answer to bring about sustainability' (Rao, 2002, p. 651). The findings reveal that designer B1 works on the same understanding.

It is important to note that, according to the findings, designer B1 considered that most fashion brands ignored the value of the designer in developing sustainability, which accordingly affects the 'who made the clothing' paradigm.

> I think it should, but I am not sure how it possible as a designer to go down the supply chain. As a designer, we get isolated from the chain. As the brand takes over our design, we get removed [manufacturing]. […] They [brand] send them [design or pattern] off for production. So, as a designer, we can't expect miracles to happen within the contracted suppliers. We really don't know who makes the garments, the brand has full control over where, and who makes them. (Designer, Personal Interview B1, 20 December 2017)

Although the findings suggest a lack of control over the supplier network, the designer stressed the importance of accountability and the need to take some form of ownership for a sustainability. Unlike working for a third-party designer brand as an independent brand, designer B1 had the accountability and ownership to maintain sustainability behaviour within the supplier network.

Small batch production

Designer brand B1 used small batch quantities or made-to-order collections to minimise waste and environmental damage.

> It is shocking to discover that each year we are throwing away a million tons of clothes. We are very good in passing on to friends and family or into charity shops, but tonnes go in our bins, they go into landfill. So, we are literally putting clothes into a hole in the ground and they are worth millions of pounds each year. […] it takes a lot of resources to make those clothes in the first place. There is a huge carbon footprint in clothing; there is a big water footprint; there is a chemicals footprint and the dyes used to colour clothing are flowing straight out untreated into rivers as well. So, it is a real environmental disaster. […] high street brands over order clothes and then burning them at the end of the day which is causing a huge amount of problems and on top of all of this there is a lot of concern about the rights of the people who are making the clothes, […] there are a lot of problems in the fashion industry. [Brand] want to minimise this. I adopt a small batch production and few of the collections are made to order. I think our brand produce only the right products and right quantities. (Designer, Personal Interview B1, 20 December 2017)

Second life and durability

Consumers have shifted towards the idea that clothes are just made to be thrown away (no durability), which increases clothing waste. Furthermore, most fast fashion items are not made with durability and have no second-hand value. With this in mind, the designer took the step to increase product longevity.

> we have to do something so the volume of clothes does not consume our whole existence. We want our products to be something that the consumer falls in love with. I don't encourage customers to over buy or over consume. I use the high-quality raw material; the workmanship goes into making our garments are good they are durable, increase the longevity, in return reduces the footprint. We also offer free repair services for a year. (Designer, Personal Interview B1, 20 December 2017)

Exploring design-led approaches to extending the longevity of garments, use a variety of multifunctional or incremental garment construction (Gwilt, 2020).

Heritage collection

In 2016, designer B1 launched a men's clothing collection with high-quality hand-woven yarn. The designer emphasised the exceptional durability as well as its timeless style: the 'Harris Tweed'-inspired collection is the perfect choice for the fashion-conscious gentleman. In a conscious effort to revive the once declining Scottish textile industry, the designer brand B1 promoted Harris Tweed, the only fabric in the world governed by an Act of Parliament. Scotland's Harris Tweed fabric is a guarantee of the highest quality as part of the brand's Heritage collection.

According to designer B1, Harris Tweed fabric is hardwearing fabric that often lasts the lifetime of the wearer. Designer B1 elaborated that the fabric's reputation rests with originality, durability and quality. The manifestation of the quality is exercised through the orb mark, which is stamped on all certified Harris Tweed textiles. Therefore, the stamping is the one and only mark of authenticity for Harris Tweed. Failure to meet the quality standard set by the Harris Tweed Authority (HTA) means that the cloth is not Harris Tweed.

Designer B1 maintained that, besides the aesthetic value, Harris Tweed textiles are unique. The dye, the wool blend and the different yarn colours are interesting. From a sustainability standpoint, the low-impact production and reliance on natural materials make the Harris Tweed fabric a relatively environmentally friendly (or sustainability)

textile. Of course, while the sheep farming, crofting and dyeing process is often severely criticised for being unsustainable, biodegradable and energy-efficient production makes it one of the more sustainable materials. Harris Tweed fabrics are yarn made entirely from 100% pure wool following Harris Tweed standards.

> as small designers with small brand it is our chance to be unique because it is difficult to compete with the bigger brands, they produce thousands of pieces at an astonishing price point we have to find our uniqueness and sell that uniqueness […] usually with great originality, quality, and tradition. (Designer, Personal Interview B1, 20 December 2017)

According to first-tier brand designer B1, all the fabric for the Heritage collection is through one of the three authorised mills producing Harris Tweed fabric, whereas the brand's other fabric comes from a variety of fabric suppliers, which include local fabric weavers, importers and wholesalers. However, under use of design for disassembly that involves designing a garment that can be easily disassembled and recycled at the end of its life can be considered unsustainable approach (Gwilt, 2020).

It is important to note that more than 60% of 2017/18 turnover was through sales in the Heritage collection. The researcher was able to utilise the brand owner as a gatekeeper to gain access to second-tier manufacturer B2.

4.4.3 Tier 2 – Supplier/manufacturer (B2): brief details

Business: Textile mill
Sector: Textile manufacturing
Established: Undisclosed (due to privacy)
Turnover: £12.5M or €13.9M
Employees: 35
Location: Outer Hebrides, Scotland

The information comes from one of three remaining 'homes' of Harris Tweed craft mills in the world that produces the famous Harris Tweed fabric. This is one of Scotland's traditional hand-woven crafts, practised by generations of craftsmen to make attractive textile designs. Weaving industry is a highly labour incentive process. Participating islanders weave Harris Tweed fabric in Scotland's Outer Hebrides. It is an environmentally friendly and low-energy-driven industry. Recently, this unique Scottish manufacturing industry has managed to develop significant demand due to its culture,

heritage and design capabilities (The National Plan for Scotland's Islands – gov.scot, 2020).

Founded in the late 1800s, the mill produces fabric from pure virgin wool, dyes the wool, and spins and finishes it at the mill. The tweed needs to adhere to strict specifications. An inspector from the HTA checks the fabric before stamping the distinctive orb trademark that safeguards and guarantees the authenticity and traceability of the Tweed. The HTA is an integral part of the manufacturing industry. According to the operations manager of supplier B2,

> the organisation has a huge responsibility to hold and keep the tradition safe for future generations in the way it was there for me […], the passing of the 1993 Act of parliament superseded the Harris Tweed Association formed in 1909. The Harris Tweed Association introduced a system whereby the tweed is inspected and if passed, given a certifying stamp, which would provide confidence of authenticity. The new statutory body Harris Tweed Association ensures the grant of a new trademark. You must have noticed the Orb and Maltese Cross with the words Harris Tweed underneath. […] the authority was formed, and its role is to protect and promote this industry and trust. (Operations manager, Personal Interview B2, 12 April 2018)

The tweed industry continues to evolve while preserving its heritage, land of origin, people, culture, tradition and human spirit. According to the HTA,

> tweed must be hand-woven by the islanders at their home in the Outer Hebrides and made from pure virgin wool dyed and spun in the Outer Hebrides. (Harris Tweed Authority, 2018)

Thus, except for the weaving, almost every process in the tweed production is done at the mill. As governed by the Act of Parliament, fabric is woven by hand in the cottages of participating islanders. Figure 4-3 depicts the Harris Tweed production process.

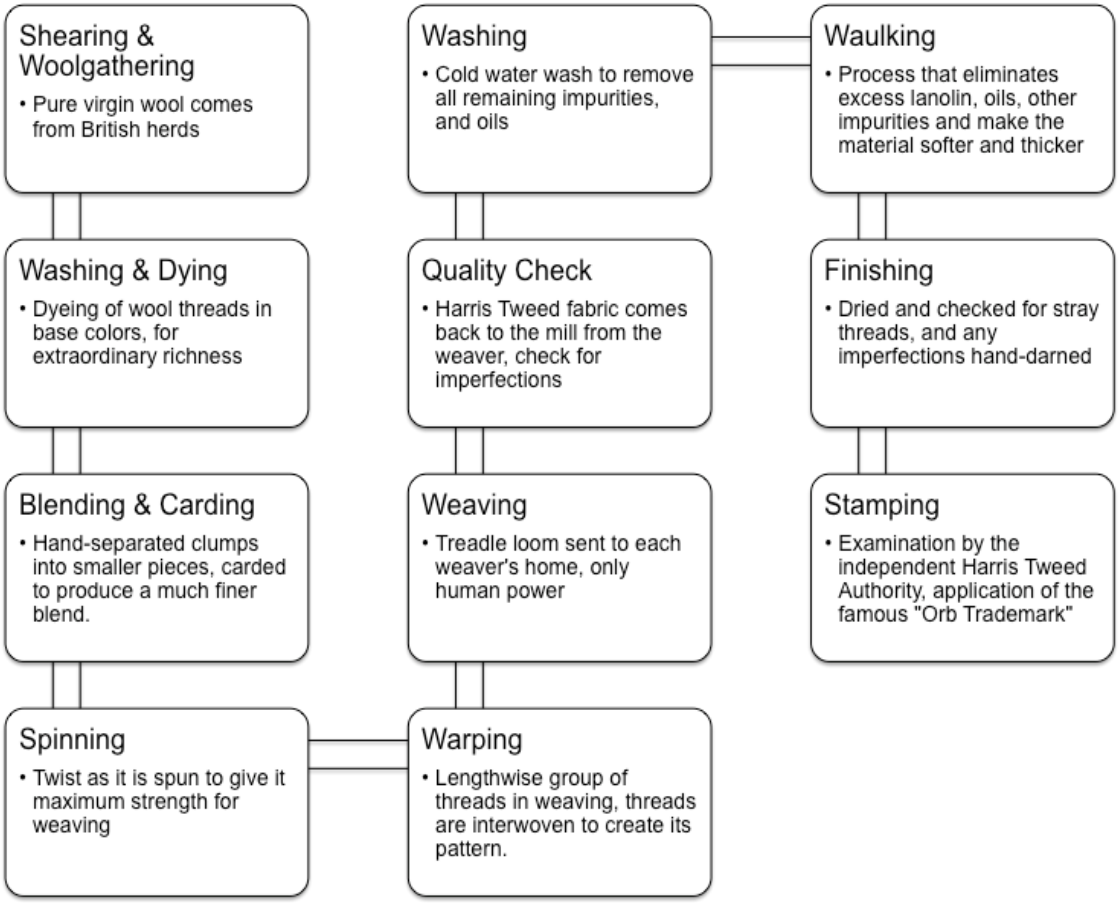

Figure 4-3 Harris Tweed shearing to stamping process
Adopted from Harris Tweed Authority (2018)

According to the industry reports, one of the main challenges for Harris Tweed is its perception as an older person's fabric (Chanin, 2020). Failure to adapt to changing needs has been key to the decline.

> one was undoubtedly was the move away from natural fabrics towards synthetics. In addition, the number of mills at that time I think probably you know quite common in this industry that they were more interested in fighting with each other than seeing the world changing around them between these two factors the North American market was virtually wiped out within a very short space of time and that was the beginning of a decline in the Harris Tweed industry. (Operations manager, Personal Interview B2, 12 April 2018)

Recently, tweed industries' attempt to attract the mindset of the younger generation – for example, small-scale projects with Nike and Jaggy Nettle – have proved to be successful (Kean-Kim, 2015). The collaboration with Johnnie Walker to produce textiles infused with a whisky smell created the 'fabric of flavour'. In this innovative development by Heriot-Watt University, whisky scents are layered into the cloth (Lloyd

et al., 2015). Reports highlight other approaches such as increasing the range of fibres and the introduction of lighter and colourful tweeds (Kean-Kim, 2015; Anderson, 2019).

According to the findings, innovation must find a balance between the selection of yarn, the manufacturing process of the cloth and maintaining the heritage and tradition. As Harris Tweed textiles are part of the island's tradition, heritage and culture, all processes in the making of the cloth need to be undertaken on the island. Moreover, it should always be woven on the weaver's premises and not in a factory. According to the HTA, 'innovative approaches are up for consideration except that cloth must be woven in the home of a weaver' (Harris Tweed Authority, 2018).

> for people of these islands; it is greatly more than another industry or a job or a cloth it is part of the whole heritage and culture and it is arguably in the veins of these people who live in island. (Operations manager, Personal Interview B2, 12 April 2018)

Recently, the mill introduced a new fabric, ideal for the modern consumer, that deals with environmental pollution, climate change and zero-waste fashion design (Serdari, 2018). However, the essential feature is that the textiles should only be woven by human labour and not on an electrically powered loom; the cloth must always be a result of 'the sweat of the weaver'.

4.4.3.1 Harris Tweed: commitment

Local weaving

According to findings, there are two main weaving groups: (i) mill-driven weavers and (ii) independent weavers. In the mill-driven approach, local weavers work for the mill to produce the fabric, while the weaver-driven method is associated with independent weavers. Therefore, in the mill-driven approach the mill creates the textile design that is woven by the participating weavers.

> the mill and indeed the Harris Tweed Authority and the weavers are all dependent on each other, we need the weavers to weave the fabric and indeed the weavers need us to provide them with well carded well spun yarn […] (Operations manager, Personal Interview B1, 12 April 2018)

Cloth designs are warped at the mill facility. The necessary weft (twisted) yarn quantities are sent to the local weavers with specific pattern instructions for fabric production. As depicted in Figure 4-3, the mill sends the yarn to the weaver. The

weavers are responsible for laying the loom as per the specified pattern. Mill-related weavers are not involved in designing the cloth. They only supply the skills to weave the cloth. The weavers follow the pattern instructions to create the cloth. The finished cloth is transferred to the mill for checking, washing and finishing. The HTA inspects for standards and quality. Upon approval, the cloth is stamped with the customary orb logo. The stamp authenticates the 'Harris Tweed' certification. The cloth is ready to be dispatched to the customer. As per the Act of Parliament, the weaving must be done by the locals within the region. Therefore, the process takes place within a single community. According to the findings, the HTA reinforces the trademark and protects the 'orb' that classifies it as authentic.

> there is a strict definition in law. Harris Tweed must be hand-woven at the home of the weaver from 100% pure nubile, the yarn used in the production of Harris Tweed must also be entirely made in the island […] while the act is a lengthy legal document it boils down to four key points that every aspect of the production of this cloth must be done on these islands by weaver by hand from 100% pure wool, It is Harris Tweed Authority role is to ensure that is the case. (Operations manager, Personal Interview B2, 12 April 2018)

On the other hand, independent weavers manufacture their own designs and patterns, which can be sold directly to customers. Some weavers promote their products using multiple social media outlets, while others adopt old fashion weaving sheds for sales. In this approach, weavers are totally responsible for the design, use of colours, and patterns. Traditionally, they purchase yarn from a mill. Weavers give guidelines to the mill; the mill undertakes the project to warp up and transfer the warp beam to the weaver. The weaver weaves the cloth based on his or her designs. Upon completion it is transferred back to the mill for final washing, finishing and inspection. It is the weaver's responsibility to pay the HTA for certifying and stamping the orb logo. Finally, the certified clothes are transferred back for sale. The HTA does not allow more than two looms working at the same time in each weaving shed. Accordingly, if this happens, the cloth will not be certified as Harris Tweed. According to previous data, this is to prevent mass on-site factory production of the cloth (Harris Tweed Authority, 2018).

What is unique with Harris Tweed for the artisan weavers is that the tweed weaving is more a way of life that tends to be handed down from generation to generation. The integrity, distinctive character and worldwide reputation of Harris Tweed must be maintained. The age-old cottage industry allows self-employment to the weavers.

Harris Tweed provides a major source of employment for the islanders. They can establish their work schedule. In addition to the economic benefits, Harris Tweed has always been at the heart of the community and island life in the Outer Hebrides, particularly on Harris and Lewis, where most of the weaving takes place (Kean-Kim, 2015; Glover, 2019). The manufacturing process builds on quality, traditions and local community. According to the manager,

> our traditions are integral to the quality of the product but like any other industry we want to be better. You know we want to make patterns that appeal to a world market involve ourselves in accessories and the luxury market where we should be – we are always looking to make the perfect product. We respect this provenance that we have and this uniqueness whereby the landscape, the people, and indeed the Harris Tweed industry act as one. There is a word in gallic for this called 'dual cos' which literally means always together respecting the landscape and the environment at the same time – a community spirit. (Operations manager, Personal Interview B2, 12 April 2018)

Efforts to go back to using natural dyes

The main inspiration for the design and colours of Harris Tweed fabric are directly from the surrounding environment. According to the manager,

> the colours we use are inspired by the landscapes, it is the changing seasons you know from the earthy browns and greens of the autumn all the way through to the […] colours when the summer flowers begin to bloom in June if you look at the colour palette a unique original colour palette of Harris Tweed it represents these different colours everything is really inspired by the landscape truly speaking from the land comes the cloth. (Operations manager, Personal Interview B2, 12 April 2018)

Once known for using local natural dyes, these have been replaced with non-toxic dyes, although it is disappointing that Harris Tweed no longer uses natural dyes for their modern cloth production. Reports suggest that one of the mills in the island uses natural dyers from the neighbouring Isle of Skye. This effort can help recreate a local resilient textile economy and offer alternatives to the unsustainable global textile production that has threatened traditional Scottish cloths almost to extinction and critically damaged the health of the biosphere. Undoubtedly the efforts will promote regenerative agriculture that captures carbon from the air and back into the soil while replenishing soil health. The project plans to recreate the ability to dye textiles using plant-based dyes, and to promote biological textiles that are safer to use, which are

safer to back into the earth. The innovative approach could bring the traditional artisan textile colouring process back into the local economy. However, the true sustainability of the entire dyeing process is beyond this research project. This research will consider use of natural dye to be a relatively environmentally friendly practice.

Environmental contribution

The looms used by the weavers are treadle machines, meaning no electric-powered looms are used whatsoever and everything is produced by hand. The weaving process remains one of the most environmentally friendly operations.

However, the dying, finishing and drying process adopts high energy consumption. The findings suggest that the industry is in the process of adapting to changing needs. The mill is working with nanotechnology and to integrate new technology into traditional approaches to construct new variations. The industry experts suggest that tweed provides an exceptional matrix to build on technology. Unfortunately, the researcher was unable to find clear evidence of environmental protection practices adopted by the mill.

4.4.3.2 Supply chain

Local crofters and weavers

The Scottish crofting process continues to be a unique social structure where small-scale wool producers are intertwined with the surrounding environment.

> almost every household is involved in harnessing the Tweed industry in one way or the other and that is undoubtedly what kept the place going through the hard times. (Operations manager, Personal Interview B2, 12 April 2018)

Arguably, the industry enriches the natural environment, the heritage, the culture, and the islands' social economy. From a societal standpoint, they sustain marginal and fragile rural populations. More importantly, they represent the principles of sustainability, diversification, cooperation, entrepreneurialism and community, where the people share a vision that benefit the common good. It has a vital role in the agricultural, social, environmental and economic aspects of Scottish rural development and is central to sustaining communities in remote and peripheral areas (Crofting.org, 2019). Throughout the centuries, two main sheep breeds have provided wool for Scotland's cloth production (Scottish 'blackface' and the 'long-faced or white-faced' breeds, known today as the 'cheviot' sheep). The crofters on the island are involved in

breeding, shearing and wool gathering. The whole process continues to promote a sustainability within local economy.

Governance

Harris Tweed is a registered certification mark awarded by the custodian of the Harris Tweed brand, or the HTA. Traceability is essential to the HTA: the end customer must be able to identify the maker or source of the purchase (HTA, 2018). Every piece of genuine cloth is checked and certified by the HTA and stamped to verify its provenance and quality. Strict control is carried through brand guidelines, label policy and brand use (reuse of Harris Tweed cloth) rules governed by HTA. The stamp of approval and the governance process maintain the authenticity, the standard and the reputation of Harris Tweed from farm to the end-user.

4.5 Within-supply chain analysis

The case data integrate the sample retailer and their supply chain, including interview findings and supporting data from secondary sources. The approach contributes to a structured chain of evidence to ensure construct validity (Yin, 2009) and allows data to be compared in convergent lines of inquiry (Patton, 2002).

Retailer B has established an online platform for ethical conscious shoppers. The platform promote sustainability is inspired small luxury brands and fashion designers. The retail platform allows upcoming ethical fashion brands to launch their collections without investing heavily in infrastructure so that brands can focus on building their value. Although retailer B upheld an ethical sourcing commitment, the researcher could not find evidence of a proper structure or process for supplier selection, supplier performance evaluation to verify supplier sustainability or supplier development initiatives.

The only evidence was the initial supplier declaration. The declaration is designed to include compliance with applicable laws and regulations relating to the product and process and conformance to retailer B's ethical policy. It is the first-tier suppliers (or brand's) responsibility to ensure the implementation of appropriate sustainability practices. There is no evidence of influence by retailer B that goes beyond legal compliance, adapting internationally recognised standards or certification to advance supplier sustainability. There was no evidence of the implementation of formalised sustainability requirements communicated with first-tier suppliers or beyond. Retailer B

expected to work together with first-tier suppliers based on trust. Trust has been a necessary prerequisite that can improve sustainability performance.

There is always the likelihood that suppliers will misinform or in some other way fail to disclose unsustainable behaviours, thus causing long-term reputational damage to retailer B. This can be minimised through (i) developing information and assessment based on one actor's pay-off for trust exceeding that of the option to distrust, to promote trust; i.e. the pay-off for trust is above the pay-off for being dishonest; (ii) the concept of 'routine' underlining that actors can only trust each other if they are familiar with one another. However, routine alone cannot justify trust. On the other hand, (iii) trust can be seen as a reflexive process, built up step by step through concrete repeated interactions over a certain period, evaluating and mutually learning from each other that they have built each other's trust through communication.

As an independent brand owner, designer B1 believes in local sourcing, accountability and ownership as a basis for sustainability practices. Especially as a small artisanal brand, designer B1 focused on creating ethical value with product quality. Designer B1's approach to sustainability was to increase product longevity and durability that helps long-term sustainability. Sourcing and producing locally has given greater control and flexibility. Brand B1 used small batch production and relied on in-house (i.e. studio or workshop) and local seamstresses to minimise waste and reduce overproduction. Brand B1 created slow fashion that maximises the value of local production and local process and their initiatives to extend the life of fashion, which reduces the amount of waste. As discussed earlier, employing freelance local seamstresses had its operational issues such as quality and deadlines and social issues relating to low piece-rate, labour rights and insecurity. The adopted approach provides the designer brand with its character. However, holistically, brand B1 contributed to the local economy by creating job opportunities. Designer brand B1 lacked a proper mechanism for supplier selection, supplier evaluation or supplier development. There was no evidence of brand B1 having measures to diffuse supplier sustainability.

Brand B1 sourced most of its material from one of the Harris Tweed mills, the second-tier manufacturer B2. As discussed earlier, the Act of Parliament governed the age-old cottage cloth industry. Governed by the HTA, the second-tier mill B2 operated on a legislative guideline for creating fabric. Local traditional methods were used, which created employment opportunities for the local community. Use of low-energy-

consumption methods contributed to helping sustainability causes. Industry efforts to utilise natural dye can be viewed as an innovative sustainability move.

The findings reveal key sustainability drivers and enablers and factors contributing to influencing and verification of sustainability within the supply chain (see Table 4-4).

Factors	**B**	**B1**	**B2**
Drivers and enablers of sustainability	Owner or management value Market opportunity Customer expectation	Competitive advantage Management belief Reputation Local regulation Economic gain Social well-being	Organisation strategy Regulation Social well-being Competitive market Capabilities
Influencing supply chain sustainability	Supplier declaration Regulatory requirements Supply chain position	Innovation Localised sourcing and production Product design Communication	Certification Innovation Customer pressure Cultural responsibility
Verification of supply chain sustainability	Trust	Facility visits Supplier selection Collaboration	HTA protocols Sourcing method

Table 4-4 Key factors identified in within-case analysis of case B

4.5.1 Sustainability based on supplier selection

Retailer B is mostly concerned with the quality, delivery time and flexibility with its suppliers. The findings reveal that retailer B had no formalised approach to improve supplier selection and there was no evidence of a specific document for supplier sustainability, only sustainability self-declarations. Self-declarations do not guarantee vendor sustainability or provide sustainability practices but present prerequisite vendor

behaviour. There was no evidence that the retailer was taking steps to develop sustainability in the supply chain through supplier evaluation, shared objectives, collaborative approaches or the diffusion of sustainability practices. There was no evidence of any assessment of labour and human rights conditions and environmental management initiatives at supplier facilities. On the other hand, however, retailer B used the supplier declaration to uphold compliance with the statutory environmental and labour regulations (e.g. minimum wages, forced labour, child labour, equality and non-discrimination).

The first-tier brand, B1, had taken internal measures to manage environmental and social dimensions. However, there was no formal policy or principle for supplier selection. The owner's conviction on environmental performance was influential in designing a sourcing strategy that relied on local suppliers and local production to protect sustainability. Supplier selection mainly related to the material origin, durability and environmental aspects. The findings also suggest that brand B1 considered supplier relationships, communication and production methods to be significant in building sustainability in the supplier base. Unlike retailer B, there was no evidence that brand B1 upheld compliance with statutory environmental and labour regulations. However, the local sourcing and production strategy suggested that suppliers operated under strict regulatory measures. The investigated fabric supplier B2 was governed by product and process policies covering quality, standard, human rights, safety and environmental aspects.

The second-tier supplier B2 as a buying organisation had developed a unique link with the community. As discussed earlier, the Harris Tweed product and production process is governed by Act of Parliament. The formal approach, from harvesting the material to producing the fabric, ensures that it meets the required standard. The traditional manufacturing process in conjunction with innovative material designs ensures a sustainable environment. Table 4-5 shows the supplier selection themes that emerged from the interviews.

Dimension	**B**	**B1**	**B2**
Economic	Quality	Quality	Quality
	Delivery	Cost	Delivery
	Flexibility	Flexibility	Flexibility
		Relationship	Relationship

Dimension	B	B1	B2
Environment	Ethical design Green products	Resource consumption Green design Innovation	Environmental management Pollution control
Social	Employee rights Health and safety Child and force labour Fair wages	Employee rights Fair pay Health and safety Child and force labour Law and policy compliance Skills development	Health and safety Child and force labour Law and policy compliance Skills development Local community development

Table 4-5 Supplier section criteria for case B

The focal supply chain B operated within national boundaries. Statutory UK laws and enforcement prevented these organisations from significant environmental and social abuses.

4.5.2 Sustainability based on supplier performance assessment

Retailer B aimed to hold suppliers to comply with the self-declaration; however, there was no mechanism to evaluate suppliers. Likewise, brand B1 had no identified approach to assess supplier sustainability performance. However, both firms sought to maintain compliance with the statutory environmental and labour regulations that allowed them to identify supplier issues and enforce corrective measures through discussions and capacity building.

On the other hand, owing to the nature of second-tier supplier B2, it could maintain established standards throughout the upstream supplier base, as the governing body HTA monitored and verified supplier productions. In addition, compliance with local environmental and labour regulations ensured best practices.

4.5.3 Sustainability based on supplier development

The focal supply chain is in a unique position to use knowledge management, partner development, co-evolution, supplier reconceptualisation, and reflexive control capability to develop SSCM. However, retailer B showed no evidence of access, understanding

or knowledge of the supplier network. Evidence suggests that retailer B was unable to share resources and capabilities to engage in vendor development. Although the retail owner(s) believed that unethical vendor action could damage the organisation's reputation and image, retailer B lacked expert knowledge and resources to develop sustainability in the supply chain or initiate such action. Retailer B did rely on supplier self-declaration but not supplier sustainability development.

Unlike the first-tier supplier, A1, first-tier supplier B1 showed no evidence of sustainability knowledge sharing. The findings suggest that owing to a lack of resources and the relative size of the business it is difficult to develop SSCM. However, the first-tier brand B1 was able to initiate partner development through product and design knowledge. The findings reveal that the first-tier brand, B1, often visited production facilities but was not able to make an impact on sustainability goals. The brand mostly worked independently or engaged with independent self-employed seamstresses. The seamstresses were selected based on expert knowledge, quality of work and trust.

B1 had good communication with second-tier supplier B2 but this was not translated into developing sustainability. The second-tier supplier B2 was in a unique position, with superior expertise in fabric development. The organisation showed progress towards sustainable development through natural dye and local production methods. Government certification ensured certainty that the fabric and the process met accepted standards.

Second-tier fabric supplier B2 had made progress in maintaining a sustainability platform and local weavers were given the right tools and expertise for production. However, the organisation was in no position to reconceptualise the upstream supply chain.

4.6 Supply chain cross-case analysis

According to Yin (2009), synthesis occurs when data from individual cases are structured into a uniform framework for comparison, pattern creation, and forming conclusions. Cross-case analysis expands research findings and helps group sustainability practices using identified themes. Analysis of sustainability practices in conjunction with the influencing and verification factors affecting the implementation of sustainability in supply chains based on supplier selection, performance assessment and development gives new insight. Having identified a range of themes in each case,

the themes were grouped. This process allowed themes to be interrelated and aligned with the literature review findings and analyses through theoretical lenses.

4.6.1 Internal sustainability

The case study reflects each organisation's individual approach to sustainability and supplier diffusion of sustainability. The SMEs examined recognised the three sustainability dimensions but applied different levels of priority to each dimension, resulting in different sustainability intensity.

Overall, supply chain A applied stronger importance to their environmental and social performance, suggesting that a more holistic approach is achievable. Brand A1 explicitly supported community development and addressed environmental issues, making sustainability a key focus. The position of the brand A1 contrasted with the literature finding that suggests most SMEs operated with a weak form of sustainability based on financial performance and quick wins based on easy-to-green processes (Preuss, 2005a; Vachon and Klassen, 2006; Ashby, Leat and Hudson-Smith, 2012).

However, both retailers (A and B) operated at a more security level (Seager, 2008), i.e. focusing on business longevity. It is a characteristic of SMEs that profit is usually not the key driver of a business (Simpson, 2018), with retailers pursuing profit-satisfactory strategies that just allow them to stay in business (Fitjar, 2011).

The uncertainty around the definition of sustainability reflected in literature does not present a barrier to sustainability practice within the studied SMEs. Owners applied their own definition and understanding of sustainability that is greatly informed by personal values and beliefs. These led to specific internal sustainability practices.

4.6.2 Sustainability in supply chain

The retailers A and B showed a limited sustainability in supply chain commitment, while the brand A1, the second-tier supplier A2 and subsequent suppliers tried to maintain a close balance of the three sustainability dimensions.

Findings from brand A1 and suppliers A2 and A3 suggest a better balance of the three dimensions, suggesting that SMEs can provide valuable insights for developing SSCM. Brand A1's responsibility was strongly embedded in their products and process. Brand A1 used organic raw materials, which were fully certified to enable product and process

transparency, and suppliers A2 and A3 were explicit in their use of natural environmentally friendly components (e.g. dyeing, wastewater). Upstream suppliers also indicated a commitment to social responsibility within supply chains (e.g. worker rights, child labour).

4.6.2.1 Supply chain practices in supplier selection

The literature often raises the question whether social sustainability expectations are a suitable business goal (Schaefer, 2004). The findings suggest that it is not just relevant but often forms the underlining principle for balancing sustainability. Social commitment is central to most suppliers. They adopt a business model based on community support, irradicating poverty and supporting women. The supply chain acknowledges the importance of the 'people' dimension in their principles. This suggests that the social dimension should be embedded in rather than an explicit goal or goal that may or may not be achieved.

However, brand B1 and the second-tier supplier B2 showed a stronger commitment to environmental principles than to social principles. Brand B1's environmental responsibility was strongly rooted in their products and processes. UK-based local sourcing and manufacturing with stronger environmental legislation may have contributed to such an approach. Supply chain B showed some marginal emphasis on social benefit (e.g. changing lives) in supply chains through sustainability commitments and practices, while supply chain A seemed to contribute to both local and global charities and was engaged with local community initiatives, comparable to findings from the reviewed literature (Spence, Schmidpeter and Habisch, 2003).

None of the cases skewed directly towards maintaining only economic performance, which the literature recognises as the dominant focus in traditional business models (Pagell and Wu, 2009). While financial benefits were acknowledged, they did not take priority. The cases reflect a lesser priority on profits within SMEs, with all the organisations within the supply chain achieving a satisfactory income. The findings align with the literature, which recognises that SMEs pursue profit-satisfying strategies that just enable them to stay in business (Fitjar, 2011). The results did not explicitly discuss sustainability in terms of business strategy; however, they are built into their practices.

Retailer SMEs do not have a formal approach to implement the sustainability paradigm beyond organisational boundaries. The only evident practice has been the supplier selection strategy. The evidence suggests that both retailers were unable to identify suppliers beyond first-tier suppliers. Retailer B showed that the self-declaration and threat of de-listing (sanction) could pressure first-tier suppliers to act responsibly. However, the nature of retailer B shows that it was in a better position to influence first-tier suppliers than retailer A was. As discussed earlier, the supplier network for retailer B consisted mostly of upcoming brands and designers who depended on retailer B to establish/launch their brand identity. Table 4-6 illustrates supplier section practices.

Supplier Selection Practices	**Supply chain**						
	A	**A1**	**A2**	**A3**	**B**	**B1**	**B2**
Environmental management	N	Y	Y	Y	N	Y	Y
Compliance with environmental regulations	N	Y	Y	Y	N	Y	Y
Environmental aspects assessment	N	Y	Y	N	N	N	N
Water management	N	Y	Y	N	N	Y	Y
Environmental performance measurement	N	Y	Y	Y	N	N	N
Efficient use of resources	N	Y	Y	N	N	Y	Y
Wastewater treatment system	N	Y	Y	Y	N	N	N
Energy management and climate protection	N	Y	N	N	N	N	N
Waste management	N	Y	Y	N	N	Y	Y
Pollution control	N	Y	N	N	N	Y	Y
Emission	N	Y	Y	Y	N	N	N
Chemical management	N	Y	Y	Y	N	Y	N
Conservation of natural habitats and ecosystems	N	Y	Y	Y	N	Y	Y
Soil and crop management	N	Y	Y	Y	N	N	Y
Harvest and postharvest handling	N	Y	Y	Y	N	N	N
Human rights	Y	Y	Y	Y	Y	N	Y
Child labour	Y	Y	Y	Y	Y	Y	Y
Forced labour	Y	Y	Y	Y	Y	Y	Y
Abuse of labour	Y	Y	Y	Y	Y	Y	Y
Non-discrimination and freedom of association	Y	Y	Y	Y	Y	Y	Y
Working conditions	Y	Y	Y	Y	Y	Y	N
Compliance with wages and benefits regulation	Y	Y	Y	Y	Y	Y	Y
Compliance with health and safety regulation	Y	Y	Y	Y	Y	Y	Y
Employee health and safety	Y	Y	Y	Y	Y	Y	Y

Supplier Selection Practices	Supply chain						
	A	A1	A2	A3	B	B1	B2
Use of personal protection equipment	N	Y	Y	Y	Y	N	Y
Training employees	N	Y	Y	Y	N	N	Y

Table 4-6 Supplier selection practices

The SMEs studied focused on sustainability value over low cost in supplier selection, with brands emphasising the need for environmental and social performance based on product and process innovation. The findings reveal that retailers mainly adopted initiatives to improve internal environmental and social dimensions. However, it is evident that both retailers took steps to modify sourcing practices and appear to have established steps to improve sustainability in supply chain position. Apart from retailers, upstream suppliers were able to influence subsequent suppliers.

On first impression, brand B1 extended sustainability behaviour appears that were vastly different to brand A1. It is important to note that brand A1 initially did not operate with the current coercive or rewards measures. However, as the organisation developed, it gradually introduced such measures. The evidence suggests international market conditions compelled the brand A1 to rely on recognised certifications. Despite its varied use, standards and certifications played a significant role in both first-tier organisations. Similar to the study of González, Sarkis and Adenso-Díaz (2008), organisations adopting certifications such as ISO 14001 or EMAS are more likely to pass on sustainability requirements to upstream suppliers.

The findings reveal that brand B1 was still in its early stages, with the potential to develop in ways similar to brand A1. The researcher admits that the developing nature and operational capacity of brand B1 enabled it to work in ways like brand A1 as it matures. As the brand expands, brand B1 could be forced to adopt entirely different sourcing and production strategies. It may not be able to sustain only local production and sourcing methods.

The two case studies' second-tier and third-tier suppliers are vastly different from each other. The second-tier (A2) and third-tier (A3) suppliers are strongly influenced by first-tier brand A1's sustainability standards. The evidence indicates that all supply chain partners must obtain internationally recognised certification and align sustainability standards. Brand A1 adopted measures to influence the supply chain beyond direct suppliers onto sub-suppliers, eventually covering the entire supplier network. The

second-tier supplier adopted stringent sub-supplier selection through certifications (e.g. GOTS, ISO14000). Effective use of resources, waste management, environmental performance, pollution prevention and chemical measurement were also used. Moreover, human rights (e.g. child labour, forced labour, fair wages), training and working conditions (e.g. employee health and safety) were also expected. Suppliers were evaluated based on brand A1's sustainability expectations. Brand A1 employed ongoing supplier monitoring and third-party auditing programmes. It is seen that this approach facilitates the selection of more capable suppliers and sub-suppliers, eventually reducing the risk or initiate corrective action for any non-compliance (Foerstl et al., 2010; Reuter et al., 2010). Even though there is no sub-supplier nomination programme, brand A1 expected suppliers to partner with sub-suppliers and operate under certified organic and environmentally sustainable practices.

However, as discussed earlier, brand B1 relied on in-house or a few selected seamstresses for production. Brand B1 did not take the responsibility for diffusing sustainability requirements to sub-suppliers. Brand B1 had established direct relationships with self-employed production partners but there was no relationship beyond that. Given the nature of self-employed seamstresses, the sustainability expectation remained very limited. Brand B1 mainly paid attention to fair pay for production. Brand B1's self-employed workers provided expertise, product knowledge and unique skills. Both parties worked on mutually agreed interdependent partnerships. They engaged in arm's-length relationships. Supply chain B's uniqueness depends on local raw material sourcing and authenticated 'Harris Tweed' fabric that is governed by the Act of Parliament.

4.6.2.2 Supply chain practices in supplier performance assessment

Scholars have discussed the power dynamics that affect the ability of organisations to exert influence over another organisation (Maloni and Benton, 2000; Nyaga et al., 2013). As discussed earlier, brand B1 used local sourcing methods, factory visits, communication and long-term relationships to develop sustainability in the supplier base. The findings highlight that brand B1 drew on referrals and shortlisted a few pre-screened suppliers for a trusted long-term partnership. Unlike brand A1, brand B1 had no power asymmetry and lacked direct contract obligations and supplier transparency. Therefore, it was hard to extend control over multiple levels of the supply chain.

Alternatively, brand B1 relied on the HTA to authenticate supplier operations. This type of authentication or upstream suppliers' own initiatives can improve sustainability performance. Improvements to product and operations can lead to SSCM development. The results suggest that products or suppliers that meet organisational requirements are readily available on the market, making it relatively easy to identify suppliers with superior environmental and social behaviours.

SMEs often use recognised standards and certification to negotiate international markets. The findings supplement those of Wilhelm et al. (2016), who suggested that SMEs consider third-party assessment to be more reliable and efficient in measuring sustainability development. Evidence from the research suggests that brand A1 mostly relied on industry standards and certification to evaluate supplier sustainability performance. Compliance with human rights, working conditions, health and safety regulations and chemical management were commonly monitored and assessed by brand A1. Suppliers that adopted third-party certifications and standards generally received top priority (e.g. Tachizawa and Wong, 2014; Wilhelm et al., 2016).

On the other hand, parallel with existing studies by Mena, Humphries and Choi (2013) and Tachizawa and Wong (2014), the research findings reveal that SMEs could opt not to monitor the supplier network by adopting a 'do not bother' approach. Retailers A and B lacked the necessary resources and capabilities to manage supplier sustainability, in a similar way to the SME literature finding (e.g. Gimenez, Sierra and Rodon, 2012; Touboulic and Walker, 2015). Table 4-7 presents the sustainability assessment practices evidenced in the cases.

Supplier Assessment Practices	**Supply Chain**						
	A	**A1**	**A2**	**A3**	**B**	**B1**	**B2**
Compliance with regulation	Y	Y	Y	Y	Y	Y	Y
Certification	N	Y	Y	N	N	N	Y
Procedures for environmental control	N	Y	Y	Y	N	N	N
Internal function for environmental management	N	Y	Y	N	N	N	Y
Water management	N	Y	Y	Y	N	N	Y
Efficiency of material usage	N	Y	Y	Y	N	N	Y
Energy management	N	Y	Y	N	N	Y	Y
Use of recycled materials	N	Y	Y	Y	N	Y	Y
Wastewater treatment	N	Y	Y	Y	N	N	N

Supplier Assessment Practices	Supply Chain						
	A	A1	A2	A3	B	B1	B2
Waste management	N	Y	Y	Y	N	Y	Y
Carbon management	N	Y	Y	Y	N	N	Y
Chemical management	N	Y	Y	Y	N	N	Y
Fire safety	N	Y	Y	Y	N	Y	Y
Good manufacturing practices	N	Y	Y	Y	N	Y	Y
Sustainable agriculture practices	N	Y	Y	Y	N	N	Y
Soil management	N	N	Y	Y	N	N	Y
Integrated agriculture	N	N	Y	Y	N	N	N
Use of pesticides and chemicals	N	Y	Y	Y	N	N	N
Natural reserves and protection	N	Y	Y	Y	N	N	Y
Biodiversity conservation	N	Y	Y	Y	N	N	Y
Human rights	Y	Y	Y	Y	N	Y	Y
Compliance with labour regulation	Y	Y	Y	Y	Y	Y	Y
Human rights	Y	Y	Y	Y	Y	Y	Y
Investment in society	Y	Y	Y	Y	Y	Y	Y
Working conditions	Y	Y	Y	Y	Y	Y	Y
Working and labour conditions	Y	Y	Y	Y	Y	Y	Y
Wages	Y	Y	Y	Y	Y	Y	Y
Workers competencies	Y	Y	Y	Y	N	Y	Y
Training for employees	Y	Y	Y	Y	N	N	Y
Health and safety conditions	Y	Y	Y	Y	Y	Y	Y
Machinery safety	Y	Y	Y	Y	Y	Y	Y

Table 4-7 Supplier performance assessment practices

Research identified the apparent difficulty for SME retailers to influence and verify sustainability practices within the supply chain. At the first level, this study came across mixed results; depending on the maturity, size and ability of the organisation they may or may not be able to influence or verify sustainability practices. This is also true for second- and third-tier suppliers.

The findings suggest that a lack of resources and ability to evaluate supplier practices and a lack of consistent sustainability information about suppliers in the industry poses the biggest challenge in supplier performance assessment. In order to overcome the challenges, the research suggests a simple model to evaluate organisational and

supply chain sustainability performance so that each organisation can consider the organisational and supply chain sustainability of their suppliers.

4.6.2.3 Supply chain practices in supplier development

Except for the two retailers, A and B, the studied SMEs are all in constant communication with their suppliers, supporting the development of supplier relationships. In contributing to SSCM, these relationships create an emotional intensity and commitment with suppliers. Supply chain effectiveness depends on strong supply chain relationships that can be viewed as a critical antecedent to organisational performance.

The findings align with literature, which indicates that SMEs are more likely to pursue cooperative frameworks based on trust, reputation and mutual benefits (Arend and Wisner, 2005). These findings contribute to the nature of SME supply chain relationships and the role of intangible qualities of trust, commitment and shared understanding.

Evidence suggests that various reward schemes and sharing of expert knowledge can improve SME sustainability behaviour. However, it depends on the dominant organisations with resources and capabilities. For example, the first-tier brand A1 paid a premium price to material suppliers. It also adopted non-financial incentives like technical workshops, learning and development programmes and social activities for the sub-suppliers, farmers who participated in the organic farming programme. It is also evident that the first tier engaged with the suppliers' and sub-suppliers' environmental and social self-interest by recognising innovative sustainability accomplishment, for example by endorsing 'upmade' garments introduced by the second-tier supplier. It is important to note that the first-tier supplier is not an expert but had managed to develop collaboration with experts for SSCM. Brand A1, for example, established collaboration with the organic cotton coalition to share cotton-farming expertise, skills and knowledge with the farmers. This is a prevalent phenomenon supported by several research findings (e.g. Rao, 2002; Rao and Holt, 2005). Table 4-8 presents the supplier development sustainability practices evidenced in the cases.

Supplier Development Sustainability Practices	Supply Chain						
	A	A1	A2	A3	B	B1	B2
Sustainability requirements	N	Y	Y	Y	N	N	Y
Water management	N	Y	Y	Y	N	N	N
Efficiency of material usage	N	Y	Y	Y	N	N	Y
Wastewater treatment	N	Y	Y	Y	N	N	N
Waste management	N	Y	Y	Y	N	N	Y
Carbon management	N	Y	Y	N	N	N	Y
Chemical management	N	Y	Y	Y	N	N	Y
Reducing packaging	Y	Y	Y	Y	Y	Y	N
Use of recycled materials	N	Y	Y	Y	N	Y	Y
Biodiversity	N	Y	Y	Y	N	N	Y
Good manufacturing practices	N	Y	Y	Y	N	Y	Y
Soil management	N	Y	Y	Y	N	N	Y
Human rights	N	Y	Y	Y	N	Y	Y
Child labour	N	Y	Y	Y	N	N	Y
Local development	N	N	Y	Y	Y	Y	Y
Empowerment	N	Y	Y	Y	N	Y	Y
Working and labour conditions	N	Y	Y	Y	N	Y	Y
Wages	N	Y	Y	Y	N	N	Y
Health and safety conditions	N	Y	Y	Y	N	N	Y

Table 4-8 Supplier development sustainability practices

However, as SMEs develop, they move from simple collaborating with local suppliers to managing globally diverse supplier networks that can provide more innovative and commercial products. This highlights the importance of supplier networks in the SME context as the nature of supplier relationships and sustainability principles could have a stronger influence on how SMEs achieve environmental and social performance.

Brand A1 showed significant commitment to developing a strong collaborative relationship with suppliers and sub-suppliers. Collaborative practices enable the supplier and sub-suppliers to integrate knowledge to support the development of sustainability. Scholars have highlighted that environmental and social misconduct in supply chains occurs in organisations with no relationship with suppliers or sub-suppliers (e.g. Koplin, Seuring and Mesterharm, 2007; Choi and Linton, 2011). Like brand A1, the second-tier supplier A2 initiated development programmes, workshops,

and training sessions to support sub-suppliers in developing their capabilities (e.g. Bai and Sarkis, 2010). SMEs also rely on external partnerships such as associations, authorities or agencies for support supplier development. They also consider forming long-term partnerships to manage supplier networks. Based on the work of Jamali and Keshishian (2009), these kinds of partnerships pursue common goals, leveraging joint resources and capitalising on their respective competences.

4.6.3 Supply chain sustainability drivers

The research was able to summarise the key themes that drive sustainability in SMEs and supply chains.

Supply Chain Sustainability Drivers		A	A1	A2	A3	B	B1	B2	B3
Individual	Owner/management	Y	Y	Y	Y	Y	Y		
Organisational	Economic value	Y	Y	Y	Y	Y	Y	Y	
	Firm value	Y	Y	Y	Y	Y	Y	Y	
	Competitive advantage		Y	Y	Y	Y	Y		
	Differentiation	Y	Y	Y	Y	Y	Y	Y	
	Risk reduction		Y	Y	Y		Y		
	Compliance	Y	Y	Y	Y		Y	Y	Y
Macro	Customer expectation		Y	Y	Y	Y	Y		
	Societal expectation		Y	Y	Y		Y	Y	Y

Table 4-9 Supply chain sustainability drivers

This study identifies nine drivers that extend sustainability. The drivers can be categorised as individual, organisational or macro. It is evident that the owners and top management influence SMEs to adopt sustainability practices. Economic value and firm value contribute to internal sustainability. However, findings suggest that the two retailers (A and B) took separate views on sustainability. It is important to understand the internal and external dynamics that determine the individual-, organisational- or macro-level influencers for SSCM.

Individual

Given the complexity of environmental and social dimensions of sustainability, the findings reveal that organisations find it challenging to uphold practices above the first-tier supplier. Overwhelmingly, the critical normative value of the owner and the top management values drive internal sustainability, which could extend to SSCM. The

findings support the idea of Park and Stoel (2005), who examined the personal attitudes of management towards ethics and social responsibility and found that it positively influences sustainability. The morality of management is a significant sustainability driver. SME owners are often the main agents in combining scarce resources, which are dynamic capabilities. SMEs retain normative drivers in SSCM through the ethical and moral values of the owners and top management, as suggested by previous studies (e.g. Russo and Tencati, 2009; Sajjad, Eweje and Tappin, 2015). It is, however, unclear what drives the increase in personal values and beliefs for environmental and social practices, which remain a further area of inquiry.

The findings from both retailers reveal that they were dependent on the first-tier supplier to disclose sustainability information. They relied on self-declared and publicly available supplier information. Retailers have a weak direct power over suppliers and sub-suppliers. They are incapable of influencing or verifying sustainable supplier performance. They depend heavily on partner trust.

Supplier sustainability development based on compliance triggers, for example through first-tier suppliers' decision to change from conventional cotton-based to organic cotton-based products. Second-tier and third-tier suppliers cite sustainability compliance requirements as a significant driving force.

Organisational

Organisational factors such as economic value, competitive advantage and differentiation are more prevalently cited within the first-tier and second-tier suppliers. Unquestionably, economic value is an important driver. Economic value expectations result from the pursuit for effective management of the available resources. Financial stability, increased revenue, and return on investment ultimately influence sustainability.

Both retailers approached the suppliers with the notion that they needed action to improve supplier sustainability but failed to develop a verifiable means to achieve sustainability. Both retailers highlighted that SMEs face internal barriers to SSCM, which is rationalised through organisational configuration (i.e. size, capacity, power, resources). Often the size and characteristics of SMEs hinder the development of SSCM. The retail SMEs' emphasis is clearly on the adoption of inexpensive easy-to-implement measures.

However, it can be argued that, as organisational size and power increases, so do sustainability expectations; for example, as A1 expands its business worldwide, it was forced to develop SSCM. Organisations introduced international certifications, CoC and increased investment in alternative materials; they adopted assessments (e.g. site visits, audits), standards and certifications (e.g. Fairtrade, GOTS, ISO) and collaborated (e.g. ChetCo) for SSCM. The findings reveal key sustainability management practices adopted by brand A1 and brand B1, illustrated in Table 4-10.

Practices	**First-Tier Brand A1**	**First-Tier Brand B1**
Supplier management practices	Suppliers are expected to gain certifications Supplier assessment Code of conduct Association with the coalition On-site assessments	Local sourcing Small shortlist of suppliers Site visits Trust Referrals
Sub-supplier management practices	Certifications Code of conduct Supplier visits Association with the coalition	Not involved Reliance on certifications
Parties involved with management of sub-suppliers	Third-party certification bodies Coalition with ChetCo Downstream suppliers	Reliance on HTA certification
Assessment methods	Site visits On-site assessments Third-party audits Supplier self-assessments	Site visit Transparency about suppliers
Collaborative practices	Building sustainability capabilities Training workshops Awareness workshops Knowledge sharing	No such collaborative effort Rely on HTA to manage the sub-suppliers

Table 4-10 Overview brands of supplier and sub-supplier management practices

Brand A1 adopted assessment and collaboration, while brand B1, still in its early stage of maturity, relied heavily on trusted local suppliers. Brand B1's behaviours were uniquely similar to brand A1 during a similar phase of organisational growth. Even though brand A1's and brand B1's current sustainability actions were different, the initial phase of brand A1 had the similar characteristics as brand B1. Therefore, the researcher believes that, if brand B1 follows a similar growth pattern to brand A1, sustainability action could turn into parallel behaviour. Even though brand B1's long-term development strategies are not yet formalised, the owner revealed that overseas production facilities have significant sustainability practices; thus, sourcing from overseas might be an option in the future, comparable to brand A1.

Generating competitive advantage and differentiating value through sustainability practices appear less significant for retailer A but more significant for brand A1 and second-tier supplier A2. Retailer B and first-tier brand B1 seem to have contrasting attitudes and behaviours. The retailer B embraces differentiation and competitive advantage based on sustainability. This is somewhat inconsistent with the study by Forman and Søgaard Jørgensen (2004), who found evidence to support the argument that perceived market opportunities explicitly drive sustainability initiatives.

Welford and Frost (2006) see risk reduction as a driver for sustainability: 'companies cannot afford to be seen or even perceived as doing anything to harm people or the environment in the supply chain and that bad publicity, even if it is not accurate, harms reputations and damage brands' (p. 168). The research found the evidence inconclusive on this. The findings suggest that retailers have little concern about any associated reputational risk; however, both brands did show greater interest in risk management. That is echoed in the literature, that the perception of potential risk influences organisations to embrace extended sustainability practices (Hofmann et al., 2014).

Macro

Arguably, the entire antecedents depend on the perception of responsibility. This could be the perception of someone within the organisation with power to influence or the perception of some external factor that influence the organisation. Several contributors cite customer pressure as an antecedent to SSCM (e.g. Canning and Hanmer-Lloyd, 2001; Carter and Dresner, 2001). However, the research findings suggest that consumers do not influence retailer sustainability and customer demand has little

impact on the SSCM. Conversely, upstream suppliers are influenced by supplier network expectations.

This study's findings suggest that SMEs more often delegate tasks to a more resourceful supplier for diffusion of supplier sustainability. It is also evident that SMEs seem to consider that the local nature of a supplier helps to maintain greater control over sustainability action as there is the expectation that the ability to visit facilities, deepen relationships and build trust is much easier.

4.7 Thematic analysis

Thematic analysis provides a definition of the unit of analysis and provision of descriptive analysis of data (Beske, Land and Seuring, 2014). The review of each thematic group created categories, as illustrated in Table 4-11. Groups of themes are identified through case analysis from rich primary research data (Abbasi and Nilsson, 2012). The categories show alignment with the structure of literature reviews, moving from broad sustainability to themes to more specific sustainability in supplier relationships in SMEs. The research focuses on what the interviewers perceive to be sustainability practices and how the business supports sustainability practices upstream. Each category is understood as a particular classification with definite limits, which enables the research data to be grouped together. The themes reflect top management's recognition of multidimensional goals and actions that link organisational behaviour. The focus is on what the focal organisations and supply chain partners see as sustainability and how they engage in such behaviour.

This study's results connect with the literature findings, which characterise the three sustainability dimensions through key subjects and several sub-subjects. General themes are based on information related to normal business practices necessary for long-term survival.

Themes		Description
Be	Reliability	Consistently meet stakeholder expectations
	Reactivity	Effectively dealing with challenge and respond to unanticipated events
	Flexibility	Ability to make internal changes effectively to changing external factors
	Efficiency	Ability to generate higher output with lower input
	Transparency	Open about behaviour, supplier base, action etc. with stakeholders
	Quality	Product and service that meets the customer's expectations
Improve	Revenue	Income for a set period
	Yield	Generate more income with fewer resources
	Environmental	Adoption of environmentally friendly, low-energy, low-waste strategies
	Resources	Consideration for scarce and valuable natural resources
	Pollution	Water, waste and energy emission management. Reduce, reuse and recycle
	Hazard Mgmt.	Identifying and addressing potential risks
	Labour relations	Promoting good health and well-being, employee communications, fairness etc.
	Labour rights	Contribute to support human rights campaigns
Participate	Community	Business giving back to local community
	Good business practice	Integrate ethical business behaviour
	Industry standards	Fulfil expected standards for the industry
	Innovation	Develop new sustainable or sustainability products, process and plans
	Educate	Educate both internally and externally about health, safety, products and process

Table 4-11 Summary of general themes

Table 4-12 shows the placement of each general theme in the two supplier networks. The study classifies each emerging theme based on the TBL contribution. The ‘X’ symbolises the existence of sustainability conditions within the three dimensions, while the symbol ‘O’ implies any lack of evidence for the noted sustainability dimension. Table 4-12 uses PP for ‘People’, PL for ‘Planet’ and PR for ‘Profit’ categories of the TBL sustainability conceptualisation. ‘AGGR’ represents the collective number of sustainability conditions present within the supply chain.

Themes	A			A1			A2			A3			B			B1			B2			AGGR		
	PP	PL	PR	PP	PL	PR	PP	PL	PR	PP	PL	PR	PP	PL	PR	PP	PL	PR	PP	PL	PR	PP	PL	PR
Reliability	X	O	X	X	X	X	X	X	X	X	X	X	X	O	X	X	O	X	X	O	X	7	3	7
Reactivity	O	O	X	X	X	X	X	X	X	X	X	X	O	O	X	O	X	X	O	O	X	3	4	7
Flexibility	O	O	X	X	X	X	X	X	X	X	X	X	O	O	O	O	O	X	O	X	O	3	4	5
Efficiency	O	O	O	O	X	X	X	X	X	X	X	X	O	O	O	O	X	X	X	X	X	3	5	5
Transparency	O	O	O	X	X	O	X	X	O	X	X	O	O	O	O	X	X	O	X	X	O	5	5	0
Quality	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	7	7	7
Revenue	O	O	X	O	O	X	O	O	X	O	O	X	O	O	X	O	O	X	O	O	X	0	0	7
Yield	O	O	X	O	O	X	O	O	X	O	O	X	O	O	X	O	O	X	O	O	X	0	0	7
Environmental	O	X	O	O	X	O	O	X	O	O	X	O	O	X	O	O	X	O	O	X	O	0	7	0
Resource	O	X	O	O	X	O	O	X	O	X	O	O	O	X	O	O	X	O	O	X	O	0	6	0
Pollution	O	X	O	O	X	O	O	X	O	O	X	O	O	X	O	O	X	O	O	X	O	0	7	0
Hazard Mgmt.	X	X	O	X	X	O	X	X	O	X	X	O	O	X	O	X	X	O	X	X	O	6	7	0
Labour relations	X	O	O	X	O	O	X	O	O	X	O	O	X	O	O	X	O	O	X	O	O	6	0	0
Labour rights	X	O	O	X	O	O	X	O	O	X	O	O	X	O	O	X	O	O	X	O	O	6	0	0
Community	X	O	O	X	O	O	X	O	O	X	O	O	O	O	O	X	O	O	X	O	O	6	0	0
Good business practice	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	7	7	7
Industry standards	X	O	O	X	X	O	X	X	O	X	X	O	O	X	O	X	X	O	X	X	O	6	6	0
Innovation	O	O	O	O	X	X	O	X	X	O	X	X	O	O	X	O	X	X	O	O	X	0	4	6
Educate	X	O	O	X	O	O	X	O	O	X	O	O	O	O	O	O	O	O	X	O	O	5	0	0
Customer influence	X	O	O	X	X	O	X	X	O	X	X	O	O	X	O	X	X	O	O	O	O	5	5	0

Table 4-12 Triple bottom line classification of general themes

Table 4-13 presents the specific themes and how these themes link with the investigated supplier network specific behaviour. Unlike general themes, specific themes are based on information that highlights sustainability practices above and beyond normal sustainability practices.

Specific Themes	Description
Broaden market	Introduction of new product lines, enter new markets
Durability and value	Value for money and product durability
Equality	Non-discriminative environment
Equity	Community development, access to basic human needs
External fairness	Fair wages, humane treatment within the supply chain, fair price for raw materials
Compliance with regulations	Comply with international, national and local regulations
Collaboration	Working well with organisations within the supply chain
Corporate	Working with other firms or organisations outside of supply chain
Chemical usage	Reduce chemical usage, hazards material usage
Customer safety	Improving customer safety, on packing, products
Cost	Reasonable product and process cost
Eco production	More resources for eco design and production
Emission	Reduce emission, energy efficiency
Employee safety	Improve employee safety
Employee health and well-being	Contribute to improve employee health and well-being
Employee benefits	Other employee benefits, transportation, training, medical
Employment	Local opportunity for secure income
Freedom and flexibility	Stakeholder freedom, employee freedom of association
Feedback	Value of stakeholder feedback
Financial stability	Repayment of debts, proper cash flow

Specific Themes	Description
Growth	Enhance revenue, sales, bottom line or profitability
Improve community	Participate to improve local community
Internal fairness	Fair wages, humane treatment of employees and people
Natural material	Use of less damaging materials
Packing material	Use of sustainability related packing material
Optimum production	Use efficient production and usage
Research and development	Research methods to improve product and process
Resource protection	Minimise the use of natural resources
Reduce energy use	Less energy use or renewable energy use
Reduce waste	Measures to reduce wastage
Reduce water usage	Methods to use lesser water
Reuse and recycle	Change process to reduce waste, reuse waste and recycle methods
Reduce transportation	Use of local to reduce transportation cost and harm
Skill development	Improve staff skill levels
Specialty products	Introduction of specialty product line for 'niche' markets
Supply chain management	Align sustainability demands within supply chain

Table 4-13 Summary of key specific themes

4.7.1 Application to the triple bottom line

This research classifies the themes that fall into one or more of the three dimensions, based on efforts to undertake sustainability-related initiatives both for the organisation and the supplier network. The visual depiction of the categorical distribution permits the research to examine practices that might otherwise be difficult to detect. The Venn diagram in Figure 4-4 shows the research where each theme falls under the people, planet and profit categories. The emergent common or general themes are depicted in bold, while specific themes are depicted in regular font. The general themes are those that the organisations identify as valuable sustainability elements for business survival and specific themes are sustainability activities beyond normal business operations. In this case, the diagram allows the reader to visualise the sustainability themes.

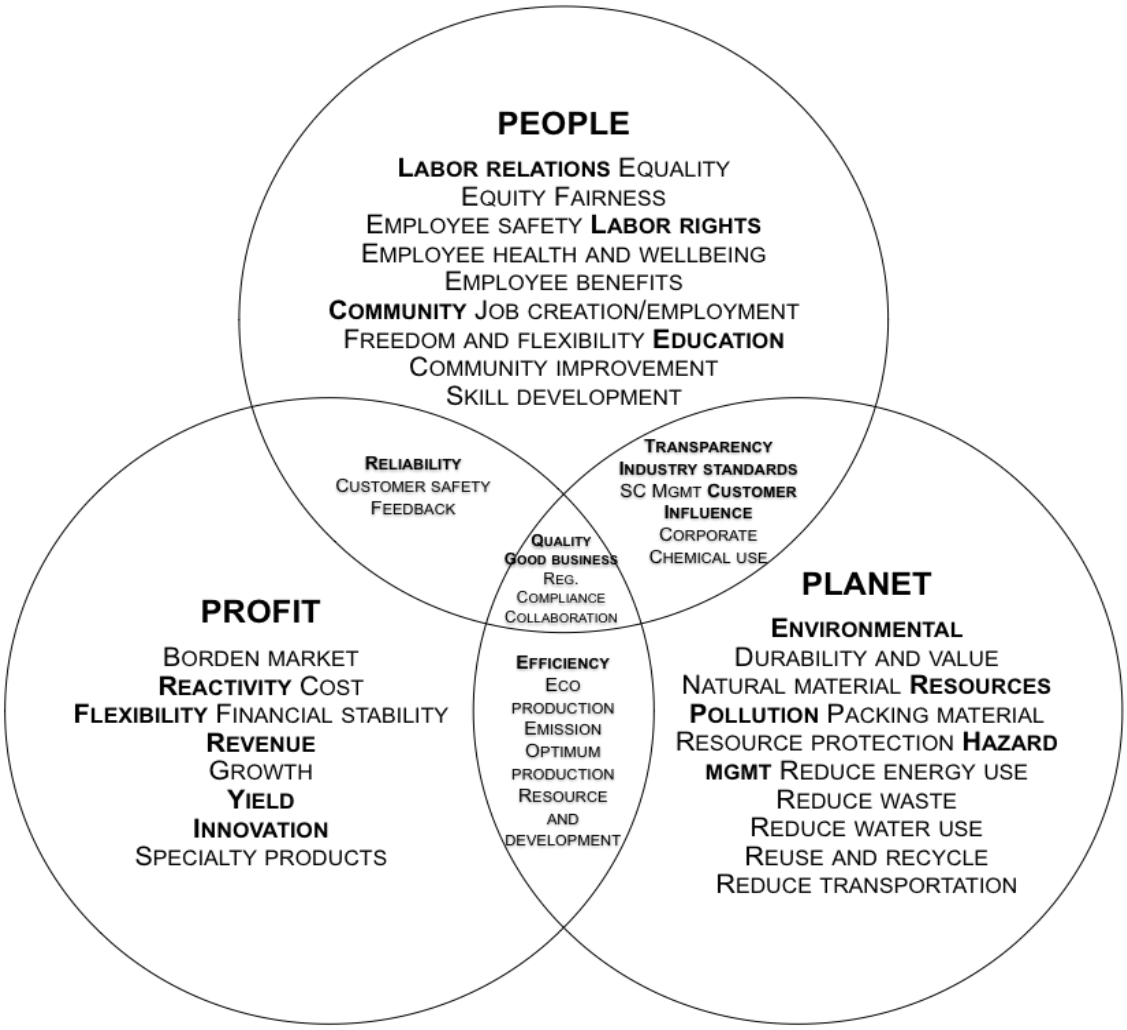

Figure 4-4 Themes in Venn diagram

It is evident that the ‘planet’ dimension has the most themes (27), closely followed by ‘people’ (26), which highlights that ‘planet and people’ were the topic most elaborated. This means that the examined data suggest there are more practices that address ‘planet’ and ‘people’ dimension than ‘profits’ (21). Similar to the literature findings, the overall sustainability dimension (3) remains the least discussed. This means that findings suggest that more behaviours address the individual people, profits and planet dimensions but fail to develop initiatives to address sustainability dimensions. Research results confirm previous studies that show that SMEs lack sustainability development (Wu, 2017). However, this study could conclude that the investigated SMEs and their supply chains have managed to find a close balance between the three sustainability dimensions. The combination of general and specific themes is relatively evenly distributed.

Even though some scholars dismiss SMEs' profit-focused notion, this research highlights that profit remains a key dimension. People-focused initiatives are broadly defined; for example, employee skills development, fair wages, working conditions, employee benefits and health camps are all compressed into one theme. Therefore, it is difficult to distinguish whether specific employee initiatives are aimed at profitability or aimed at social development. However, a broader definition is not unique to the people dimension alone. Other aspects, such as organic use, reduced energy use, reduced waste, packaging material, emission and renewable energy, are all compressed into one theme. Thus, the researcher believes that broader definition balances specific initiatives and it is much more important to capture the sustainability of these interdependent themes that are subject to more than one category.

4.7.2 Assessment on structural and behavioural change

Each of the four quadrants in Figure 4-5 represents two considerations that shape SMEs adopting general sustainability practices: (i) the horizontal axis corresponds to the decisions of organisations on structural or behavioural change and (ii) the vertical axis corresponds to decisions concerning the supply chain.

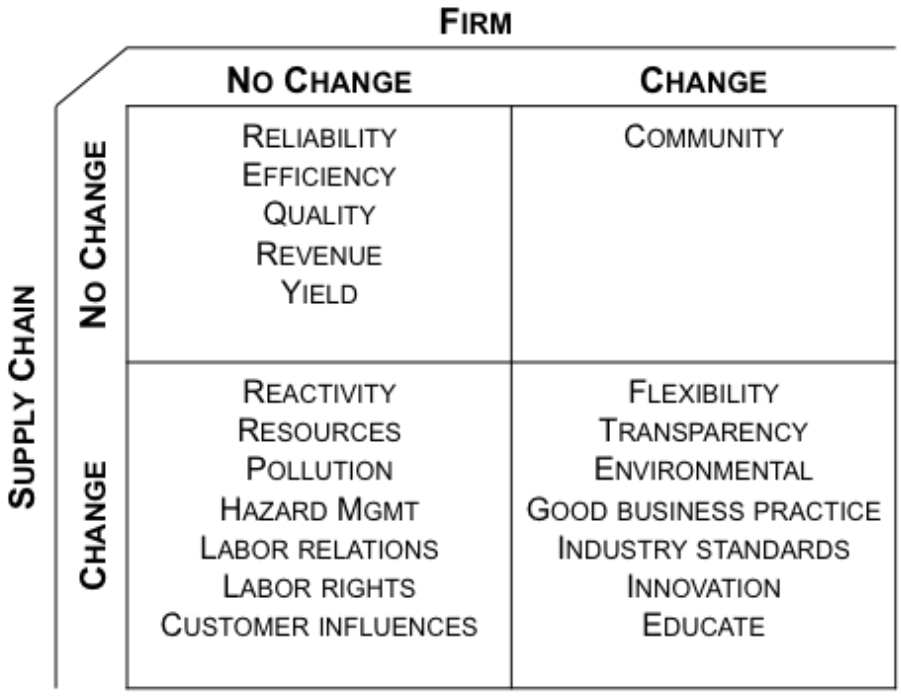

Figure 4-5 Consequence on structure and behaviour

The top left quadrant presents themes that require no organisation or supply chain structural change. Those in the first category fall into normal business operations to

maintain stakeholder relationships. Thus, there is no need to influence these initiatives along the supply chain. It is natural that SMEs display a favourable behaviour towards financial or 'profit' elements.

The practices in the top right quadrant are themes that require organisational changes, but no structural changes are needed in the supply chain. This does not mean that supply chain partners cannot take the same sustainability initiative, but they will do so independently. Individual organisations need to change existing processes to accommodate these actions.

The practices in the bottom left quadrant present initiatives that the organisation does not require any changes but do require that the organisation select supplier networks with sustainability characteristics or their current supply chain partners to create structural or process changes. While the organisation itself does not require making structural or behavioural changes because they are currently adopting superior sustainability initiatives, it is, however, possible that the organisations encourage or influence the supplier network to work within a sustainability paradigm. For example, owing to stronger labour policies in Western economies, organisations tend to adopt better practices than their counterparts elsewhere, and therefore pressure their supply partners to work towards enhancing labour practices, which in turn affect supplier network partners to adapt to sustainability requirements.

However, the themes represented in the bottom right quadrant entail either a considerable level of effort by the organisation or a significant level of cooperation within the supplier network. It does not seem that the organisation has adopted such behaviour as part of normal business practices for short-term survival. The case findings reveal that these initiatives are created to validate sustainability behaviour.

The bottom right quadrant includes themes that require organisational and supply chain collaboration. Duclos, Vokurka and Lummus (2003) and Siddiqui, Haleem and Wadhwa (2009) highlighted the importance of organisational and supply chain flexibility as one of the primary strategies to achieve agility and high responsiveness of supply chains. SMEs need to include flexibility in supply chain designs and therefore operations on environmental and social performance. In the research context, flexibility in the supply chain includes sustainability dimensions that directly affect SMEs' shared responsibility functions along the supply chain, whether internal or external to the organisation. Arguably, this is attainable through supply chain collaboration.

Sustainability in the fashion industry is driven by brands that are often removed from where many unsustainable impacts materialise. Studies highlight that SMEs can contribute to the supplier network with knowledge and information to move towards collective sustainability development; for example, working with a coalition of trusted suppliers can reduce risk and working together helps accomplish superior sustainability performance.

Effective practices to minimise environmental damage (e.g. waste control/prevention, energy efficiency, renewable energy, natural resource management) are about participants in the chain following environmentally friendly initiatives to guarantee that processes, products and manufacturing activities adequately address environmental concerns. This requires change in behaviour and structure.

Industry sustainability standards and certificates exist to protect and inform the consumer. They are designed to demonstrate that quality, environmental and social values are met. SMEs and supply chain partners discuss significant certifications and standards, such as GOTS, a certificate that sets global standards for natural fibres to ensure that yarn, fabrics and apparel that are considered 'organic' retain the authenticity from harvesting, processing, exportation and selling. Fairtrade certification supports farmers by compensating appropriately for the raw product. In addition, it requires SMEs to remain responsible for processing and production. The uniqueness of one fashion collection meant that the brand could adopt specific standards and certifications unique to their collection (e.g. Harris Tweed). These kinds of industry standards and certifications exist to minimise the damage and are designed to promote measurable improvements in environmental and social factors, aimed at making the industry more sustainability focused.

Innovations create solutions for sustainability: technological capability to introduce environmentally friendly polyester and other textiles that are easy to recycle, methods to create raw material that can be remanufactured to alternative fibres, and the introduction of versatile cotton alternatives like hemp, lotus and others. Innovations, along with supplier partnerships, have contributed to supply chain actors implementing natural dying, minimising the use of chemicals, controlling water usage and pollution. In addition, brands have joined the recycling course by accepting second-hand clothing, ensuring there is reuse. However, decisions made in this regard should not unduly disrupt other processes within the supply chain (Gwilt, 2020).

The education topic relates not just to employees but more holistic education among the entire supply chain. Expanding expert knowledge, communicating and educating each other, requires change at both ends. This is an auxiliary activity in sustainability development that cannot be accomplished without supply chain involvement.

In the above analysis, themes that focus on 'profits' entail the least amount of structural and behavioural transformation and, arguably, require the least amount of effort. The themes representing all three dimensions require the most structural and behavioural change, thus a greater amount of effort. SMEs focus more on sustainability because they are not easy to achieve and go beyond normal business practice.

4.8 Influence and verification in supply chain

This research categorises actions by the retailer, the first tier (brand), the second tier (manufacturer) and the third tier (supplier) separately. The findings suggest that 'institutional' pressures have no significant effect on sustainability practices. However, 'coercive' pressure by supply chain partners influences sustainability among SMEs. Therefore, the findings confirm previous understanding that a positive relationship with coercive pressure influence sustainability (Worthington et al., 2008; Lee, Walker and Zeng, 2017).

The findings suggest that SME retailers lack power, which indicates limited negotiating power and leverage over first-tier suppliers. Lack of resources and capabilities limit their ability to monitor the environmental impact or social conditions at the supplier base. Any efforts to implement supplier selection practices are limited only to direct suppliers; they are unable to extend sustainability action beyond direct suppliers. However, literature on SNT provides theoretical underpinnings for the diffusion of sustainability through relationships and collaborative practices conforming to the collaborative paradigm.

The relationship with the supplier network provides an advantage for the sustainability development. The evidence suggests that long-term supplier network relationships offer better opportunities to allocate manufacturing capacity and manage scarce resources more efficiently. This research findings are consistent with the literature, which suggests that SMEs benefit from collaboration (Walker et al., 2014). The literature also reveals that regional clusters or networks facilitate collaborative efforts

(Hansen and Coenen, 2015). This is especially significant for SMEs' sustainability efforts as it offers more credibility and know-how for SMEs (Shashi et al., 2018).

First-tier management believes they share a common identity with the supplier network. Alongside trust, relationships and good faith are an integral part of their sustainability initiatives. However, as manufacturing moves offshore (e.g. Brand A1), they focus on a 'compliance-based' approach to implementing international certification and auditing to monitor and verify practices. It is important to note two fundamentals. First, as the business evolves there is a higher reputational risk. Second, businesses are reluctant to accept trust as the foundation for sustainability when suppliers are offshore. Brand A1's sustainability diffusion undertaking confirms that their upstream suppliers conform to standards and certification requirements, which supports previous studies (Corazza, 2019). Brand A1 assumes ethical practices with relationships with the supplier network (e.g. negotiating terms and conditions, timely payments). They use organisational power to develop a sustainability motivated supplier relationship and require suppliers to provide evidence of sustainability practices evident similar to prior studies (Jenkins, 2006; Ireland and Webb, 2006).

Coercive pressures may lead to symbolic sustainability adoption, often discussed as 'window dressing' (Masocha and Fatoki, 2018). However, owing to the nature of the research, subject findings may be disconnected from practice, as is common with social research, which depends on participant information. SMEs' efforts may devote relatively few resources to environmental and social causes just to reap public relations benefits or simply maintain legitimacy and meet stakeholder expectations. The approaches by the two retailers seem to suggest some symbolic approach.

The case findings suggest that participating in a sustainability alliance allows access to new knowledge, skills, expertise, resources and opportunity. The joint efforts of brand A1 and the Chetna coalition facilitate improved working conditions, a premium price for cotton farmers and higher wages for workers. Further, findings reveal that adopting verifiable sustainability focused sourcing channels are vital for SSCM. Brand B1's fabric sourcing method secures the brand a sustainable material. Social and environmental verification are confirmed through the inspection of the local production process. However, verification through inspection is challenging with a diverse offshore supplier base. Some adopted schemes ensure control and verification of SSCM. Even though the structure and process of the two cases presents different certification schemes, these programmes are intended to secure legitimacy and authenticity.

Supplier A2 depends on organic certification, GOTS and Fairtrade, while supplier B2's authenticity depends on the HTA certification. However, this mostly relates to a product and production process not necessary for sustainability development.

The findings reveal that 'mimetic' pressures affect the level of sustainability practices. Therefore, they are in line with Jenkins (2006), who stated that SMEs favour adopting peer practices. SMEs perceive the success of sustainability adoption and similarity with supply chain partners because they usually build strong ties (Russo and Tencati, 2009). As publicised by El Baz et al. (2016), SMEs are more likely to adopt similar responsible practices in the supply chain because they need to cooperate with supply chain members for survival. Thus, research findings suggest that through supply chain relationships SMEs are exposed to various sustainability practices that supply chain partners have already implemented, leading SMEs to be influenced by them.

A2 manufacturer findings reveal that sustainability initiatives are in parallel with the brand. However, the influences are twofold. Some evidence suggests that entrepreneurial values drive sustainability, for example the introduction of 'upmade' garments. On the other hand, brand A1's expectations and sustainability standard obligations drive extended SSCM. The findings support the literature that stakeholders are increasingly critical and are not easily satisfied with social and environmental responsibility criteria. In case B, the control over supplier initiatives remains with the brand B1, with the brand supplying all raw materials. Thus, the manufacturer is in no position to initiate SSCM. This discrepancy could be attributed to the nature of the business and in-house manufacturers. Upcoming designers like brand B1 are mostly independent and they operate with an entrepreneurial mindset, which help them build SSCM.

Scholars outline that organisations supply chain positions in a distribution channel face greater uncertainty that disturbs information flow. Often, organisations situated further upstream face higher supply uncertainty (Awaysheh and Klassen, 2010). In this context, firms might imitate the practices of other firms that are successful in adopting sustainability.

The findings show that normative pressure exerted by the supply chain influences sustainability. The findings are consistent with previous studies that suggest that norms, values and standards are usually diffused through inter-organisational channels (Liang et al., 2007; Koe, Omar and Majid, 2014). Customers and suppliers may share

tools and methods within the supplier network for sustainability implementation. Russo and Tencati (2009) identified that SMEs usually have close relationships with external stakeholders who facilitate informal exchanges. SMEs communicate with suppliers who have already adopted sustainability practices.

The research findings are inconsistent with the literature, suggesting that SMEs' level of responsible activities depends on their position in the supply chain (Carbone, Moatti and Vinzi, 2012). The findings show evidence that, irrespective of their position within the supply chain, they have a responsibility towards developing sustainability. The research findings are inconsistent with Lozano (2015) that organisations closer to consumers more strongly emphasise practices of environmentally friendly design, green purchasing, and internal sustainability management than organisations located upstream. Research findings suggest that the first-tier brands dominate the supply chain and dictates sustainability conditions.

4.9 Application of theoretical lenses

As discussed earlier, a single theoretical lens would not fully capture the rich and multifaceted nature of SME sustainability in SSCM. The use of multiple lenses would allow wider perspectives and interpretations of this phenomenon. The literature review significantly informs the choice of the interrelated theoretical lenses of RBV, ST, INT, SNT and ERT.

The lenses' emphasis on subjective 'real-world' ontology means they are philosophically compliant and focus on developing rich understandings of the phenomena with more interpretive epistemologies, which guide the qualitative research. The lenses individually and collectively provide relevant and valuable insight into the research findings and the knowledge of SSCM in SMEs.

4.9.1 Resource-based view

RBV stresses the importance of tangible and intangible resources, including supplier relationships and information sharing. These can provide an organisation with valuable and non-imitable benefits from within the supply chain, which are networks of resources. SMEs are usually resource poor so strong supplier relationships are key for SMEs to benefit from supplier relationships (Paik, 2011) through supplier collaboration, as is strongly apparent in the studied SME organisations, and their supply chains can create value that is difficult to achieve independently.

There is a greater emphasis on environmental performance in research so far (e.g. Banerjee, 2011). Research indicates a positive influence on financial performance, so it is understandable to focus more on environment-related performance (e.g. Ashby, Leat and Hudson-Smith, 2012). The studied SMEs employ environmental-related sustainability practices, such as the organic cotton process being ultimately mimicable, but how the whole supply chain connects to develop sustainability in the supply chain is difficult to recreate, in a similar way that Größler and Grübner (2006) highlighted intangible resources.

The owners and managers come from diverse backgrounds and experience, and they acquire knowledge and skills to develop sustainability principles, based on the understanding that the literature broadly categorises as human capital (Barney, 1991). Brand A1's knowledge and skills evolved through collaborative partnerships and relationships with upstream suppliers, which result in information sharing and capability building (Golini, Longoni and Cagliano, 2014), while the second-tier supplier A2 has manufacturing skills; they were both able to learn from each other to develop different sustainability focused product ranges. This can be viewed as supply chain connectivity that develops capabilities within the supply chain (Brandon-Jones et al., 2014). The introduction of innovative products can be classified as a unique capacity that help organisations build competitive advantage. Jacobs (2013) and Eckstein et al. (2015) noted the ability to generate competitive advantage based on product complexity.

Supplier A2 shows how owners' beliefs and behaviours affect sustainability, how all its employees fully understand the organisation's purpose and commitment to the Indian community and, more importantly, how this relates to supply chain practices (e.g. Fairtrade cotton). The founder of brand B1 was deeply involved in product development and involves building sustainability in supply chain. The use of Harris Tweed fabrics is not hard for competitors to replicate, while the combination of unique fabric and the designer skills represents rare and valuable resources.

SMEs' choice of supplier is influenced by the owner's or management's personal beliefs and commitments to sustainability. The ability to align organisational sustainability principles with supply chain partners helps expand SSCM. Wu and Pagell (2011) discussed this as supplier visibility; this can be essential in building overall supply sustainability performance. It is the combination of supplier network that

provides supply chains strong identity and authenticity, strength, reliability and performance.

4.9.2 Institutional theory

INT is another organisational theory applied in sustainability-related research (e.g. De Brito, Carbone and Blanquart, 2008; Bai and Sarkis, 2010). Applying INT to supply chains is an area currently in its infancy, especially where the focus is on sustainability and SSCM (Sarkis, Zhu and Lai, 2011). Previous research on INT has focused on organisations, while this study explores a supply chain with multiple organisations. INT's strength is that it offers an opportunity to identify and examine influences that promote the survival and legitimacy of organisational practices without obvious economic return (Berrone et al., 2013). Social, political and economic pressures affect organisational strategies and decision-making as they seek to adopt legitimate practices or legitimise their practices in the view of other stakeholders (Carter and Jennings, 2002).

INT enables a holistic approach to studying a multi-organisational environment, i.e. the fashion supply chain and how those in powerful positions influence and facilitate sustainability practices. A case study by Ageron, Gunasekaran and Spalanzani (2012) illustrates that the power of major players is particularly important. However, suppliers must be able to deliver on price and quality as the study found that these factors would not be compromised for sustainability development. The findings show that those in powerful positions tend to pressure less powerful organisations to build sustainability practices. Brand A1 used its power and position to pressure upstream suppliers to gain international accreditation (e.g. GOTS, Fairtrade). This is not particularly surprising as it seems intuitive that those in strong positions will use their power to incite new sustainability strategies. Upstream suppliers need to follow audit protocols, follow international regulations and build relationships with suppliers with sustainability.

The patterns of practices adopted by the investigated SME organisations show that coercive pressures are most influential in sustainability and sustainability practices. The studied organisations adopt practices such as CoC, third-party audits and supplier monitoring. On the other hand, normative drivers exert influence on social obligations for social necessity or what an organisation should be doing, as is evident in upstream suppliers A2 and A3. Often most SMEs engage in sustainability to reassure stakeholders that they take sustainability seriously (Smith, 2016). According to

literature customer demands provide normative pressures on organisations to implement SSCM practices (Sarkis, Zhu and Lai, 2011). The evidence suggests that retailers are not pressured directly by the customer demand but the shift towards sustainability-inspired fashion brands are indirectly influenced by global customer expectations; on the other hand, lower-tier suppliers are influenced by buying organisations (internal customer) demands. Yang el al. (2010) and Luthra, Garg and Haleem (2015) highlighted the importance of organisations' internal influence and proactive and supportive internal environment to help the effective implementation of SSCM, including implementing staff welfare and medical facilities that generate organisations legitimacy. Legitimacy is also seen as an influencing factor in SSCM strategies.

Despite the literature suggesting that regulation is the most common driver of sustainability practice, this was not the case in the sample (e.g. Forman and Jørgensen, 2004). The literature discusses that various types of policy initiatives can influence sustainability adoption (Grimm, Hofstetter and Sarkis, 2014). Contrary to earlier studies, there is only limited evidence of regulatory pressures mostly evident for labour practices, for example the minimum wage obligations on retailers A and B. It is evident that the findings are consistent with the survey by Bowen et al. (2001) that there is no link between the implementation of legislation and improvement in environmental activities. This research did not find conclusive evidence to dismiss this. However, the findings found that the unique Act of Parliament to preserve and authenticate local industry contributes to protecting the specific industry not the whole fashion industry.

In addition, policy documents issued by external organisations such as industry associations and ChetCo also stimulated brands and the supply chain to meet their social responsibilities (Ahi and Searcy, 2015). The findings suggest that labour standards are governed through the standards directed by the country of origin rather than standards relating to the retailer's location. There is no legislative requirement to implement a uniform labour practice. Unlike studies that focus on more heavily regulated industries such as oil and gas, regulation is not a key driver in relation to environmental and social practices within the fashion industry.

4.9.3 Stakeholder theory

ST is one of the major, if not the most frequently used, approaches in social, environmental and sustainability management research (e.g. Perrini and Tencati, 2006;

Sarkis, Gonzalez-Torre and Adenso-Diaz, 2010; Montiel, Husted and Christmann, 2012; Sen and Cowley, 2013). The literature focuses on the existence of stakeholder-friendly policies or programmes.

The studied SMEs have low public profiles, which reduce stakeholder engagement (e.g. NGOs, unions). This research shows that suppliers offer the broadest view of sustainability in SMEs. Successful implementation of an SSCM strategy requires suppliers to develop supplier relationships. Close relationship capability is the ability to convince members of the stakeholder group to work closely. This requires both skill and effort, so close relationship capabilities are both rare and difficult to imitate and valuable, complementing RBV.

From a sustainability management perspective, the sustainability initiative of a supplier organisation strongly affects the overall performance of the supplier network, whereas the buying organisation can be effective in expanding sustainability development upstream. This research places the buyer–supplier relationship as based on power and collaborative efforts, as suggested by Mukhtar, Shaharoun and Baksh (2002). Figure 4-6 shows each supplier's approach. Organisations in case A adopted a more collaborative approach, while organisations in case B operated with a low level of cooperation.

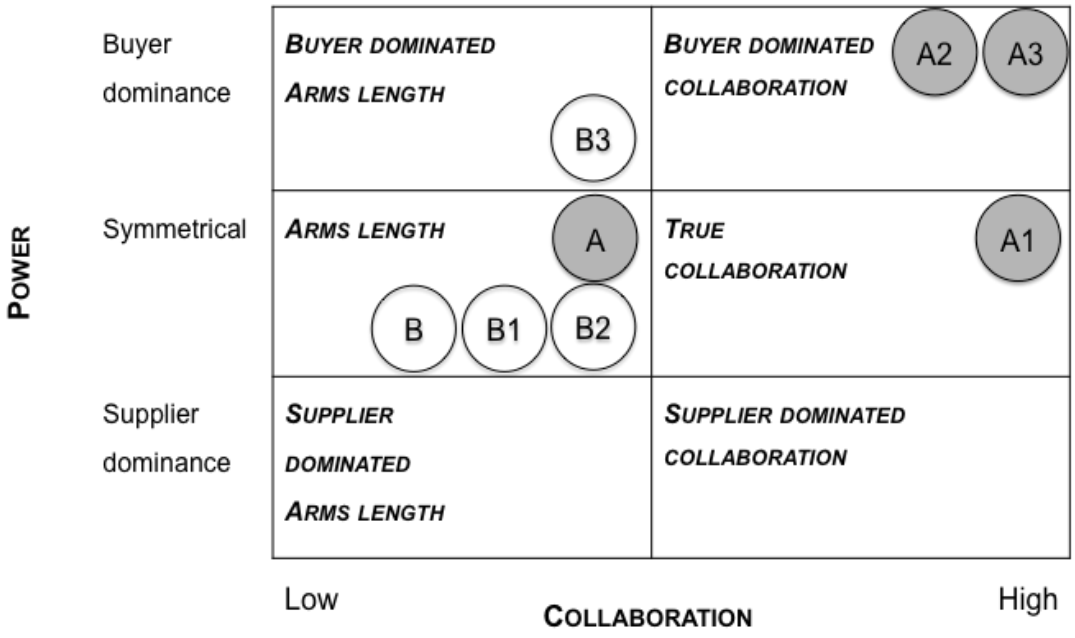

Figure 4-6 Relationship of the supply chain partners

The relationship between buyers and suppliers is fundamental to developing SSCM. Case A focused on the development and management of buyer–supplier relationships, while case B did not seem to pay much attention to supplier development. Case B suppliers relied on trust for sustainability diffusion.

SMEs in the supplier network are in either buyer-dominant, symmetric or supplier-dominant power situations. The power position is affected by the role of each partner in the provider network and the type of relationship with other organisations in the supplier network. It is argued that the power position is determined based on the ownership of scarce resources and capabilities (Tang and Tang, 2012). It is evident that first-tier brand A1 used standards, certifications and auditing to extend sustainability. The adoption of compliance-based approaches is incapable of dealing with all issues associated with supplier monitoring and verifications.

4.9.4 Social network theory

SNT focuses on structural and relational aspects of the network and how these contribute to organisational outcomes. Its emphasis is on intangible resources of connections, information and relationships (Autry and Griffis, 2008), which greatly affect how organisations achieve their goals. The studied SMEs had structured their supply chains differently, with varied interactions and complexity. This indicates that there cannot be a single defined approach in this context.

Of the two supply chains, supply chain B had the simplest supply chain structure. Supplier choice was strongly influenced by geographical proximity (e.g. proximity to brand B1). Brand B1 built its supply chain to develop local supply, higher quality and durability. Having a limited product range reduced supply chain complexity, enabling the brand to use unique supplier resources, in terms of product development and innovation skills and relationships. Their focus on building strong ties with more local suppliers in Scotland reflected long-term strategies that improved supply chain visibility, reliability and control.

Brand A1 had a wider product range and relied on a wide range of mainly small specialist suppliers that extended beyond Europe. They operated with a managed network of suppliers and there was a growing level of interaction between suppliers. This contributed to a pattern of ties that enabled a more efficient use of resources across the supply chain. The owner was very aware of how its supply chain structure

and the strong ties developing between all actors contributed to its ongoing success and growth. They actively looked to build and improve supply chain relationships through regular interaction and knowledge sharing. The collaborative partnership with the social organisation enabled them to establish the organic cotton initiative.

4.9.5 Entrepreneurship theory

Entrepreneurship orientates the organisational processes, structures and behaviours used to pursue innovative and entrepreneurial opportunities (e.g. Hall, Daneke and Lenox, 2010). ERT captures innovation with experiments that depart from established practices with proactive and risk-taking approaches. The social entrepreneurship literature claims that entrepreneurial action is needed to identify opportunities, create innovations and generate economic value while addressing ecological and social challenges (e.g. Schaltegger and Wagner, 2011; Burch et al., 2016).

The qualitative data reveal underlying processes, structures and entrepreneurial behaviour. The findings show dimensions of innovation regarding the use of alternative fibre, a proactive approach to the natural dyeing process and unique employee well-being programmes. Some innovation processes require attitudes of proactiveness, for example supplier A2's introduction of 'upmade' fashion items and attitude towards waste reduction and brand B1's efforts to durable design and product development. SSCM is also linked to an innovative dimension; for example, supplier A3 showed a proactive SSCM in supporting organic cotton and natural dying.

The term 'timeless and durable fashion' was used to describe brand B1's products. Brand B1 shows a strong vision about sustainability and quality with an indicative attitude towards long-lasting garments to minimise overconsumption and waste. It makes products from Harris Tweed fabric using in-house production facilities and local designers. The brand designer holds product quality and experiments with sustainability inspired materials and fabrics. The designer's entrepreneurship to create merchandise with low environmental impact and longevity helped the brand B1 develop a unique market share.

It is expected that modern SMEs will mirror LEs' sustainability practices. However, there is no one-size-fits-all solution. The findings indicate that SMEs may be involved in very limited SSCM. Leaders in SME put most sustainability practices in place; they guide with positive emotional response against unsustainable practices and voluntarily

devote profits to develop practically sustainability methods and perceive normative pressures to implement such practice.

The findings reveal a lack of support from the government. It is important that governments introduce supportive initiatives specific to SMEs. Equally important is to start thinking about ways to reduce the burden of third-party certification programmes. The social and environmental certifications act as the sole tool to monitor and verify sustainability practices but resource constraints hamper SMEs competing with larger-scale organisations with a greater number of sustainability-related standards and certification schemes. The adoption of certifications allows them to better manage the industry pressures and allow them to legitimise their position against competitors with a lack of resources and capabilities to implement more SSCM.

4.10 Application of the model

Owing to a lack of first-tier supplier and sub-supplier information, the research assumes that each buyer in the case supply chain purchased everything (100%) from a single supplier. The researcher fits the rating model proposed in Chapter 2.

Subjects derive from general themes extracted from the analysis stage and each topic is evaluated based on findings. The researcher as a third-party assessor allocates the performance measures based on conformity, non-compliance and anything in-between. The higher the score, the more sustainability motivated the organisation is. It is important to note that each supplier's sustainability performance has a ripple effect on the overall supply chain score because it is correlated with the upstream supplier's performance.

Subject Issues	A	A1	A2	A3	B	B1	B2	B3
Reliability	8	9	8	7	8	5	8	6
Reactivity	9	9	8	8	8	6	9	6
Flexibility	7	9	8	8	7	7	9	5
Financial performance	7	9	9	8	6	5	8	4
Quality	9	9	9	9	7	7	9	8
Environmental	8	8	8	7	6	5	8	6

Subject Issues	A	A1	A2	A3	B	B1	B2	B3
Resources	6	9	8	7	3	4	9	7
Pollution	3	8	8	7	6	4	8	7
Dangerousness of contents	9	9	9	8	9	8	7	8
Natural environment	7	8	8	7	8	6	8	7
Labour relations	9	9	9	9	9	7	8	9
Labour rights	9	9	9	9	9	7	8	9
Community participation	7	7	8	8	5	3	9	9
Consumers	9	9	8	8	8	6	9	7
Business practices	9	9	9	9	9	9	9	7
Total	116	130	126	119	108	89	126	105
Sustainability performance **Sustainability rating**	**86** **B**	**96** **A**	**93** **A**	**88** **B**	**80** **B**	**66** **D**	**93** **A**	**78** **C**
Supply chain sustainability performance and rating	**94** **A**	**91** **A**	**88** **B**		**76** **C**	**86** **B**	**78** **C**	

Table 4-14 Sustainability and supply chain sustainability performance

Based on the analysis, Table 4-14 shows that the two retailer sustainability scores are 86 and 80 for retailers A and B, respectively. Retailer A outperformed both in terms of an individual sustainability of 86 and a supply chain sustainability of 94, while retailer B scored sustainability of 80 and supply chain sustainability of 76. Similarly, first-tier brand A1 outperformed brand B1 with a business sustainability score of 96 against 66; however, they have upstream supply chain sustainability scores of 91 and 86. The scores highlight that brand A1 has superior business sustainability compared to brand B1. The uniqueness of the score is that each supplier could be assessed based on the sustainability score and compared against the competing organisation and supply chain based on multidimensional performance. The scores can be translated into ratings using the predetermined parameters discussed earlier.

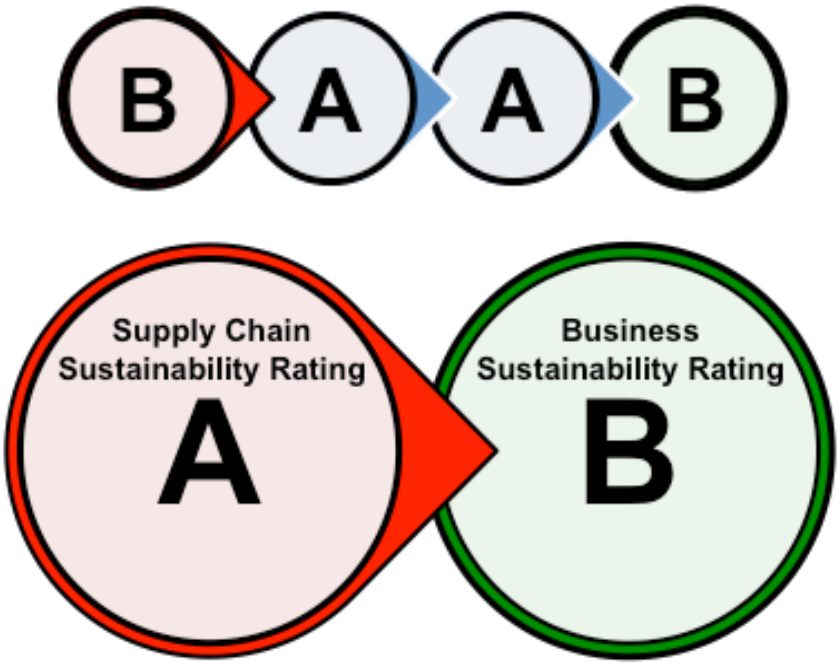

Figure 4-7 Sustainability performance rating for case A

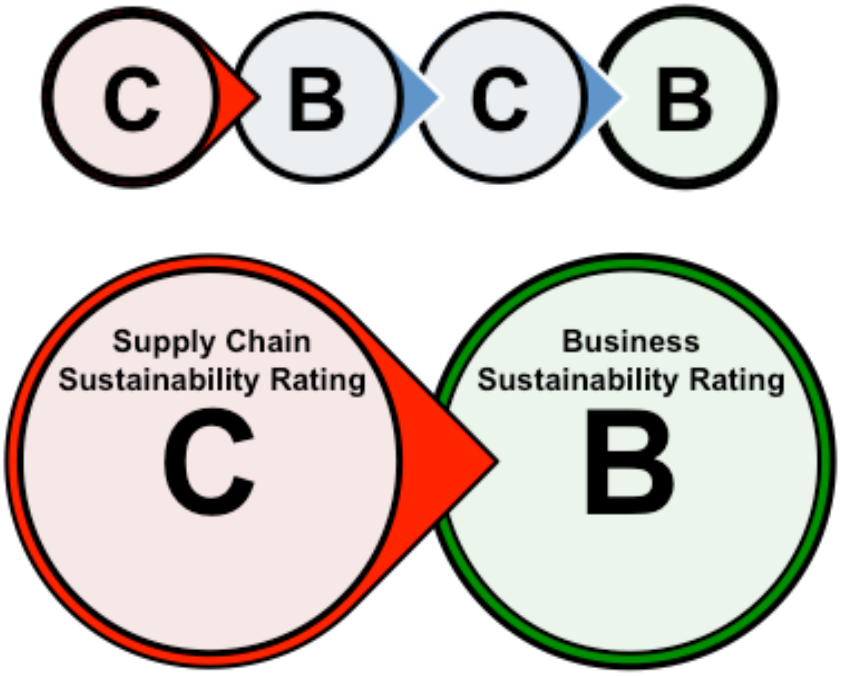

Figure 4-8 Sustainability performance rating for case B

Based on the analysis, both retailers scored B ratings, while the supply chain of retailer A outperformed on supply chain sustainability with an A rating over a C rating for supply chain B (see Figures 4-7 and 4-8). On closer examination, it is noticeable that lower sustainability performance of brand B1 affects the overall supply chain sustainability. The information could help practitioners identify low performance within the entire supply chain. This provides a structure that can be used by stakeholders as

a guide to strategic and operational plans for supply chain commitments and activities. The rating measure provides a basis for both researchers and policymakers to ask better questions and enable academics to shape future research. More importantly, it could be used as a consumer guide in making purchasing decisions based on multidimensional supply chain sustainability performance.

4.11 Summary of the chapter

This research focuses on actual practices within the sustainability context of two supply chain case studies. This study helps identify organisational sustainability practices and the diffusion of sustainability in supply chains.

The chapter evaluated the case study findings against the research questions and contributed to knowledge from the reviewed literature to understand the alignment and potential differences between the SSCM concept and SME supply chain practice within the fashion industry. The research acknowledged the need for industry-specific research and more understanding relating to SME sustainability practices (Hassini, Surti and Searcy, 2012). The theoretical lenses of RBV, INT, ST, ERT and SNT applied to the findings allowed for theoretical triangulation to develop novel perspectives of SSCM in this context.

The lenses emphasised the importance of relationships, innovation and intangible resources, and offer a more balanced and embedded SSCM. The studied retail SMEs tended to manage supply chains on an informal basis. The management relied heavily on trustworthy relationships. However, they were constantly challenged to find transparent sustainable partnerships and manage sustainability principles beyond organisational boundaries. These principles are required to enhance environmental and social performance and incorporate into organisational decision-making not as part of economic growth but as a genuine concern.

The supplier network investigation revealed that external stakeholder pressure and internal leadership determine SSCM behaviour. Upstream suppliers have more formalised approaches and rely on collaborative partnerships to expand SSCM. Evidence suggested some inconsistencies in collaborative relationship efforts. Both retailers took a similar position, with no effort to build collaborative relationships, while upstream supplier networks paid significant attention to developing relationships for mutual benefit. The research showed that international market conditions influence

suppliers to adopt enhanced SSCM practices, while local market-oriented supplier networks rely on national conditions to guide SSCM.

The biggest challenge is monitoring and verifying sustainability performance. SME retailers have no approach to monitoring or verifying compliance. However, evidence suggests that the most influential suppliers take a more active role in SSCM development. Internationally recognised standards and certifications play an important role in monitoring and verifying sustainability conditions within the supplier network.

Multiple theoretical lenses emphasised the importance of relationships, shared meanings and intangible resources, which allow a balance between the three sustainability dimensions and expand SSCM. The findings highlighted the importance of resources and capabilities to implement internal sustainability management first and move towards SSCM.

Based on the application of the rating model, this study concluded that both retailers achieved similar overall sustainability ratings, while the supply chain of retailer A outperformed the supply chain of retailer B based on its supply chain sustainability rating.

CHAPTER 5

5 Contribution and Research Implications

5.1 Introduction

The basic objective of research is to develop knowledge that translates into readily accessible and enduring information to business owners, researchers and practitioners. The thesis focused on how SME sustainability is operationalised and how current theory informs industry practice and contributes to the developing field of SSCM. Through a review of the relevant SME, sustainability and SSCM literature along with the primary investigation, the research was able to identify key knowledge gaps.

Theory development requires a rich description of the phenomenon studied, which is achieved through the collection and analysis of qualitative data, in-depth case studies of SMEs and supply chain supplier sustainability practices. Key emergent themes were analysed for theoretical lenses to answer the research questions. A multi-lens conceptual model was developed to explore how SMEs implement sustainability and diffuse sustainability in supply chain. This framework contributes to SSCM research by addressing the key gaps identified by the literature and developing a performance rating model of sustainability.

5.2 Research aims and investigation

As outlined in the introduction chapter, the research aims to broadly understand how sustainability is defined in from a fashion industry SME perspective and the role that supplier relationships and the specific characteristics of SMEs play in understanding and achieving SSCM. Table 5-1 illustrates the case findings and corresponding research aims.

Research Aims	Preliminary Investigation	Summary of Findings
Concept Definition	How is sustainability defined? How is sustainability interpreted in supply chain? How is sustainability defined in SMEs?	SMEs have their own interpretation of sustainability that is strongly aligned with owner-manager values and perceptions. SMEs recognise the three sustainability dimensions but principles and individual visions affect their priority. Sustainability in supply chain sustainability can enhance overall competitive advantage. Responsibility of diffusion of sustainability is with the most powerful partner within the supply network. SMEs go beyond compliance and engage in social sustainability actions that appear to beyond the interests of the organisation.
Business Practice	How do SMEs address sustainability? How do SME buying organisations diffuse SSCM? How do sustainability and SSCM affect the SMEs structure and process?	Lack of clear definition for sustainability a wide range of terms was used to describe identical or similar concepts/practices. Primarily through supplier selection, supplier performance assessment and supplier development. Emphasis is placed on the supplier with the most reputational risk, use of certification to influence sustainability in the supply chain. Use of auditing protocols to verify sustainability. Sustainability performance based on collaboration has a positive effect on overall performance. One SME with a global supply chain, while the other aims to achieve more local supply chains to minimize environmental impacts and control. Collaborative and innovative strategies, partnerships and networks enable sustainability goals.

Balance	How do SMEs prioritise multidimensional sustainability performance? How does sustainability performance affect supplier selection? How do SMEs evaluate supplier sustainability performance?	Evidence of recognition for the three dimensions. Evidence of greater emphasis on profit and people dimensions. None focus purely on economic performance. Priority on easy to implement, low-cost programs. Comprehensive assessment of all sustainability aspects on multi-tier levels combination of assessment of three dimensions will be required to allow the best possible decision making.
Theory	What theoretical constructs address SSCM? How can diffusion of SSCM inform theory? How do SME buying organisations influence and verify sustainability performance?	SMEs mainly focus on building long-term commitment and mutually beneficial supply chain relationships. Some of the relationships are based on trust, personal and they generate mutual understanding of sustainability principles and objectives. Evidence of resource constraints, particularly within retailers. More efficient and often innovative use of resources for environmental sustainability performance. Attempt to address internal environmental and social issues. Owner-manager principles have a significant impact on how effectively SSCM is addressed.

Table 5-1 Alignment of study aims and findings

5.3 Research contribution

This research provides much needed empirical insights on multitier sustainability in supply chain approaches, frameworks and models. By demonstrating the unexpected complexity in a SME fashion supply chain, this should cause theoreticians to consider the complex reality for a more orderly conceptions of SME supply chains. In addition, this thesis represents one of a very small number of research projects actively aiming to address all three dimensions within SCCM and does so by applying multiple theoretical lenses. This addressed some of the recognised limitations of current operations research methodologies that are biased towards tangible, measurable sustainability dimensions. Therefore, integrating non-measurable sustainability dimensions enabled a deeper, more nuanced understanding of SSCM.

5.3.1 Practical implications

The research findings offer several practical insights. The findings benefit SME owners and top management to enhance SSCM. The case study analysis demonstrates the importance of buying organisation taking more proactive leadership towards establishing SSCM. Also, to understand the circumstances under which sustainability practices can be diffused within the supply chain.

Results indicate that coercive pressure has a significant effect on sustainability practices and the diffusion of sustainability in supply chains. SMEs rely on recognised industry standards to influence supplier sustainability, while auditing aims to verify compliance. Some certifications require organisations to conduct periodic third-party audits. Therefore, standard specifications are set with supply chain partners; moreover, the approach works as a control and monitoring measure.

Sustainability is costly; SMEs benefit from support and guidance from the dominant supply chain partner(s). Collaborative efforts are critical because of SMEs' limited resources and capabilities. Results suggest that businesses are better served by collaborating with supply chain partners, who can provide resources and support. Where necessary, collaborative efforts with external parties are important for diffusing SSCM. Lack of knowledge of upstream suppliers could pose a threat to buying organisations, especially considering the reputational risk, as this means that the retailer does not have sufficient information about their supplier base sustainability performance.

Finally, the findings may be of value to owners, supply chain managers and business consultants who seek to determine sustainability practices for SMEs. The industry attracts significant public attention and organisations are required address social or environmental misbehaviour hidden in supply chains. To protect reputations, they are challenged to identify and address supplier and sub-supplier practices. In a similar way to traditional supplier management, SME retailers should assess supplier and sub-supplier sustainability compliance. Owing to the inherent limitations of small and medium-sized retailers, they lack the capacity to influence or verify suppliers' and sub-suppliers' sustainability performance. On the other hand, trust, collaboration and governance with strategic suppliers positively contribute to SSCM. The proposed conceptual rating model provides an opportunity to evaluate any supplier based on sustainability and supply chain sustainability as a basis for supplier selection. Different-sized and -shaped organisations will find a fit with the rating model as it provides transparency without inherent risk of supplier disclosure.

5.3.2 Theoretical implications

This thesis has made several theoretical contributions through its review of specific and previously unrelated bodies of literature and the application of multiple organisational management theoretical lenses. In addition, the development of a new conceptual framework offers a fresh view of SSCM is SMEs.

Literature

This research contributes to the literature as one of a small number to provide empirical evidence of SMEs' sustainability practices and integrating their multitier supply chain sustainability practices.

This study focused on a single, highly relevant industry (Carter and Easton, 2011). The scale, scope and global nature of the fashion industry has strong environmental and social implications, yet so far, the research focus has mainly on more large mainstream retailers' response to sustainability. The literature review expanded knowledge in SSCM research in SME which is currently underexplored. It addresses the recognised research bias towards LEs and identified gaps in the current SME literature on SSCM. Reviewing SME supply chains through a sustainability lens opens novel research areas within the SSCM field. Current bias towards qualitative approaches and research focus on theory development demonstrate the developing nature of the research field.

The review of the sustainability, management and sustainability in supply chain management literature support the research understanding and knowledge gap. A key gap in current research is the imbalance between the three dimensions of sustainability; organisational practice tends to be biased towards economic performance, with an awareness of the environmental and social elements but inadequate application of social performance. The social dimension is significantly underrepresented in the SSCM literature, along with knowledge of how supply chain relationships help address a balanced approach to sustainability. Research findings shows that SMEs have a better understanding and application of social performance.

Multiple theories

The use of multiple theoretical lenses allowed valuable insights. This original and novel conceptual framework adopts on multiple established organisational theories to examine factors impelling SMEs to diffuse sustainability. This provides a framework to fully analyse the influence and verification of SSCM in SMEs.

The within- and cross-case analyses identified a range of different themes related to SME characteristics, supplier selection, supplier performance evaluation and supplier development. Findings reveal the need for long-term, trust-based relationships. Investigated SMEs rely on informal and personal supply chain relationships, with owner-manager principles strongly influencing these relationships. However, more dominant buying organisations in the supply chain embrace formal sustainability approaches and apply established standards and certifications to maintain environmental and social commitments in their supply chain. They can rely on rewards or threats to influence sustainability.

This research addresses some of the recognised limitations of current operations research, which tends to use a narrow range of methodologies and quantifiable techniques.

This research proposes an easy to evaluate sustainability performance tool for practitioners.

Conceptual framework

Existing models inform the conceptual framework; however, the conceptual framework evolved from this research is entirely original, which is focused on SMEs in the fashion industry and underexplored SSCM research. This research is one of the very few if not

the only research projects that integrate the multidimensional sustainability performance in SMEs multitier supply chain.

A key contribution is to expand the current understanding of sustainability and SSCM and develop a conceptual SSCM framework that offers a more balanced, interrelated and embedded view of SME efforts to diffuse sustainability in supply chains.

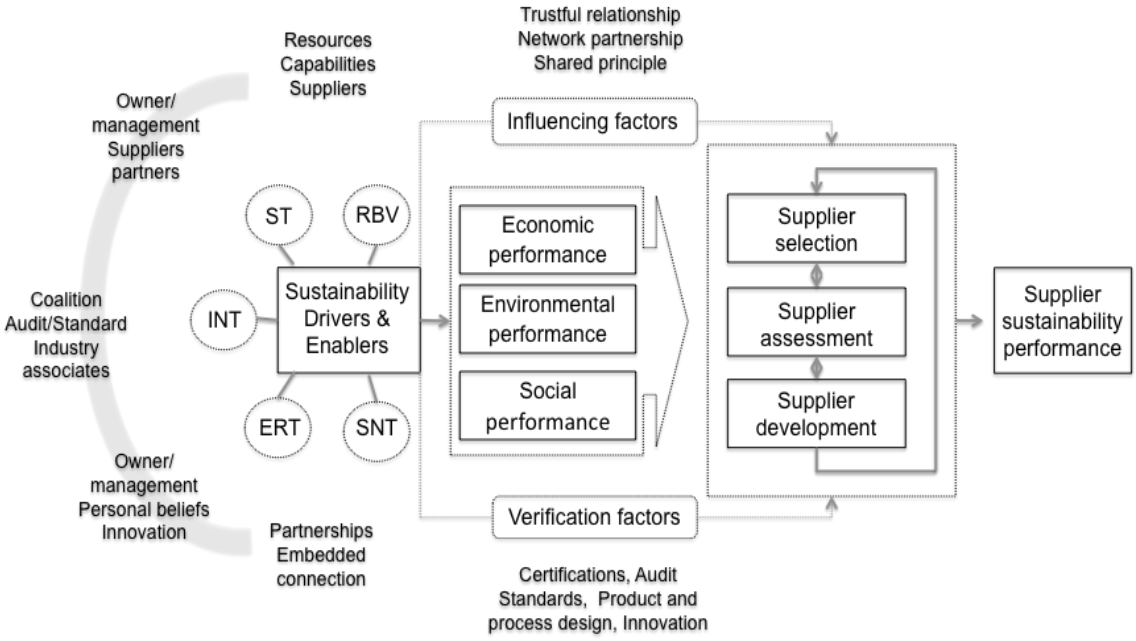

Figure 5-1 Conceptual framework for sustainability in supply chains

The conceptual framework depicted in Figure 5-1 contribute to knowledge by introducing SME sustainability drivers and enablers that are conceptualised through theoretical lenses to offer a richer perspective of SSCM. This study integrates economic, environmental and social performance without making any sustainability dimensions explicit and thus encouraging trade-offs or prioritising a single specific dimension. Thus, this research bridges a gap in factors influencing multidimensional performance which underrepresented in current frameworks. The framework innovatively explores both quantifiable and non-quantifiable environmental and social dimensions, addressing the overall performance within the SSCM frameworks.

Sustainability framework

This research implemented the TBL framework, which highlights themes of each sustainability dimension. As presented ‘planet’ and ‘people’ categories were markedly fuller, leading to the preliminary conclusion that fashion industry SME sustainability

focuses more on environmental and social performance. The structural and behavioural change model in section 4.7.2 highlighted the themes focusing on the 'profits' aspect requires the least amount of structural change and therefore require the least amount of organisational effort.

Organisations focus on 'people'-based behaviours because they are relatively easy and cost less to achieve and they can be used to convince stakeholders. SMEs in the fashion industry often shows preference for specific, relatively easy, cost-effective sustainability behaviours to strengthen the overall organisational image and meet stakeholder expectations.

However, since it does not take much effort to conduct these behaviours, it is questionable how SMEs can distinguish themselves to create competitiveness in this way. Simple sustainability behaviours can perhaps come across as greenwashing for marketing, reputation and growth. People-centric sustainability has become an industrial norm and part of normal business behaviour within the fashion industry.

This research found that, within the boundaries of the organisation, core behavioural change is required for community-focused behaviours. It could be argued that behaviours within the boundaries of the organisation are more manageable than extended supplier behaviour. Thus, SSCM behaviours within multidimensional perspectives become challenging. As discussed earlier, fashion industry supply chains are often complex, so maintaining supplier networks becomes a major obstacle.

Based on the results, it is evident that, even though there is a lack of customer expectation, organisations focusing on the 'planet' and 'people' dimensions can establish a 'niche' market. The findings help SMEs in the industry to identify further opportunities. The findings suggest that the most discussed sustainability behaviour relates to 'planet', which is not a requirement for organisational survival. This falls into the conception of beyond normal business practice. As such, SMEs distinguish themselves from competitors by focusing more on 'planet'-based sustainable behaviour. The 'people' or social aspect is well elaborated upon but the simple nature of the organisation's efforts could create uncertainly about the true motive. In order to gain competitive advantage organisations are driven to adopt behaviours that are valued by society, which may not yet be industry standard. However, it is important to note that, if societal demand for sustainability persists, then the need to manage stakeholders will cause it to become normal business practice. While this may be good

for society, it may no longer be a distinguishing factor for the organisations, so no longer generating competitive advantage.

Presenting the TBL concept with specific and normal business practices along with the structural and behavioural change model can be a significant step towards sustainability and the sustainability in supply chain. Stakeholders can evaluate SMEs' behaviour based on the effect on the organisations' structure and behaviour. Sustainability initiatives could be deliberate, rather than just developing random sustainability projects.

This research provides qualitative criteria against which SME behaviours can be measured to create a more honest overview of sustainability practice. The proposed sustainability performance model incorporates multidimensional sustainability measure to create a simple rating that can evaluate sustainability performance of the individual organisation and the entire supply chain. The sustainability performance model helps retail management make more informed sourcing decisions without solely depending on supplier disclosures. The model can be beneficial in supplier selection and sustainability decision-making. Additionally, it provides fashion industry insights into gaps and opportunities in current organisational sustainability practice and sustainability supply chain practices, which offers stakeholders a better understanding of overall practices.

The findings contribute to the general SCM literature by providing evidence that small and medium-sized retailers are not in a position to influence supplier or sub-supplier behaviour. However, first-tier brands are in a position to influence supplier and sub-supplier behaviour through various managerial practices, including 'assessment', 'certifications', and 'collaboration'. Irrespective of the position in the supply chain, the process of monitoring and verifying compliance with sustainability criteria presents a considerable challenge. It also makes a significant difference if generally accepted external systems or methods of verification are available along with an appropriate verification infrastructure.

As the industry develops sustainability practices and the latest sustainability focused business models like 'circular sustainability', 'cradle to cradle' or 'blue economy', more research will be needed, using these frameworks as theoretical support. These research trajectories can help organisations understand the specific causes of

behaviour and lead to policy strategies that impact the conditions under which the SMEs operate to encourage behaviour that is more responsible.

5.4 Limitations

Finally, it is helpful to acknowledge some limitations of this study. First, the analysis is on two small and medium-sized retailers and their supplier networks in the fashion industry. Investigating larger retailers or different industries may reveal further insights and the opportunity to draw more generalised conclusions.

There are also some concerns when working with self-reported data, particularly sustainability-related information. Because sustainability can serve as a marketing tool, it is difficult to assess how substantial these practices actually are. It is safe to assume that activities that are part of normal business practice are thoroughly carried out, but, for others, this is a complex issue to control. To mitigate this effect, this study triangulated the secondary data with interviews for greater validity. However, secondary data were not available for all the supply chain partners.

When analysing the sustainability rating, it is assumed that each buyer has only a single supplier, e.g. a retailer has only one first-tier supplier, and that supplier only has one single supplier. The study made these assumptions mainly due to the participants' inability to identify suppliers beyond the first tier and then lack of willingness by the suppliers to disclose sub-supplier information. It is important to note that the novelty and complexity of the production process and supply chain make it challenging, especially for a small or medium-sized organisation, to maintain all supplier records.

Further, given the impact that the fashion industry has on society, it is important to understand the role of independent auditors' monitoring and verification of sustainability behaviours. Such an approach helps stakeholders to be able to obtain accurate and valuable information. The auditing requirements have become an industry norm. However, for the purpose of the study, the research assumes that the auditing mechanism is flawless.

Another limitation is that much of the classification relies on the researcher's interpretation of the themes. This is a common criticism in qualitative research. For this reason, the study has added a description to each theme. Moreover, the research triangulated several sources, the analysed text, secondary data, organisational theory, and tertiary information about the fashion industry.

The final limitation is the focus on a single industry. While the magnitude and global importance of the fashion industry warrants a study of type, it does limit generalisability.

5.5 Future research

The study and the sustainability performance model could be directly replicated in more SMEs not only in the fashion industry but also in various other industries. This research focused on SMEs and their manufacturing supply chain leading manufacturing within the fashion industry. Different size, sector and industries could be involved.

The research draws conclusions based on qualitative methods through case studies. In order to increase the external validity, a larger sample of organisation adopting quantitative research could be beneficial. Further testing of the model is needed to develop a more coherent performance evaluation.

Future research to shift from current dominance of case studies and surveys to other methodologies to testing rather than developing theory. This represents a key area for future research. A lack of qualitative focus to date reflects the challenge of research the field. One of the main challenges in the research field is to develop more consistent frameworks as well as tools to capture the evolving field of SSCM.

Literature in the field has been focused more on quantifiable practices and easy to green processes rather than embedded principles and the more intangible aspects of supply chain relationships. This needs to be examined in more depth and tested.

Research findings suggest that supplier selection, supplier performance evaluation, supplier development as well as formation of supply chain structures may change and become more formalised as an organisation matures, which impact sustainability and sustainability in supply chain principles. It is appropriate to further investigate the diffusion of sustainability in supply chain to develop a comprehensive framework for the whole industry.

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7 Appendices

7.1 Appendix A: Sustainability performance measures

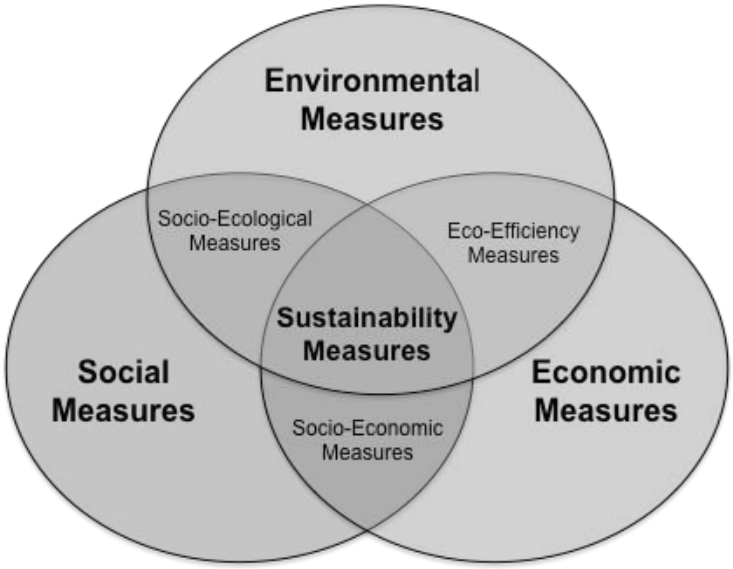

Figure 7-1 Visual depiction of common measurements

Life-cycle assessment (LCA) is one of the commonly adopted models. The concept breaks down the product from birth to grave. LCA was initially developed to evaluate environmental conditions later social life-cycle assessment (SLCA) model included the social conditions. Critiques suggest that LCA improves existing product designs but fails to evaluate sustainability performance (Petti, Serreli and Di Cesare, 2018).

Labuschagne, Brent and Van Erck (2005) propose a conceptual framework to assess overall performance. However, it fails to evaluate the overall supply chain performance. Singh et al. (2007) present a method for developing a composite overall performance index. Singh et al. suggest aggregating three sustainability sub-indices and representing three durable performance measures. However, this should be viewed with caution, as the simple aggregation method does not match the concept of sustainability. It is difficult to capture the interrelationships between individual dimensions and often suggest that equal weighting is not adequately justified (Greco et al. 2017).

Carbon Disclosure Project (CDP) is another globally recognised supplier disclosure initiative that monitors water consumption, deforestation, climate change, and environmental threats (Karaosman, Brun and Morales-Alonso, 2017). The Dow Jones Sustainability Index (DJSI) is a framework, which monitors publicly traded organisations. Other well-recognised frameworks such as ISO standards are internationally recognised certification scheme for greenhouse gas reduction.

GRI is one of the commonly adopted reporting tools. GRI is flexible yet straightforward accounting and reporting framework. GRI is ‘built upon a series of hierarchically designed indicators for efficiently reporting impacts on the environment and the society’ (McElroy, Jorna and van Engelen, 2008, p. 224). GRI is voluntary reporting tool on the TBL impacts of activities, products, and services. The GRI sets out principles and specific content to help guide the development of sustainability reporting at the organisational level. Further, GRI entail comparing sustainability indicators and no single organisation underperforms (or

outperforms) competitors on all the GRI indicators, thus makes it difficult for the reader to determine who performs better. This leads to a more subjective decision-making.

GRI has been gaining widespread recognition among LEs (Brown, De Jong and Levy, 2009) however, it is meant to be applicable to organisations of any size (or sector) (Medel et al., 2011). Even though the GRI framework does define a protocol for each indicator, they are less applicable to SMEs. However, GRI is committed to provide more reporting guidance to SMEs. However, the amount of indicators in GRI makes the reporting process too costly especially considering the volume of data to be collected and analysed (Dillard et al., 2010). Further, it has been a particularly challenging for SMEs since there are number of constraints such as a lack of expertise, time, and resources. As a result, SMEs struggle to absorb GRI framework. Some of the concerns are not explicit in GRI as they are evident in other sustainability reporting tools. Therefore, the nature of sustainability reporting requires simplification and adoptable to a particular reality.

Table 7-1 highlights the strengths and weaknesses in such widely used sustainability reporting frameworks.

MODEL	STRENGTHS	WEAKNESSES
ISO Standards (e.g. ISO 14000, 26000)	Widely known and used by businesses. Global acceptance across industries. Definition of basics and overarching principles. Continuous update and development.	Partial coverage (no standard for integrated assessment). Lack of tangible evaluation framework (e.g. criteria). Limited disclosure. Lack of ability to enforce.
Carbon Disclosure Project (CDP, 2014)	Used by large corporations worldwide. Credible and standardised sustainability information for corporate investors. Concrete evaluation tool, ease of use.	Focus on environmental performance (e.g. carbon footprint, water, and energy consumption). Targets large organisations (e.g. FT Global 500) for public disclosure. Highly descriptive reporting.
Global Reporting Initiative (GRI, 2013)	Global recognition and wide usage across countries and industries. Provision of evaluation and reporting template. Ease of use, accumulated experience and continuous development.	Flexible selection of criteria, leading to over or under reporting. Open to subjective, biased and oral evaluations. Primary focus on reporting. Lack of auditing.
Stock Exchange Sustainability Indices; (DJSI, 2014)	Public disclosure of sustainability performance as an additional investment parameter for individual and corporate investors. Incentive for organisations to be listed for increased investor interest Standard methodology.	Over simplified sustainability evaluation methodologies. Limited information disclosure by organisations. Limited focus (mostly environmental management and regulatory compliance). Lack of standards.

Table 7-1 Comparison of sustainability evaluation tools
Adopted from Büyüközkan and Karabulut (2018, p. 257)

SMEs are only marginally embedded in existing frameworks. There continues to be a lack of tools to assess sustainability in supply chains (Chen et al., 2014). Many authors highlight the need for further research in assessment and analytical models that integrate supply chain performance (Varsei et al., 2014).

7.2 Appendix B: Performance measurement criteria against GRI

SUBJECT ISSUES	SUB ISSUES	GRI ECONOMIC PERFORMANCE INDICATORS
Reliability	Customer service Service providers Stock reliability Reliability of forecasts	EC1 Direct economic value generated and distributed, including revenues, operating costs, employee compensation, donations and other community investments, retained earnings, and payments to capital providers and governments. EC2 Financial implications and other risks and opportunities for the organization's activities due to climate change. EC3 Coverage of the organization's defined benefit plan obligations. EC4 Significant financial assistance received from government. EC5 Range of ratios of standard entry level wage by gender compared to local minimum wage at significant locations of operation. EC6 Policy, practices, and proportion of spending on locally-based suppliers at significant locations of operation. EC7 Procedures for local hiring and proportion of senior management hired from the local community at locations of significant operation. EC8 Development and impact of infrastructure investments and services provided primarily for public benefit through commercial, in- kind, or pro-bono engagement. EC9 Understanding and describing significant indirect economic impacts, including the extent of impacts.
Reactivity	Reactivity in the design Procurement responsiveness Responsiveness of supply Responsiveness of sales - administration Production responsiveness Distribution responsiveness Reactivity management	
Flexibility	Flexibility of suppliers Supply flexibility Production flexibility Distribution flexibility	
Financial Performance	Financial performance of the design Financial performance of procurement Financial performance of supplies Financial performance production Financial performance distribution Financial performance returns - management flow Overall financial performance of the - supply chain	
Quality	Quality of the product/service Quality performance of suppliers Quality of production	

Subject Issues	Sub Issues	GRI Environmental Performance Indicators
Environmental	Environmental budget Environmental certification Environmental compliance Employee involvement	EN1 Materials used by weight or volume. EN2 Percentage of materials used that are recycled input materials. EN3 Direct energy consumption by primary energy source. EN4 Indirect energy consumption by primary source. EN5 Energy saved due to conservation and efficiency improvements. EN6 Initiatives to provide energy-efficient or renewable energy based products and services, and reductions in energy requirements as a result of these initiatives. EN7 Initiatives to reduce indirect energy consumption and reductions achieved. EN8 Total water withdrawal by source. EN9 Water sources significantly affected by withdrawal of water. EN10 Percentage and total volume of water recycled and reused. EN11 Location and size of land owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas. EN12 Description of significant impacts of activities, products, and services on biodiversity in protected areas and areas of high biodiversity value outside protected areas. EN13 Habitats protected or restored. EN14 Strategies, current actions, and future plans for managing impacts on biodiversity. EN15 Number of IUCN Red List species and national conservation list species with habitats in areas affected by operations, by level of extinction risk. EN16 Total direct and indirect greenhouse gas emissions by weight. EN17 Other relevant indirect greenhouse gas emissions by weight. EN18 Initiatives to reduce greenhouse gas emissions and reductions achieved. EN19 Emissions of ozone-depleting substances by weight. EN20 NO, SO, and other significant air emissions by type and weight. EN21 Total water discharge by quality and destination. EN22 Total weight of waste by type and disposal method. EN23 Total number and volume of significant spills. EN24 Weight of transported, imported, exported, or treated waste deemed hazardous under the terms of the Basel Convention Annex I, II, III, and VIII, and percentage of transported waste shipped internationally. EN25 Identity, size, protected status, and biodiversity value of water bodies and related habitats significantly affected by the reporting organization's discharges of water and runoff.
Resources	Renewable energy Water Recycling inputs, outputs Waste	
Pollution	Air pollution Water pollution Soil pollution Other pollution	
Dangerousness of Contents	Hazardous inputs, outputs Dangerous, hazardous waste	
Natural environment	Eco-systemic services Biodiversity Use land Development of urban and rural areas	

Subject Issues	Sub Issues	GRI Social Performance Indicators
Labour relations	Employment, working conditions, social dialogue, health and safety, human resources development	LA1 Total workforce by employment type, employment contract, and region, broken down by gender. LA2 Total number and rate of new employee hires and employee turnover by age group, gender, and region. LA3 Benefits provided to full-time employees that are not provided to temporary or part- time employees, by significant locations of operation. LA15 Return to work and retention rates after parental leave, by gender. LA4 Percentage of employees covered by collective bargaining agreements. LA5 Minimum notice period regarding operational changes, including whether it is specified in collective agreements. LA6 Percentage of total workforce represented in formal joint management–worker health and safety committees that help monitor and advise on occupational health and safety programs. LA7 Rates of injury, occupational diseases, lost days, and absenteeism, and total number of work-related fatalities, by region and by gender. LA8 Education, training, counseling, prevention, and risk-control programs in place to assist workforce members, their families, or community members regarding serious diseases. LA9 Health and safety topics covered in formal agreements with trade unions. LA10 Average hours of training per year per employee by gender, and by employee category. LA11 Programs for skills management and lifelong learning that support the continued employability of employees and assist them in managing career endings. LA12 Percentage of employees receiving regular performance and career development reviews, by gender. LA13 Composition of governance bodies and breakdown of employees per employee category according to gender, age group, minority group membership, and other indicators of diversity. LA14 Ratio of basic salary and remuneration of women to men by employee category.
Labour rights	Forced labor and children, freedom of association, discrimination	
Community participation	Local roots, education, culture and technological development, job creation, health, societal investment	
Consumers	Marketing and information, health and safety, protection of Privacy, access to essential services	
Business practices	Corruption, competition, sphere of influence	

7.3 Appendix C: Summary of studies using single theoretical lens

THEORY	KEY SOURCES	DESCRIPTION
STAKEHOLDER THEORY	Freeman (1984) and Mitchell et al., (1997)	defines a stakeholder as "any group or individual who can affect or is affected by the achievement of the organization's objectives." Mitchell et al., (1997) classification recognizes three stakeholder attributes: power, legitimacy, and urgency.
RESOURCE-BASED VIEW	Barney (1991)	The resource-based view emphasizes specific resources that explain the unique, competitive advantage of firms and mechanisms that prevent competitors from acting the same way. Resources are defined as "all assets, capabilities, organizational processes, firm attributes, information, knowledge, etc. controlled by the firm that enable the firm to conceive and implement strategies that improve its efficiency and effectiveness" (Barney, 1991, p. 101). Resources must be valuable, rare, difficult to duplicate, and non-substitutable to contribute to sustained competitive advantage.
NATURAL RESOURCE BASED VIEW	Hart (1995)	Hart (1995) suggests that competitive advantage and management strategy should be rooted in capabilities that facilitate environmentally sustainable economic activities. The natural resource-based view is "a theory of competitive advantage based upon the firm's relationship to the natural environment. It is composed of three interconnected strategies: pollution prevention, product stewardship, and sustainable development." Hart (1995, p. 986)
INSTITUTIONAL THEORY	Scott, (1995; 2001)	"Institutions are social structures that have attained a high degree of resilience. [They] are composed of cultural-cognitive, normative, and regulative elements that, together with associated activities and resources, provide stability and meaning to social life. Institutions are transmitted by various types of carriers, including symbolic systems, relational systems, routines, and artifacts. Institutions operate at different levels of jurisdiction, from the world system to localized interpersonal relationships. Institutions by definition connote stability but are subject to change processes, both incremental and discontinuous" Scott (1995, p.33)
SOCIAL NETWORK THEORY	Håkansson and Snehota (1995); Nahapiet and Ghoshal (1998); Uzzi (1997) and Gulati et al., (2000)	Network theory includes different theoretical approaches focusing on interrelationships or of relationships within a network. Social network analysis describes and analyzes the linkages among actors. The individuals, a group (e.g., a department), or organizations within a network. Social capital between individuals or groups may also be analyzed. The business network (IMP) perspective examines resources, activities and actors within networks.
DYNAMIC CAPABILITIES VIEW	Teece et al., (1997)	The dynamic capabilities view addresses the question of how firms can cope with changing environments and focuses on the issue of competitive survival. Dynamic capabilities are defined as "the firm's ability to integrate, build, and reconfigure internal and external competences to address rapidly changing environments" (Teece et al., 1997, p. 516).
OTHER		The 'Other' category includes several additional single theoretical lenses from which global value chain theory, organizational support theory and Kantian ethics were used the most frequently

7.4 Appendix D: Sample interview questions

Queen Margaret University

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Sample Interview Questions

Note: The researcher have predetermined research issues to explore, but will also allow freedom for the interviewee to bring up issues important to him or her. Also, research will guide his next question based on the response of the previous question whether to change the order of questions, or to probe and get the subject to open up.

Participants Profile:

1. Would you tell me a brief bit about yourself?
    - Role in the organisation
    - Education background
    - Cultural background
    - Career history

Business Profile:

2. Would you give me a brief about your company?
    - Nature of the business
    - Who and Why started
    - Number of employees
    - Who are the stakeholders
    - Business purpose

Concept Understanding:

3. How would you in your words define 'corporate social responsibility (CSR)'? What does it mean to you?

4. How would you see the organisation contributing to the social good? Will you be able to provide examples of organisational practices that can be considered voluntary? What motivators your organisation to practise these?

5. What do you see as the key social issues in your industry?

6. What action have your organisation taken to address these issues? Is it worth the effort? What benefits if any to your business do you think it might have?

7. Are you familiar with the term 'sustainability'? How would you define sustainability? What does it mean to you? Do you see difference in the two terms?

8. How important sustainability to your organisation? And Why? What actions the organisation practise achieve sustainability?

9. What are the key economic performance indicators? What are the key social performance indicators? What are the key environmental performance indicators within your industry? Please rank them in order of the importance to you or your organisation.

10. Are you familiar with your organisations supply chain? How important is it? Why it is important?

Organisations Participation:

11. Key factors your organisation consider when selecting the suppliers? Why they are important? Do they meet the organisations purpose?

12. Is your organisation supply chain local? Do you see them as socially responsible? Does your supplier align with your social practise?

13. How do you monitor their social practise? What tools and measurement do you use? What are the challenges in monitoring their social practise of they are local and challenges if they are global?

14. How would you describe the relationship with your suppliers? How valuable are these relationship? What action do you engage in to maintain and/or develop these relationships?

15. How would you describe your relationship with your other stakeholders (i.e employees, community, government, NGO's etc)? How valuable are these relationship? What action do you engage in to maintain and/or develop these relationships?

16. What are the main challenges in implementing social practise within your supply chain?

17. Do you see a use of a metrics as a guide to selecting social responsible suppliers?

7.5 Appendix E: Consent form & Information sheet

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Consent Form

"Multi tier upstream supply chain responsibility in the Scottish small and medium retail clothing enterprises"

I have read and understood the information sheet and this consent form. I have had an opportunity to ask questions about the research and my questions have been answered to my satisfaction.

I have been told that my responses will be kept strictly confidential.

I understand that I am under no obligation to take part in this study.

I understand that if at any time during the interview I feel unable or unwilling to continue, I am free to leave. In addition, should I not wish to answer any particular question or questions, I am free to decline.

I agree to participate in this study. My signature is not a waiver of any legal rights. Furthermore, I understand that I will be able to keep a copy of the informed consent form for my records.

Name of participant: _____

Signature of participant: _____

Signature of researcher: _____

Date: _____

Contact details of the researcher

Name of researcher: Joseph Tivanka Croos Moraes

Address: PhD Student, Business, Enterprise and Management School
Queen Margaret University, Edinburgh
Queen Margaret University Drive
Musselburgh
East Lothian EH21 6UU

Email / Telephone: JCroosMoraes@qmu.ac.uk / 0131 474 0000

Queen Margaret University

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Information Sheet for Potential Participants

My name is Joseph Tivanka Croos Moraes and I am a Doctoral student from the School of Business, Enterprise and Management at Queen Margaret University in Edinburgh. As part of my research degree course, I am undertaking a research project for my PhD.

The title of my project is: Multi tier upstream supply chain responsibility in the Scottish fashion SME's.

This study will investigate how Scottish fashion SME's commit to responsible business has implemented their sustainability commitment within their own and beyond their own business premises (i.e., within the supplier base). The researcher aims to investigate factors that influence sustainability and sustainable supply chain as well as examine adopted organisations practices to verify sustainability in the supply chain with the overall view to improve multidimensional performance. The findings of this project will be valuable because the researcher intend to develop a sustainability performance evaluation model that will guide management sourcing decision.

I am looking for small and medium business owners and/or managers who are responsible in making strategic decisions in term of supplier selection/sourcing and sustainability development to participate in this research.

If you agree to participate in this study, you will be asked to participate in a short interview. The researcher does not foresee any risks associated with the interview/s. The whole procedure should take no longer than 40-60 minutes. You will be free to withdraw from the participation at any stage and you would not have to give a reason.

All data will be anonymised as much as possible, but you may be identifiable from tape recordings of your voice. Your name will be replaced with a participant number, and it will not be possible for you to be identified in any reporting of the data gathered.

The results may be published in a journal or presented at a conference.

If you would like to contact an independent person, who knows about this project but is not involved in it, you are welcome to contact Mr Mike Pretious. His contact details are given below.

If you have read and understood this information sheet, any questions you had have been answered, and you would like to be a participant in this study please continue to the consent form.

Contact details of the researcher

Name of researcher: Joseph Tivanka Croos Moares

Address: PhD Student, Business, Enterprise and Management School
Queen Margaret University, Edinburgh
Queen Margaret University Drive
Musselburgh
East Lothian EH21 6UU

Email / Telephone: JCroosMoraes@qmu.ac.uk / 0131 474 0000

Contact details of the independent adviser

Name of adviser: Mr Mike Pretious

Address: Senior Lecturer in Management
Business, Enterprise and Management School
Queen Margaret University, Edinburgh
Queen Margaret University Drive
Musselburgh
East Lothian EH21 6UU

Email / Telephone: MPretious@qmu.ac.uk / 0131 474 0000

7.6 Appendix F: Ethical application

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For Office Use Only

Ref. Number	
Assigned Reviewers	
Outcome	☑ Granted ☐ Amendments ☐ Rejected

APPLICATION FOR ETHICAL APPROVAL
FOR A RESEARCH PROJECT

This is an application form for ethical approval to undertake a piece of research. Ethical approval must be gained for any piece of research to be undertaken by any student or member of staff of QMU. Approval must also be gained by any external researcher who wishes to use Queen Margaret students or staff as participants in their research.

Please note, before any requests for volunteers can be distributed, through the moderator service, or externally, this form MUST be submitted (completed, with signatures) to the Secretary to the Research Ethics Panel (ResearchEthics@qmu.ac.uk).

You should read QMU's chapter on "Research Ethics: Regulations, Procedures, and Guidelines" before completing the form. This is available at: http://www.qmu.ac.uk/quality/rs/default.htm

The person who completes this form (the applicant) will normally be the Principal Investigator (in the case of staff research) or the student (in the case of student research). In other cases of collaborative research, e.g. an undergraduate group project, one member should be given responsibility for applying for ethical approval. For class exercises involving research, the module coordinator should complete the application and secure approval.

The completed form **should be typed** rather than handwritten. **Electronic signatures** should be used and the form should be **submitted electronically**.

Checklist: Documents enclosed with application:

Please note that any application with missing relevant documentation will be returned to the applicant.

Enclosed (please tick)	Not applicable (please tick)	Document name
☑	☐	**Research protocol or proposal**
☑	☐	**Participant Information Sheet(s) (PIS)**
☑	☐	**Participant consent form(s)**
☐	☑	**Copies of recruitment advertisement material**
☑	☐	**Sample questionnaires (please detail below)**
☐	☑	**Interview schedules or topic guides**
☐	☑	**Letter(s) of support from any external organisations involved in the research**
☐	☑	**If interacting with potentially vulnerable groups, please provide the following information for checks by authorised personnel:** **PVG[1] Membership No:** **Disclosure Number (unique to each certificate):** **Date of issue:**
☐	☑	**Risk assessment documentation**
☐	☑	**Any other documentation (please detail below)**

[1] Protecting Vulnerable Groups – This membership scheme was introduced by the Scottish Government to improve disclosure arrangements for people who work with vulnerable groups. When you provide us with the certificate identification number for your PVG status, only authorised countersignatories for this scheme within the university will have access to your PVG records. The Research Ethics Panel and assigned reviewers will not have access or knowledge of your PVG records. Please be aware that if you are barred from working with the research population in your research application, and the PVG countersignatories have been made aware of your application, processes for Fitness to Practice will be triggered within the university.

Section A: Applicant details

A1. Researcher's name: Joseph Croos Moraes
a. Post: PhD Student
b. Qualifications: CIMA, PgD, MBA
c. Contact email: JCroosMoraes@qmu.ac.uk

A2. Category of researcher (please tick and enter title of programme of study as appropriate):

☐	QMU undergraduate student Title of programme:
☐	QMU postgraduate student – taught degree Title of programme:
☑	QMU postgraduate student – research degree
☐	QMU staff member – research degree
☐	QMU staff member – other research
☐	Other (please specify) Details:

A3. School: The School of Arts, Social Sciences and Management

A4. Division: Business, Enterprise and Management

A5. Subject area: Sustainable Supply Chain management

A6. Name of Supervisor or Director of Studies (if applicable): Dr. Clair Seaman

A7. Names and affiliations of all other researchers who will be working on the project:

First name	*Last name*	*Position*	*Affiliation*	*Role on project*
Mauricio	Silva	Senior Lecturer	QMU	Supervisor

Section B: Research details

B1. Title of study: Multitier upstream supply chain responsibility in the Scottish retail clothing industry.

B2. Expected start date: 22/02/17

B3. Expected end date: 28/09/2018

B4. Protocol or proposal version: "smecsr_20170124_version1.0"

B5. Protocol date: 2017-01-24

B6. Details of any grants/funding/financial support for the project from within/outside QMU: None

B7. Do you plan at any stage of the project to undertake research involving adults lacking capacity to consent for themselves?
☐ Yes ☑ No

Answer Yes if you plan to recruit living participants aged 16 or over who lack capacity, or to retain them in the study following loss of capacity. If you answered yes, please refer to the online training module by University of Leicester and University of Bristol on 'Adults lacking capacity to consent for research' for further information: https://connect.le.ac.uk/alctoolkit/
Your research may require approval by an authorised Research Ethics Committee (e.g. NHS Research Ethics Committee).If in doubt, please contact QMU Research Ethics Panel for further advice (ResearchEthics@qmu.ac.uk).

B8. Do you plan to include any participants who are children?
☐ Yes ☑ No

Answer Yes if you plan to recruit participants aged under 16. Please also ensure that question F6 is answered.

B9. Do you plan at any stage of the project to work with human tissue samples (or other human biological samples) and data?
☐ Yes ☑ No

If you answered Yes to question B9, please also ensure that Section G is completed. To obtain a copy of Section G, please email ResearchEthics@qmu.ac.uk.

Section C: Overview of the research

C1. Summary of the study.

Please provide a brief summary of the research (maximum 300 words) ***using language easily understood by lay reviewers and members of the public.***
Please note that this summary may be published in the public domain.

The aim of this thesis is to empirically develop a model for multi-tier upstream supply chain responsibility metrics; integrating 'full producer' within Scottish SME clothing supply chains. Thus, contribute to increase the environmental and social performance and help stakeholders make more informed decision on retailer/supplier selection within the Scottish clothing industry. Research has a strong possibility to be applicable to other industries.

C2. Summary of main issues.

Please summarise the main ethical, legal, or management issues arising from your study and say how you have addressed them. Not all studies will raise significant issues. Some studies may have straightforward ethical or other issues that can be identified and managed routinely. Others may present significant issues requiring further consideration by other review bodies (as appropriate to the issue).Studies that present a minimal risk to participants may raise complex organisational or legal issues. You should try to consider all the types of issues that the different reviewers may need to consider.

Since interviews the participants are generally top-level decision making managers and staff in the firms, the confidentiality and legal responsibilities will be low. With interviews taking place within the participants business premises, the research interaction is the normal working environment, conforming to common health and safety regulations. In most cases the level of risk of harm to human participants entailed in the research will be low.
Following commitment will be given to the participants: to serve with integrity, competence, and professionalism. To treat any data that might adversely affect the firms image as confidential. Participants will be given copies of their own data - such as an interview note and/or a recording. Confidentiality and security of personal data, data retention and disposal of the data is addressed in section D.

C3. What is the principal research question/objective/aim?

Please put this in language comprehensible to a lay person.

•The first objective of this research is to provide a better understanding of how the selected Scottish clothing retailers who have reported to have committed to responsible business has implemented their commitment along the supply chain. To understand how the clothing retailers sourcing practises meet upstream responsibility expectations and what steps the retailer has taken to verify the supplier responsibility commitments and how the retailer influence actors upstream beyond their hieratical control to remain ethical, environmental and social aspects.
•The second objective is to explore the challenges the clothing retailer perceives in the implementation of their responsibility in multi tier upstream supply chain, in addition research aim to understand the challenges associated with the verification and identify the contextual factors influencing of its upstream responsibility commitment.
•Also understanding of how firms can achieve balanced integration of economic, social and environmental performance across complex, multi-tiered supply chains.
•Finally, seek to understand the implementation has the potential to entice the clothing retailers to transform its organisation structure, business processes and method to establish and maintain upstream responsibility.

RESEARCH QUESTIONS:
RQ 1: Which actions of retailer and/or upstream suppliers exercise influence over actors in a supply chain, who has control over relevant ethical, environmental or social aspects
RQ 2: Which actions of a retailer and/or upstream supplier verify that relevant environmental and social aspects are in compliance with the tightened specifications set by the Scottish retailers?
RQ 3: What does this entail for the focal company and consequences does this have over other upstream actors in the supply chain.
RQ 4: How the Scottish clothing industry supply chain responsibility perceptions affect the potential for transformation of the structure, processes and flow in the supply chain.

C4. What are the secondary research questions/objectives/aims if applicable?
Please put this in language comprehensible to a lay person.

Concept Definition
How is sustainability defined as a concept?
How is sustainability defined in the operational and supply chain context?

Business Practice
How do businesses interpret and address sustainability?
How is this translated into supply chain practice?
What practices exist to address social and environmental performance?

Balance
How do firms prioritize environmental and social performance?
What are the key trade-offs when addressing sustainability?
Is a balance of economic, environmental and social performance achievable?

Theory
What theoretical constructs are applicable to addressing sustainability in supply chains?
How can theory be developed to enable balanced supply chain practice?
How can supply chain practice inform SSCM theory?

C5. What is the academic/scientific justification for the research?
Please put this in language comprehensible to a lay person.

The research is expected to make significant contributions to SSCM theory, practice and policy. The study contributes to theory by increasing the understanding of the industries responsibility implementation approach and challenges in connection with multi tier supply network in a Small and Medium Enterprise setting. Contribute to the understanding the key contextual factors influencing and dynamics relating to verification. In this regard, the study will contribute to the SSCM literature particularly, SSCM literature on clothing industry which found to be very limited, framework relating to SME's are even more scares.

To conclude, the research will develop a framework for 'upstream supply chain' reporting metrics, facilitating improve and maintain 'upstream responsibility' or 'full producer responsibility' in supply chain, by suggesting an cumulative responsibility indicator

Section D: Design and Methodology

D1. Research procedures to be used: *please tick all that apply*.

Tick if applicable	
☐	Questionnaires (*please attach copies of all questionnaires to be used*)
☑	Interviews (*please find attach summary of interview topics*)
☐	Focus groups (*please attach summary of topics or interview schedule to be explored / copies of materials to be used*)
☐	Experimental / Laboratory techniques (*please include full details under question D2*)
☐	Use of email / internet as a means of data collection (*please include full details under question D2*)
☐	Use of materials that are subject to copyright (*please include full details under question D2 and confirm that the materials have been / will be purchased for your use*)
☐	Use of biomedical procedures to obtain human tissues (or other biological materials) (*please include full details under question D2 and Section G. Also include subject area risk assessment forms, where appropriate)*
☐	Other technique / procedure (*please include full details under question D2*)

D2. Please summarise your design and methodology.

It should be clear exactly what will happen to the research participant for research involving human participants. Please complete this section in language comprehensible to the lay person. Do not simply reproduce or refer to the protocol.

The objectives initially will be realized through pilot study, which will effectively structure and guide the proposed multiple case study method, in a single industry is used to explore the understanding of contextual determinants in a clothing industry, and to generate an intensive examination of the implementation process (Bryman and Bell, 2007). Exploratory, meaning research attempts to explore and understand what is happening in a given context. Case study helps understand processes of SCR implementation, events, and programmes and to discover key elements that will guide the research phenomena. Multiple case study research provides opportunity for multiple sources of evidence from different echelon within the supply chain and provides theoretical replication rather than sampling logic. Besides the retailers perspective research design provide an opportunity to investigate various upstream actors (multi tier).

This study seeks to incorporate case findings of purposefully selected Scottish clothing industry leaders in SME. The external validation and a comparison of the case study findings will be accomplished through the pilot study, extensive literature review as well as findings from upstream multi tier suppliers. In addition, clothing retailers' own sustainable declarations, sourcing code of conduct and firms published sustainability profile will provide the full continuum.

Primary data collection will be through semi-structured interviews within the actors of focal retailers and multi tier upstream actors in the supply chain, and complemented by field notes, and various publically available company documents (such as annual reports, environmental reports, vendor selection criteria, etc.).

- *Type of objective: Subjective*
- *Aim: Exploratory and observational*
- *Characteristics: Flexible, Dynamic, continuous view of change*
- *Sampling: Purposeful Case study*
- *Data collection: Semi-structured interviews, observations.*
- *Nature of data: Value uniqueness, particularity. narratives, quotations, descriptions*
- *Analysis: Thematic*

Thematic analysis will be conducted by familiarisation with the data, which involves reading and re-reading the transcribed data, to become immersed and intimately familiar with the content. Then, the coding, which involves generating succinct labels (codes) that identify important features of the data that are relevant to answering the research question. It might involve coding the entire dataset, and after that, collating all the codes and all relevant data extracts, together for later stages of analysis. Then researcher will scan for themes, which involves examining the codes and collated data to identify significant broader patterns of meaning (potential themes). Next reviewing themes, which involves checking the candidate themes against the dataset, to determine that they tell a convincing story of the data, and one that answers the research question. In this phase, themes will be refined, which sometimes involves them being split, combined, or discarded. Defining and naming themes: This involves developing a detailed analysis of each theme, working out the scope and focus of each theme, determining the 'story' of each. It also involves deciding on an informative name for each theme. Finally, Writing up, which involves weaving together the analytic narrative and data extracts, and contextualising the analysis in relation to existing literature.

One highlighted benefit of field research is the close collaboration between the researcher and the participant (Crabtree and Miller, 1999) where they were able to describe their views of reality and visual ability enables better understand the process (Lather, 1992; Robottom and Hart, 1993; Baxter and Jack, 2008).

D3. Does your research include the use of people as participants?
☑ Yes ☐ No

Answer No *if your project involves secondary analysis of collected data.*
If you answered Yes to question D3*, please ensure that Section F is completed.*

D4. Does your research include the experimental use of live animals?
☐ Yes ☑ No

If you answered Yes to question D4*, please note that the university is not insured to experiment on live animals. Please attach the insurance coverage certificate to this application for review. Please check and ensure that appropriate university insurance is in place to cover the work. If in doubt, please contact Karen Sinclair (Head of Finance, ksinclair@qmu.ac.uk) on insurance coverage.*

D5. Does your research involve experimenting on plant or animal matter, or inorganic matter?
☐ Yes ☑ No

If you answered Yes to question D5*, please check and ensure that appropriate university insurance is in place to cover the work. If in doubt, please contact Karen Sinclair (Head of Finance, ksinclair@qmu.ac.uk) on insurance coverage. Please attach the insurance coverage certificate to this application for review.*

D6. Does your research include the analysis of documents, or of material in non-print media, other than those which are freely available for public access?
☐ Yes ☑ No

If you answered 'Yes' to Question D6, give a description of the material you intend to use. *Describe its ownership, your rights of access to it, the permissions required to access it and any ways in which personal identities might be revealed or personal information might be disclosed. Describe any measures you will take to safeguard the anonymity of sources, where this is relevant:*

This text box will expand as required.

D7. Will any restriction be placed on the publication of results?
☐ Yes ☑ No

If you answered 'Yes' to question D7, give details and provide a reasoned justification for the restrictions. (See Research Ethics Guidelines Section 2, paragraph 7)

This text box will expand as required.

D8. Who will have access to participants' personal data during the study?

Where access is by individuals outside the research team or direct care team (health research), please justify and say whether consent will be sought.

Primarily, the researcher will have the access to the personal data. Other than the research supervisors no one else will be grated access to the password-protected data files.

D9. How long will personal or personally identifiable data be stored or accessed after the study has ended?
Please note this question only relates to retention of personal or personally identifiable data.

- ☐ Less than 3 months
- ☐ 3 – 6 months
- ☑ 6 - 12 months
- ☐ 12 months – 3 years
- ☐ Over 3 years

*It is recommended that data containing personal details that would lead to the identification of participants should be destroyed **as soon as possible**. Examples of personally identifiable data include participants' email addresses, NHS/CHI numbers, expressions of interest etc., BUT NOT consent forms. Personally identifiable data should be stored separate from the anonymised data to prevent linkage. If potential participants have provided you with their contact details, this information should only be retained until they have consented or refused to participate in the research. However, if a participant noted that they would like to receive a summary of the research, it would be appropriate to retain their contact details until this summary has been sent out.*
See the following for advice on data handling:
http://www.lancaster.ac.uk/shm/study/doctoral_study/dclinpsy/onlinehandbook/ethics_and_data_storage_advice/

D10. For how long will you store research data generated by the study? *State if the data will be stored for an infinite time period.*

Years: Until successful completion of the thesis *Months:* *More information: Data will be kept securely. All data collected will be saved electronically, including consent forms which will be scanned and saved. Data will be transferred and saved in password-protected file on the university server.*

D11. Please give details of the *short term (duration of project)* and *long term (after project completion)* arrangements for storage of research data after the study has ended. (See Research Ethics Guidelines has Section 1, paragraph 2.4.1)

Short term storage of research data on any of the following:

- ☑ Manual files (includes paper or film)
- ☐ Home or other personal computers
- ☑ University computers/server

☐ Laptop computers
☐ Hard drive storage
☑ USB storage devices
☐ Other portable storage (e.g. CDs, DVDs etc.)
☐ Cloud/online storage (please provide name and server location of cloud storage below)
☐ Others (please state):

Interview data will be stored in password-protected files on USB storage and university server. In order to maintain the integrity of stored data, data should be protected from physical damage as well as from tampering, loss, or theft. This is primarily done through limiting access to the data. Notebooks or paper notes will be kept together in a safe, secure location away from public access, e.g., a locked file cabinet. Where possible paper notes will be scanned and transferred to the electronic media and saved in password protected files on USB storage and secure university server. USB storage device will be destroyed after the completion of the research. The notebooks and paper files will be shredded and destroyed.

Say where data will be stored, who will have access and the arrangements to ensure security (for example, encryption used). Explain how and when data will be destroyed (if applicable).

Long term storage of research data on any of the following:
☐ Manual files (includes paper or film)
☐ Home or other personal computers
☑ University computers/server
☐ Laptop computers
☐ Hard drive storage
☐ USB storage devices
☐ Other portable storage (e.g. CDs, DVDs etc.)
☐ Cloud/online storage (please provide name and server location of cloud storage below)
☐ eData – QMU open access data repository
☐ Others (please state):

Say where data will be stored, who will have access and the arrangements to ensure security (for example, encryption used). Explain how and when data will be destroyed (if applicable).

All data collected will be saved electronically, including consent forms which can be scanned and saved. Data will be transferred and saved in password-protected file on the university server. Research supervisors will be given access.

D12. Will the data be stored:
☐ In fully anonymised form? (link to participant broken)

☑ In linked anonymised form? *(linked to data but participant not identifiable to researchers)*

The researcher will retain the code for linking de-identified data to participants' details during the data collection till the analysis and de-identification is completed. Data entered onto the secured university shared drive will be linked anonymised.
Also ensure data is store locally as opposed to on third party servers where you are unable to restrict access. As an extra measure data will be stored on a password-protected file.

If Yes, say who will have access to the code and personal information about the participant:

☐ In a form in which the participant could be identifiable to researchers?
If Yes, please justify.

D13. Who will have control of and act as the custodian for the data generated by the study?

The researcher will be the custodian of the data, but access will be given to Dr. Claire Seaman and Dr. Maricio Silva given access to the data collection

D14. Will the research participants receive any payments, reimbursements of expenses or any other benefits or incentives for taking part in this research?
☐ Yes ☑ No

If Yes, please give details.

Not Applicable

D15. Will individual researchers receive any personal payment over and above normal salary, or any other benefits or incentives, for taking part in this research?
This question is concerned with "in pocket" financial payments or additional benefits to be provided direct to researchers personally, over and above the costs of conducting the research.
☐ Yes ☑ No

If Yes, please give details.

Not Applicable

Section E: Risks and benefits

E1. Give details of all procedure(s) or intervention(s) that will be received by participants as part of the research protocol?
These include seeking consent, interviews, observations and use of questionnaires.

Please complete the columns for each procedure/intervention as follows:

1. Total number of procedures/interventions to be received by each participant as part of protocol.
2. Average time taken per procedure/intervention (minutes, hours or days)
3. Details of who will conduct the procedure/intervention, and where will it take place.

Procedure or intervention	*1*	*2*	*3*
Interview	2	45-60 min	The researcher, interview location.

E2. How long do you expect each participant to be in the study in total?
Duration of participation should be calculated from when participants give informed consent until their last contact with the research team.

6 months to 9 months

E3. What are the potential risks and burdens for research participants and how will you minimise them?
For all studies, describe any potential adverse effects, pain, discomfort, distress, intrusion, inconvenience or changes to lifestyle. Only describe risks or burdens that could occur as a result of participation in the research. Say what steps would be taken to minimise risks and burdens as far as possible.
Where the research only involves the use of data, consideration should still be given to the risks for participants associated with any breach of confidence or failure to maintain data security.

No significant risk involved. Researcher does not intent to collect data unless this is absolutely necessary for the study, e.g. not ask for full names, as it doesn't add value to the research. Researcher agrees to use data collected only for the research study explained in the consent form. If at any point that will be used for any other purpose researcher is liable to seek further consent from the participants.
Pre-planning and agreeing with participants during the consent process, on what may and may not be recorded or transcribed.

E4. Will interviews/ questionnaires or group discussions include topics that might be sensitive, embarrassing or upsetting, or is it possible that criminal or other disclosures requiring action could occur during the study?
☐ Yes ☑ No ☐ Not applicable

If Yes, please give details of procedures in place to deal with these issues:

Not Applicable

E5. What is the potential for benefit to research participants?
You should state here any potential benefits to be gained by the research participant through taking part in the research either now or in future. However, do not over-emphasise the benefits. In some cases there may be no apparent benefit.

The proposed 'upstream supply chain' reporting model, facilitating improve and maintain 'upstream responsibility' or 'full producer responsibility, thus enabling making more informed sourcing decisions.

E6. Will the researcher be at risk of sustaining either physical or psychological harm as a result of the research? *Please delete as appropriate.*
☐ Yes ☑ No

If you answered 'Yes' to the question E6, please give details of potential risks and the precautions which will be taken to protect the researcher.

Not Applicable

Section F: Research Involving Human Participants

You should only complete this section if you have indicated above that your research will involve human participants.

F1. Please indicate the total number of participants you intend to recruit for this study from each participant group:

Participant Group	Please state total number
QMU students	
QMU staff	
Members of the public from outside QMU	
NHS patients	
NHS employees	
Children (under 16 years of age)	
People in custody	
People with communication or learning difficulties	
People with mental health issues	
People engaged in illegal activities (eg. illegal drug use)	
Other (please specify): Business owners/CEO/CSR Managers/ Business Decision makers	40

** Please declare in Question F8 where the participant group may necessitate the need for standard or enhanced disclosure check*

F2. How was this participant number decided upon? *If a formal sample size calculation was used, indicate how this was done, giving sufficient information to justify and reproduce the calculation. If another method of determining participant numbers was used, please provide sufficient details for the method and justify the decision.*

Plan to do four case studies, two actors in the case study firm, one actor each from eight other supplier and suppliers to the suppliers (tier1 suppliers, tier2 supplier.. etc)

F3. Please state the inclusion and exclusion criteria to be used. (See Research Ethics Guidelines Section 1, paragraph 2.4)

Actors who are involved in the decision making of social responsibility aspects of the business are included.

F4. Will you obtain informed consent from or on behalf of research participants?
☑ Yes ☐ No

Please give details of who will take consent and how it will be done, with details of any steps to provide information (a written information sheet, videos, or interactive material). *If you plan to include any participants who are children, please describe the arrangements for seeking informed consent from a person with responsibility and/or from children able to give consent for themselves.*

The researcher will seek written consent from the participants, please find attached copy of the information and consent forms.
The interviews will be recorded, transcribed and presented to the participants for any feedback. Aims to eliminate any misunderstandings and give the participant the opportunity to reflect on information given to the researcher.

If you are not obtaining consent, please explain why not.

Not Applicable

F5. (Children) If you intend to provide children under 16 with information about the research and seek their consent or agreement/assent, please outline how this process will vary according to their age and level of understanding. *Copies of written information sheet(s) for parents and children, consent/assent form(s) and any other explanatory material should be enclosed with the application.*
For further information on providing information and obtaining consent/assent from children, please refer to this online information for best practice:
http://www.hra-decisiontools.org.uk/consent/principles-children.html

Not applicable

F6. Will the research involve participant deception?
☐ Yes ☑ No

If you answered Yes to Question F7, please justify the use of deception. Also describe what procedures will be implemented to safeguard the dignity, safety and welfare of the participants during the research and after it has ended.

This text box will expand as required.

F7. Ethical principles incorporated into the study (*please tick as applicable*):

Ethical principles
Will participants be offered a written explanation of the research? ☑ Yes ☐ No ☐ Not applicable
Will participants be offered an oral explanation of the research? ☑ Yes ☐ No ☐ Not applicable
Will participants sign a consent form? ☑ Yes ☐ No ☐ Not applicable
Will oral consent be obtained from participants? ☑ Yes ☐ No ☐ Not applicable

Will participants be offered the opportunity to decline to take part? ☑ Yes ☐ No ☐ Not applicable
Will participants be informed that participation is voluntary? ☑ Yes ☐ No ☐ Not applicable
Will participants be offered the opportunity to withdraw at any stage without giving a reason? ☑ Yes ☐ No ☐ Not applicable
Will independent expert advice be available if required? ☑ Yes ☐ No ☐ Not applicable
Will participants be informed that there may be no benefit to them in taking part? ☑ Yes ☐ No ☐ Not applicable
Will participants be guaranteed confidentiality? ☑ Yes ☐ No ☐ Not applicable
Will participants be guaranteed anonymity? ☑ Yes ☐ No ☐ Not applicable
Will the participant group necessitate a standard or enhanced disclosure check of the researcher? ☐ Yes ☐ No ☑ Not applicable
Will the provisions of the Data Protection Act be met? ☑ Yes ☐ No ☐ Not applicable
Has safe data storage been secured? ☑ Yes ☐ No ☐ Not applicable
Will the researcher(s) be free to publish the findings of the research? ☑ Yes ☐ No ☐ Not applicable
If the research involves deception, will procedures be in place during and after the research to safeguard the dignity, safety and welfare of the participants? ☐ Yes ☐ No ☑ Not applicable
If the research involves questionnaires, will the participants be informed that they may omit items they do not wish to answer? ☐ Yes ☐ No ☑ Not applicable
If the research involves interviews, will the participants be informed that they do not have to answer questions, and do not have to give an explanation for this? ☑ Yes ☐ No ☐ Not applicable
Will participants be offered any payment or reward, beyond reimbursement of out-of-pocket expenses? ☐ Yes ☑ No ☐ Not applicable

Section G is a reserved section of the form for applications involving Human Tissues. Please email ResearchEthics@qmu.ac.uk if you require a copy of Section G.

Section H: Risk Assessment

Queen Margaret University
EDINBURGH

Reference:	

School / Division:		**Location:**		**Date**	
Assessed by:		**Job Title:**		**Signature**	
Activity / Task:		**Total Number exposed to risk**		**Review Date**	

Ref no.	**Hazards**	**People at risk**					**Likelihood**				**Severity**				**Total risk**	**Existing control measures**	**Adequate controls?**
		Employees and students	**Members of public/visitors**	**Contractors**	**Young people**	**Mothers: new or expectant**	**Improbable**	**Remote**	**Possible**	**Probable**	**No injury**	**Minor**	**Major**	**Fatal**			
1.																	
2.																	
3.																	
4.																	
5.																	
	Risk value (RV)						**1**	**2**	**3**	**4**	**1**	**2**	**3**	**4**			

Total risk = Likelihood (RV) x Severity (RV)Total risk of 1 – 4 = 'L', low riskTotal risk of 6 – 9 = 'M', medium riskTotal risk of 12 – 16 = 'H', high risk

Queen Margaret University
EDINBURGH

Reference:	

Remedial action required

Ref no.	Action required	Target date	Action by:	Date completed
1.				
2.				
3.				
4.				
5.				

Section I: Declarations by applicant

I1. Having completed all the relevant items of this form and, if appropriate, having attached the Information Sheet and Consent Form plus any other relevant documentation as indicated below, complete the statement below.

- I have read Queen Margaret University's document on "Research Ethics: Regulations, Procedures, and Guidelines".
- The information in this form is accurate to the best of my knowledge and belief and I take full responsibility for it.

- *In my view* this research is:

Please tick	*See Research Ethics Guidelines Section 6*
☑	Non-invasive
☐	Minor invasive using an established procedure at QMU
☐	Minor invasive using a NEW procedure at QMU
☐	Major invasive

- I understand that research records/data may be subject to inspection by review bodies for audit purposes if required.

I2. Access to application for training purposes (please tick as appropriate):
☑ I would be content for members of Research Ethics Committees to have access to the information in the application in confidence for training purposes. All personal identifiers and references to sponsors, funders and research units would be removed.

Name *Joseph Tivanka Croos Moraes*

Date 21.02.2017

I3. If you are a student, show the completed form to your supervisor/Director of Studies and ask them to sign the statement below. If you are a member of staff, sign the statement below yourself.

- I am the supervisor/Director of Studies for this research.
- *In my view* this research is:

Please tick	*See Research Ethics Guidelines Section 6*
X	*Non-invasive*
☐	*Minor invasive using an established procedure at QMU*
☐	*Minor invasive using a NEW procedure at QMU*
☐	*Major invasive*

- I have read this application and I approve it.

Name *(if you have an electronic signature please include it here)*

Date February 2017

I4. For all applicants, send the completed form to your Head of Division or Head of Research Centre or, if you are an external researcher, submit the completed form to the Secretary to the QMU Research Ethics Panel (ResearchEthics@qmu.ac.uk). **You should not proceed with any aspect of your research which involves the use of participants, or the use of data which is not in the public domain, until you have been granted Ethical Approval.**

For completion by
The Head of Division/Subject Area/Group, OR
Division/Subject Area/Group Research Ethics Committee:

Either

☐ I refer this application back to the applicant for the following reason(s):

Name *(if you have an electronic signature please include it here)*

_____ (Head of Division/ Subject Area/ Group)

Date _____

Please return the form to the applicant.

Or

Please tick **one** of the alternatives below:

☐ I refer this application to the QMU Research Ethics Panel.

☐ I find this application acceptable and an application for Ethical Approval should now be submitted to a relevant external committee.

X I grant Ethical Approval for this research.

Name *(if you have an electronic signature please include it here)*

___Rita Welsh_____ (BEaMethics)

Date __22/02/17_____

Please email one copy of this form to the applicant and one copy to the Secretary to the Research Ethics Panel (ResearchEthics@qmu.ac.uk).

Date application returned: ___22/02/17_____

7.7 Appendix G: Alternative fibre

Recycled Polyester: Is recognised as the most suitable alternative to cotton in comparison to other fibres as it is cheaper, thinner, and accessible in a number of different structure and colours. Fabric use yarn from melted plastic bottles spun and woven into a fabric. There is 'recycled post-consumer polyester' made from collected bottles. The collected waste is sorted by hand and then melted down to form chips, which are processed to make yarn (Fletcher, 2008). The MADE-BY, Benchmark for fibres publishes five classifications from Class A (best) to Class E (worst) based on sustainability. Recycled fibres are rated highly as recycled material is considered waste, which does not bear any environmental burden from the first life. Accordingly, mechanically recycled polyester and nylon, organic flax and hemp, recycled cotton and wool are listed as Class A fibres (Made-by, 2017). However, recycled polyester reportedly are not from 100% recycled plastic, often fabric made of 'recycle polyester' has a designated percentage of plastic chips. Research suggests the technology is sophisticated that it is difficult to verify if the fibres are really from recycled material. Further, according to Le Guern (2018) synthetic fibres are not readily biodegradable. Estimations suggest that as much as 20% - 35% of micro-plastics fibres particles from synthetic clothing end up in the marine environment (Boucher, and Friot, 2017; Henry, Laitala, and Klepp, 2018). They are thus creating massive environmental destruction.

Linen: It is one of the most biodegradable fabrics made from flax that grows naturally and requires no additional water other than rainwater, which also fares better in terms of water toxicity, making it the most eco-friendly fabric. Flax plant requires little pesticides, herbicides, and fungicides than cotton cultivation. Although cultivators still use herbicides and fungicides, that can be avoided by accepting organic linen. As per the textile comparison, the overall environmental impact of the linen (flax) clothing is considered lower than that of the cotton clothing (Wholesome Linen, 2016)

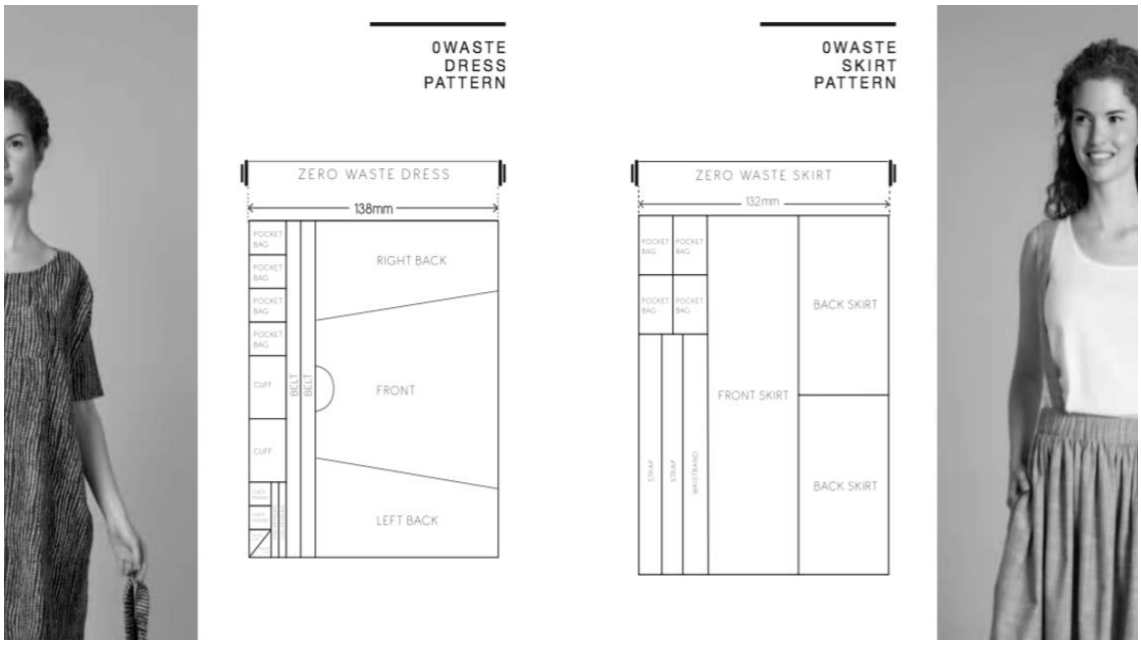
Hemp: Is a fast-growing plant that provides one of the strongest and most durable natural textile fibres, which is similar to linen in texture. Manufacturers are also able to blend hemp fibres with other natural fibre to create fabrics with the durability of hemp and the softness of cotton or bamboo (Hymann, 2016). From an environmental point of view, hemp cultivation does not need harsh chemical herbicides. It also naturally reduces pests, so no pesticides are needed. According to Hymann (2016), hemp plants can return 60-70% of the soil nutrients naturally. Although hemp is a sustainable crop to grow, the production process appears to be less transparent. Some researchers are still not convinced that the production process that turns the plant into a fabric is low-impact.

Lyocell: Environmentalist often heralded lyocell as one of the breakthroughs from the development of environmentally sustainable textile perspective. The material is developed from wood. The process use cellulose found in wood pulp (American Fibre Manufacturers Association, 2016). The reports suggest that the fibre production itself is extremely eco-friendly, due to the 'closed-loop' solvent spinning process, with minimal impact on the environment. Economical production method uses less energy and water (Kininmonth, 2005; Goyal and Dedhia, 2006).

Ramie: Often used as a substitute for cotton. It is a highly sustainable strong, natural, and lustrous fibre source, which makes it an astonishing eco-friendly alternative to synthetic fibres. However, ramie is naturally susceptible to pests, and disease extraction of the fibre is expensive.

As parts of the sustainability initiatives recycled thread, recycled leather, and recycled clothing are also discussed throughout the conversations. 'Zero waste fashion' forms an essential element in brand A1 sustainability direction.

7.8 Appendix H: Zero waste garment design



Source: Zero waste dress and skirt pattern