Sustainability in the Leather Industry: Exploring the Relationship Between Social Sustainability Drivers, Practices and Indicators.

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Sustainability in the Leather Industry: Exploring the Relationship Between Social Sustainability Drivers, Practices and Indicators.

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SUSTAINABILITY IN THE LEATHER INDUSTRY: EXPLORING THE RELATIONSHIP BETWEEN SOCIAL SUSTAINABILITY DRIVERS, PRACTICES AND INDICATORS.

Abstract

Although the importance of sustainability is being increasingly recognised by business, in the leather industry the focus has been on environmental sustainability rather than the social aspect. This research has purposely looked to explore that gap by investigating the social sustainability drivers, their relationship with social sustainability practices and the associated indicators in the leather supply chain through the stakeholder and institutional theory lens.

A qualitative methodology is applied in which primary and secondary data is used to achieve the study's aim and objectives in the context of the European leather supply chain. Data is collected and analysed based on the key themes developed in the initial conceptual framework and literature review. A within cases and across cases analysis is performed to explain key findings to validate and refine the initial conceptual framework to a theoretical framework for a socially sustainable supply chain.

The study's key finding presents that sustainability drivers can assist in explaining the importance of implementing social sustainability practices towards desired business goals. Likewise, leather supply chain actors are proven to have distinct supplier development roles towards a socially sustainable supply chain and are largely collaborative instead of competitive. Due to the highly collaborative nature of leather supply chain actors, social sustainability practices implemented and indicators for measurement are similar thereby providing an opportunity for developing consensus assessment tools in the industry.

The study proposes a framework that provides managers with a stepwise guide to integrate social sustainability into short- and long-term business goals. The study contributes to theory by providing evidence of the applicability of institutional and stakeholder theory to social sustainability studies. The research outcomes provide extensive implications for theory and practice.

KEYWORDS: European Leather Supply Chain; Social Sustainability; Tanneries; Chemical Suppliers; Leather Good Manufacturers, Leather Goods Retailers; Drivers; Practices; Indicators; Supplier Development.

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Articles Published from Current Research

The following articles have been published from work done in this thesis. The links to the papers are provided below:

1. Omoloso, O., Mortimer, K., Wise, W.R., Jraisat, L. (2021) Sustainability research in the leather industry: A critical review of progress and opportunities for future research. Journal of Cleaner Production. 285, 125441. https://doi.org/10.1016/j.jclepro.2020.125441
2. Omoloso, O., Wise, W.R., Mortimer, K., Jraisat, L. (2020) Corporate Sustainability Disclosure: A Leather Industry Perspective. Emerging Science Journal. 4(1), 44–51. https://www.ijournalse.org/index.php/ESJ/article/view/267. DOI:10.28991/esj-2020-01209
3. Omoloso, O., Wise, R.W., Mortimer, K., Jraisat, L. (2019) Sustainability Disclosure in the Leather Industry: A Content Analysis of Selected Sustainability Reports. In 2019 35th International Union of Leather Technologists and Chemists Societies (IULTCS) Congress. https://slub.qucosa.de/api/qucosa%3A34131/attachment/ATT-0/

1 Introduction

The aim of this research is to explore social sustainability drivers and their relationship towards social sustainability practices and indicators in the leather supply chain through the stakeholder and institutional theory lens. This chapter details the background of the research and the rationale of the study. The aim and objectives are presented, as well as the introduction to the research methodology. The empirical and theoretical context of the study is also introduced. Finally, the potential implications of the findings are highlighted.

1.1 Research Background

The importance of social sustainability discussions which encompasses basic needs (including food, shelter, education, health, wellbeing and safety) and equity, is beginning to resonate among every global citizen: tracking the degree with which there is discussion and protests relating to the preservation of the environment for future generations (environmental sustainability) (Sodhi and Tang, 2018). Corporations and businesses are now increasingly aware that being environmentally/economically sustainable alone is not sufficient and that the social aspect cannot continue to be under-discussed or neglected. Industries and companies are starting to increase monetary and policy commitments to address issues like inequalities in communities and workplaces (Crifo *et al.*, 2018).

To address societal issues, it becomes imperative for the participation of businesses across all industries. In several industries and related literature, environmental and economic sustainability has been the main focus of sustainability implementation (Ashby *et al.*, 2012; Hutchins *et al.*, 2019). On the other hand, more profound research is still necessary to develop required social sustainability knowledge to enable the implementation of related practices and performance measurement.

In the leather industry context, the dominant focus has been on environmental sustainability practices such as reducing water, carbon, resource, and toxicological footprints (Wolf *et al.*, 2013), while the social aspect has been significantly understudied. Although the interconnectedness of the three main dimensions of sustainability (economic, environmental and social) is well established in the literature, a dominant focus on one dimension may address some aspects of other dimensions but not all (Engert and Baumgartner, 2016; Lozano and Haartman, 2017; Martins and Pato, 2019). For instance, a focus on reducing chemical use in a tannery in favour of a new technology may reduce costs in the long run (economic sustainability), reduce the exposure of employees to chemical use (social sustainability), and

limit the release of harmful effluents to the environment (environmental sustainability). However, the initial focus mentioned (reducing chemical use in a tannery) may not positively affect or address issues relating to labour use, inequality, diversity and education. Hence, addressing social sustainability independently (as part of the sustainability dimensions) can contribute towards a holistic focus on sustainability implementation in the leather supply chain.

1.2 Research Empirical Context

This research is contextualised in the leather industry, where animal hides and skins are the primary raw material. Leather is produced from animals' hides. and hides are by-products obtained from animals reared for meat or milk (or both) (BASF, 2007). The leather industry is a global one, encompassing many products and processes (MVO Nederland, 2013). Leather goods consist mainly of shoe leather, automotive leather, leather clothing (fashion) and upholstery leather. As of 2020, the leather goods market had a value of 264 billion dollars, with China representing the highest producer of leather in the world (Statista, 2021b).

The EU leather industry is made of different sectors: starting from the raw materials suppliers to the tanning industry, chemical suppliers, and manufacturers and retailers of different leather (Brugnoli *et al.*, 2013). Using leather has various advantages because of its unique qualities like breathability, flexibility and adaptability (Daniels and Landmann, 2013). The leather industry and its allied sectors, including the chemicals and machinery sectors, comprise an estimated 40,000 companies and generate a turnover of 48 billion Euros, employing around 435,000 people (Eurostat, 2018). The leather industry in the EU is regarded as a world leader regarding the quality of products (Brugnoli *et al.*, 2013). Italy represents the largest industry in Europe, accounting for approximately 65% of the EU's total production. As of 2019, it also represented the highest exporter of leather in the world (Statista, 2021a).

The footwear sector of the EU represent 41%, serving as the main destination for the use of leather; leather goods -19%, furniture/upholstery represents 17%, automotive industry- 13%, clothes/garments - 8% and other uses representing 2% (Eurostat, 2018). The tannery represents the industry's main sector, as its activities determine the *"aesthetic and performance characteristics"* needed by different downstream sectors (Brugnoli *et al.*, 2013). The European tanning sector is also regarded as a global leader in turnover (representing 29.5% of the world total) and quality in terms of product and process innovation and social commitment (Brugnoli *et al.*, 2013). This fact is one of the reasons (others discussed in the literature review) why this

study focuses on the European leather industry, as it could enable the collection of rich data on sustainability and social sustainability.

Priority for sustainability implementation is gradually gaining strength in the industry. The environmental aspect of sustainability has received considerable attention, as evidenced in one Italian tannery spending 94.3% of its sustainability investments on environmentally related sustainability practices (Leathermag, 2018). In addition, increased awareness is being geared towards social sustainability, focusing on health and safety (Decouple, 2013; Syed *et al.*, 2010). This research continues in this vein by drawing focus on the most under-researched and underexplored aspects of sustainability. A sustainable leather manufacturing industry should not only be environmentally vibrant but should also foster a reduction in operation costs and improvement in quality (Roberts and Ball, 2014), increased global competitiveness (Smith and Ball, 2012), product safety (Gupta *et al.*, 2018a) and improved health and safety profile of employees and community.

1.3 Research Problem, Aims and Objectives.

Out of the several related practices to social sustainability, like diversity, inclusion, elimination of inequality, development of human and social capital, employee engagement; health and safety has been the main centre of focus of social sustainability in the leather industry (Munny *et al.*, 2019). However, there is a lack of details on other social sustainability practices and how they are implemented, providing a knowledge gap explored in this study.

Furthermore, it is noted in the literature that the understanding of the rationale behind the implementation of sustainability practices can improve adoption amongst supply chain actors. This "rationale" is also referred to as motivating factors or influencers or drivers (Saeed and Kersten, 2019). In this study, "drivers" was used as it is a term that has been highly used in the sustainability literature. As a future research direction, it was suggested by Saeed and Kersten (2019) that drivers of each sustainability dimensions be investigated. Other authors also supported this view, who attributed the identification of sustainability drivers as a starting point for sustainability implementation strategies (Beske and Seuring, 2014; Pinto and Allui, 2016).

As drivers are also seen as influencing or motivating factors that urge or cause companies to implement sustainability practices, these factors often emanate from business stakeholders. This is encapsulated in the stakeholder theory that advocates for value delivery to those affected and affect the business (Hörisch *et al.*, 2014). Interpretively, the need to deliver these values is communicated to companies' business stakeholders through drivers, directly and indirectly.

Similarly, institutional theory (discussed later in detail) has been used to explain these drivers through its components such as coercive, normative and mimetic pressures. However, research that establishes the relationship between social sustainability drivers and other related sustainability concepts like practices and indicators is scant.

Additionally, further to understanding the rationale behind implementing practices and the resulting implementation process, indicators are necessary to evaluate performance, as "what cannot be measured cannot be managed" (Dahl, 2012; Hutchins *et al.*, 2019). However, indicators tend to differ from one industry to another (Popovic *et al.*, 2018; SASB, 2020). Specifically, the type of social sustainability indicators used in an industry can either be general, echelon or industry-specific indicators, and it is suggested that the knowledge of what is applicable can enable industries and supply chains towards measuring and comparing performance among all supply chain actors (Popovic *et al.*, 2018). Studies on social sustainability indicators in the leather industry are lacking, providing a gap in the literature.

Furthermore, indicators have been criticised for focusing on outcomes rather than the underlying causes of those outcomes (Tatiechi, 2013; Pham *et al.*, 2013). Pham and Smith (2014) argued that an understanding of sustainability drivers and extensive relationship with key performance indicators has two main advantages: drivers enable the creation of a sustainability measurement tool that makes it possible to predict the reason behind changes in indicator trends, and it assists in developing suitable policies that support sustainability.

Lastly, supply chain actors' participation is seen as necessary towards enabling progress on sustainability in an industry (Govindan *et al.*, 2013; Meixell and Luoma, 2015). While several studies have established the importance of all supply chain actors collaborating and contribute to a sustainable supply chain, there is a lack of research investigating the roles of leather supply chain actors contributing to social sustainability.

Overall, the main gap identified in this study is encapsulated in the statement "*investigating the moderating effects of drivers of SSCM on the relationship between adopting sustainability practices in the supply chain and sustainable supply chain performance*", stated by Saeed and Kersten (2019, p.21). Although in this case, the focus is on social sustainability in the leather supply chain.

Hence, this research explores social sustainability drivers and their relationship with social sustainability practices and indicators in the leather supply chain through the stakeholder and institutional theory lens. To fulfil the study's aim and objectives, the empirical context of the

study is set in the EU leather industry (discussed earlier), as it provides the opportunity to obtain high-quality information on social sustainability, which is seeing a significant level of attention in the industry (Brugnoli *et al.*, 2013). To achieve the research aim above, the objectives of the research are to:

1. Explore the key social sustainability practices in the leather supply chain.
2. Investigate relevant indicators used to assess social sustainability performance in the leather supply chain.
3. Explore the nature of the interaction between key actors towards a socially sustainable leather supply chain.
4. Empirically determine the key social sustainability drivers that influence leather supply chain actors towards implementing social sustainability practices and indicators.
5. Develop a theoretical and empirically supported framework establishing the relationship between social sustainability drivers, practices and sustainability indicators.

1.4 The Theoretical Context of the Research

The current study is established on a number of theoretical perspectives such as Supply Chain Management (SCM), Institutional theory and Stakeholder theory due to their relevance to explain, examine and address the research problem. Supply chain management serves as the foundational theoretical perspective upon which sustainable supply chain management is built, and other theories can be anchored (Sarkis *et al.*, 2011). Supply chain management involves managing relationships between downstream. focal companies and upstream actors [usually buyers and sellers] to create value and customer satisfaction (Oelze, 2017).

A similar range of theoretical perspectives have been applied to supply chain and sustainable supply chain management studies (Defee *et al.*, 2010; Sarkis *et al.*, 2011; Touboulic and Walker, 2015). Examples of such theories include complexity theory, ecological utilisation theory, legitimacy theory, information theory, resource-based view, resource dependency theory, social network theory, transaction cost economics, stakeholder theory and institutional theory (Zhu and Sarkis, 2007; Sarkis *et al.*, 2011; Gualandris and Kalchschmidt, 2014; Wu *et al.*, 2012; Gao *et al.*, 2017). For this study, institutional theory and stakeholder theory are key theories that have been used in explaining the relationship between pressures/drivers and other embedded sustainability concepts like reporting (Herold, 2018), practices (Ahmed *et al.*, 2019;

Dubey *et al.*, 2015; Glover *et al.*, 2014) and indicators (Antolín-López *et al.*, 2016; Lodhia and Martin, 2014; Lim and Biswas, 2018).

Stakeholders are essential to implementing sustainability practices and indicators as they put pressure on companies to respond to their needs which can be sustainability-related (Saeed *et al.*, 2017). The institutional theory can explain these pressures through the three key dimensions of coercive, normative and mimetic pressures (Saeed and Kersten, 2019). This suggests the overlap between both stakeholder and institutional theory.

1.5 Research Methodology

A qualitative methodology is applied to this research, following a well-developed case study protocol. Previous researchers in the field have used qualitative studies to explore the under-researched areas of sustainable supply chain management and the concepts under investigation in this study (Saeed and Kersten, 2019; Śmiechowski and Lament, 2017; Gualandris and Kalchschmidt, 2014; Anisul Huq *et al.*, 2014; Bubicz *et al.*, 2019). In fact, Bubicz *et al.*(2019) found that studies relating to social sustainability have usually been exploratory and qualitative because a qualitative approach is useful in uncovering knowledge in areas that have not been previously explored. An exploratory and qualitative approach is applied in this study because social sustainability has been under-studied in the leather industry context. In addition, an explanation of how different drivers influence companies to implement social sustainability practices has not been studied in the literature, hence, using a qualitative approach can be justified. Hence, this study draws on methodological approaches such as research strategies, research design, data collection and analysis, from previous researchers to increase the credibility of findings and expand the body of knowledge on social sustainability in supply chains.

The study adopts an abductive approach to the study, which allows for a "*less theory-driven research process than deduction. An outcome of the abductive research is a framework that provides a tentative idea of what theory can look like*" (Rashid *et al.*, 2019, p.5). Because of the novelty of the research study and research aim, an abductive approach provides an avenue to infer predictions (that may be true) to incomplete observations about the relationship between social sustainability drivers, practices and indicators (Bell *et al.*, 2018). The abductive approach suggests that theories evolve simultaneously with empirical observation and verification by employing both deductive and inductive approaches (Rashid *et al.*, 2019). With the deductive approach, the study starts with establishing theories through the literature review

and leads to the development of an initial conceptual framework that guides the research. The inductive approach to theory building is employed to refine the conceptual framework through field data collection and analysis in order to develop theory.

The study uses a multiple case study to elicit information from members of the leather supply chain in Europe. A multiple-case strategy allows for replication logic and a rich source of information to generalise findings (Yin, 2018). The study follows three phases or steps in order to achieve the research aim.

Phase 1- Literature review and development of conceptual framework: This phase required an extensive literature review (in chapter 2) to identify the research problem and provide justification to carry out the research. Previous research in the sustainability and sustainable supply chains is reviewed and in the context of the leather industry. The literature review yields the identification of research gaps and hence, the definition of the research questions, aims and objectives. The understanding of research problem and gaps leads to the development of an initial conceptual framework that guides data collection and analysis.

Phase 2- Investigation of initial conceptual framework: this involves using multiple case studies, collecting data from senior managers in leather companies in the supply chain through semi-structured interviews and secondary data sources like annual reports, sustainability/corporate social responsibility reports. The qualitative data is analysed using the NVivo software to generate themes towards achieving the research aim. To increase the validity and reliability of the findings from the interviews, both primary and secondary data sources complemented each other. Interview transcripts are sent back to interview participants for review to increase the credibility of the information provided.

Phase 3- Validation of initial conceptual and modification into a new conceptual framework: at this stage, the analysis and interpretation of data collected are used to validate the initial conceptual framework presented in the literature review chapter. The key outcome of this stage is the verification of associations or dissociations between drivers, practices and indicators through the lens of the institutional and stakeholder theory.

The empirical context will be discussed in the next section.

1.6 Structure of the Thesis

The details of this thesis are organised in six chapters which are presented below:

Chapter 1 – Introduction: this chapter provides the background to the study. The research problems, gaps, aim and objectives are presented. The industry context, the theoretical context of the research and the research methodology are also introduced.

Chapter 2 – Literature Review: this chapter presents the literature on sustainability and sustainable supply chain management. This chapter is divided into two parts. The initial part discusses the broader literature on sustainability and the triple bottom line. Following that, a dedicated comprehensive review was performed to examine the state of the art on sustainability research in the leather industry context. This is done to justify the focus of the study. The latter part of the review discusses social sustainability practices, indicators and drivers (motivating factors). The stakeholder theory and institutional theory are discussed and explored to identify the components that explain the relationship between the practices, drivers and indicators. Research gaps are identified and an initial conceptual framework is developed.

Chapter 3- Research Methodology: this section explains the research philosophy and approach to the study. Justification for the qualitative and case study approach to the study is provided. Approach to research design, data collection and analysis is also discussed. Ethical considerations and methods to ensure credibility, confirmability, transferability and dependability of interpretations are offered.

Chapter 4 - Research Findings and Discussion: the findings are discussed based on themes identified in the initial conceptual framework. The within-case analysis explains the roles of and relationship between leather supply chain actors to foster a socially sustainable leather supply chain. The cross-case analysis is executed on the four cases to discuss the impact of stakeholders and reasons (drivers) behind the implementation of social sustainability practices. Analysis of secondary reports primarily provides the details and type of indicators used to measure social sustainability performance across the leather supply chain.

Chapter 5- Theoretical Framework and Conclusion: From the findings and discussion in chapter 4, the initial theoretical framework is refined, leading to a new theoretical framework that explains the nature of the relationship between stakeholders, sustainability drivers, practices and indicators. Flow chart like diagrams is used in depicting this framework. The conclusion of the study and how the research aim and objectives are met is also presented here.

Chapter 6 - Contributions and Implications, Limitations and Future Research: this is the concluding chapter that provides the contribution and implications of the research findings to

theory and practice. Limitations encountered in the study were also discussed, providing future research directions.

1.7 Contributions of the Study

The study contributes to research and practice in various ways:

1.7.1 Contributions to Theory

1. The application of the Institutional and Stakeholder theory to understand Social Sustainability drivers.
2. The identification of the Drivers of Social Sustainability in the Leather Supply Chain.
3. The recognition that Health and Safety is necessary but not "the" Enabler of Social Sustainability.

1.7.2 Contributions to Practice

1. Stakeholder-Drivers-Practices-Indicators (SDPI) Framework can be a step-by-step guide for Leather Companies to implement SS Practices.
2. Generality of Indicators and Practices can drive potential for a consensus Social Sustainability Assessment.
3. Supplier Development can be a crucial Social Sustainability practice that activates other Sustainability Practices.
4. Leather Sustainability Certification Bodies and Associations have greater potential to improve Social Sustainability Assessments.
5. Roles of Supply Chain actors towards achieving a Socially Sustainable Leather Supply Chain.
6. Increased visibility of Social Sustainability discussions among Leather Supply Chain actors beyond a focus on regulations.

2 Literature Review

This section presents the literature on sustainability and sustainable supply chain management. This chapter is divided into two parts. The initial part discusses the broader literature on sustainability and the triple bottom line. Following that, a dedicated comprehensive review was performed to examine the state of the art on sustainability research in the leather industry context. This is done to justify the focus of the research. The latter part of the review focuses on discussing social sustainability practices, indicators and drivers (motivating factors). The stakeholder theory and institutional theory are discussed and explored to identify the components that can explain the relationship between the practices, drivers and indicators. Research gaps are identified, and an initial conceptual framework is developed.

PART 1

2.1 Overview of Sustainability

Sustainability continues to take centre stage in today's business landscape. Beyond business, it can be found littered in everyday conversations all over the world. Historically, sustainability may have emerged in the forestry literature in 1804, making it the first scientific field to show concerns about safeguarding the future generations (Wiersum, 1995). However, in the famous Brundtland report, it was not until 1987 that the concept of sustainability was largely adopted. Since then, the concept has continued to gain widespread recognition and attention (Gimenez *et al.*, 2012; Martins and Pato, 2019).

In simple terms, sustainability was defined as ensuring that meeting today's needs does not jeopardise the ability of future generations to meet their own needs (WCED, 1987). However, this definition is perceived to be ambiguous in itself (Kuhlman and Farrington, 2010; Glavič and Lukman, 2007; Vos, 2007), and its ambiguity raises questions such as, "how do we meet present needs and utilise resources properly in a way that it does not compromise the future generation of meeting their own needs?

In dealing with the ambiguity in definitions as obtained in the concept of sustainability, Connelly (2007) identified four possible ways:

1. Disregard the haziness and introduce the concept as one with no problems while acknowledging the difficulty in implementing it in practice.
2. Simply select the most desirable definition among the available interpretations.

3. Explicitly acknowledging the conceptual ambiguity "*by adopting a single analytical axis along which variations of the concept are presented*".
4. Acknowledge the diversity of definitions and scope of a concept in order to value alternative definitions while understanding the implications of these alternatives.

The fourth option is adopted in the attempt to understand sustainability conceptually (Lankoski, 2016). Following the fourth approach is a result of deductions from the literature that the concept of sustainability is hugely contested, and there's a need for cognisance and understanding of different contexts in which the concept is applicable. The quest to answer the question above has continued to prompt several definitions of sustainability among businesses, researchers, governments and organisations (Silvius, 2017; Pham and Smith, 2014; Gimenez *et al.*, 2012; Sheehan, 2009). Several definitions exist in the literature for the concept of sustainability and several authors (Kuhlman and Farrington, 2010; Vos, 2007; Glavič and Lukman, 2007; White, 2013) have confirmed this by stating sustainability definitions are in hundreds.

Unsurprisingly, this has led to little consensus about what the term means. Nonetheless, this literature review provides examples of some recent definitions from different authors. **Table 2-1** below shows an example of some definitions found in the literature.

Table 2-1: Definitions of Sustainability (Source: Developed by Researcher)

Author	Definition (s) of sustainability
(Kuhlman and Farrington, 2010)	1. A state where resources, both man-made and natural, must remain in equilibrium such that the well-being of future generations does not decline 2. equity between different generations concerning how available resources are capable of satisfying their needs.
(Yılmaz and Bakış, 2015)	Equally allocating world resources among countries, present and future generations
(Sheehan, 2009)	Integrating the environment, economy and society into a healthy system that can be maintained in equilibrium indefinitely
(White, 2013)	Harmonising and addressing social, environmental and economic concerns

Furthermore, White (2013) employed a different approach to understanding sustainability by analysing over 100 definitions. Using a web-based data visualisation tool, a tag cloud of common components of several definitions of sustainability was generated, producing a pictorial representation of the main components of the concept of sustainability as summarised in **Table 2-2.**

Table 2-2: Top 24 Words emerging from Definitions of Sustainability (Source: White, 2013)

Environment	Social	Economic	Life	System	Nature
Resources	Human	Development	Needs	Future generations	Community
Produce	Time	Earth	Generation	Ecological	World
Process	Meet	Means	People	Growth	Equity

Perhaps, the most interesting attempt to break down the barrier of a common understanding of the sustainability concept was made by Glavic and Lukman (2007). Both authors employed semantics analysis to examine some of the definitions of sustainability. The synthesis of these definitions provided a practical and clearer view of sustainability than the definitions provided by authors referenced in **Table 2-1**. For example, terms like minimisation of resource use, recycling, reuse and repair, regeneration, cleaner production, pollution control, green chemistry, waste minimisation, zero waste and life cycle assessment are some of the terms that were attributed to sustainability (Glavič and Lukman, 2007). Additionally, Vos (2007) suggested that emphasis should be placed on understanding the practicality of sustainability rather than the quest for finding a universally acceptable definition.

Providing this brief history and discussion on the concept of sustainability provides a precedent for a later discussion of the concept in the context of business and industrial implementations.

2.2 Overview of Sustainability in Business

The concept of sustainability that emerged through ecologists (in the forestry literature) has found its way into several aspects of human living and has also become important in the competitive business environment (Claro *et al.*, 2013; Gázquez-Abad *et al.*, 2015; León and Calvo-Amodio, 2017). An increasing number of companies globally are gearing profound efforts towards integrating sustainability into their business operations (Connelly, 2007; León and Calvo-Amodio, 2017; Labuschagne *et al.*, 2005). Examples of those companies include

Johnson and Johnson, Disney, Nike. Google, Starbucks (Lawson, 2017). In fact, Sheth, Sethia and Srinivas (2011) suggested that the effectiveness with which an organisation deals with sustainability challenges could determine its future success or failure.

However, while it has been established that sustainability is important to businesses, several industries still face several challenges in implementing sustainability practices. The reason behind this challenge has been defined by a host of authors (Montiel, 2008; Hannon and Callaghan, 2011; Lankoski, 2016; Ahi and Searcy, 2015; Epstein and Roy, 2001) as a lack of an agreed interpretation of sustainability in relation to their businesses and difficulty in implementing sustainability strategies. In some contexts, sustainability is similarly used with corporate social responsibility (CSR), which implies that companies, through interaction with their stakeholders, voluntarily contribute positively to environmental and social issues in the society (Staniškienė and Stankevičiūtė, 2018; Baumgartner, 2014). However, the criticism against CSR is the potential that it neglects the economic mandate of companies to make a profit and value to its shareholders (Castelo *et al.*, 2007). Hence, Elkington (1998) proposed the triple bottom line concept that suggests that corporations need to concurrently cater towards environmental responsibility, social responsibility and economic bottom line, a view that has since been widely adopted by among researchers, governments and businesses (Mani *et al.*, 2015; Brenner and Hartl, 2021).

Furthermore, some authors have suggested that a one size fits all definition should be discarded for more specific definitions that reflect the strategies and development of organisations (van Marrewijk, 2003). Hence, this literature review provides a few examples of definitions (**shown in Table 2-3**) found in the literature regarding sustainability in business. Preceding that, it is important to understand that "sustainability in business" in the literature has otherwise been referred to as "business sustainability" (Labuschagne *et al.*, 2005; León and Calvo-Amodio, 2017) and "corporate sustainability" (Lankoski, 2016; van Marrewijk, 2003; Lodhia and Martin, 2014).

Table 2-3: Definitions of Corporate Sustainability (Source: Developed by Researcher)

Author(s)	Title of publication	Definition
(Labuschagne *et al.*, 2005)	Assessing the sustainability performances of industries.	Entails the integration of goals of social equity, economic stability and environmental performance into an organisation's business practices.
(International Institute for Sustainable Development., 1994)	Business strategy for sustainable development: Leadership and accountability for the '90s	adoption of business practices, strategies that satisfy an organisation's present needs and their external environment (stakeholders) while safeguarding and sustaining natural resources for future generations.
(McDonough and Braungart, 2009)	Cradle to Cradle: remaking the way we make things	sustainability emphasises designing products and services that result in zero waste and enrich the natural and social environment both during its lifecycle and after it.
(Society for Human Resource Management, 2012)	Sustainability: What is Corporate Sustainability and how can HR help make a business case for it.	contribution to sustainable development focusing on economic viability, environmental integrity and social prosperity to improve the quality of life of all stakeholders throughout the supply chain

From this point forward, "corporate sustainability" (CS) refers to sustainability in the context of business. Regardless of the definition adopted, it is essential to note that sustainability should be viewed as a "journey" rather than an end result (León and Calvo-Amodio, 2017). As a result, corporate sustainability should be approached as a continuous transformative process, and organisations should continually work towards achieving their defined sustainability goals.

Van Marrewijk, (2003) went further to suggest five main motives behind the sustainability ambitions of businesses, as shown in **Figure 2-1**.

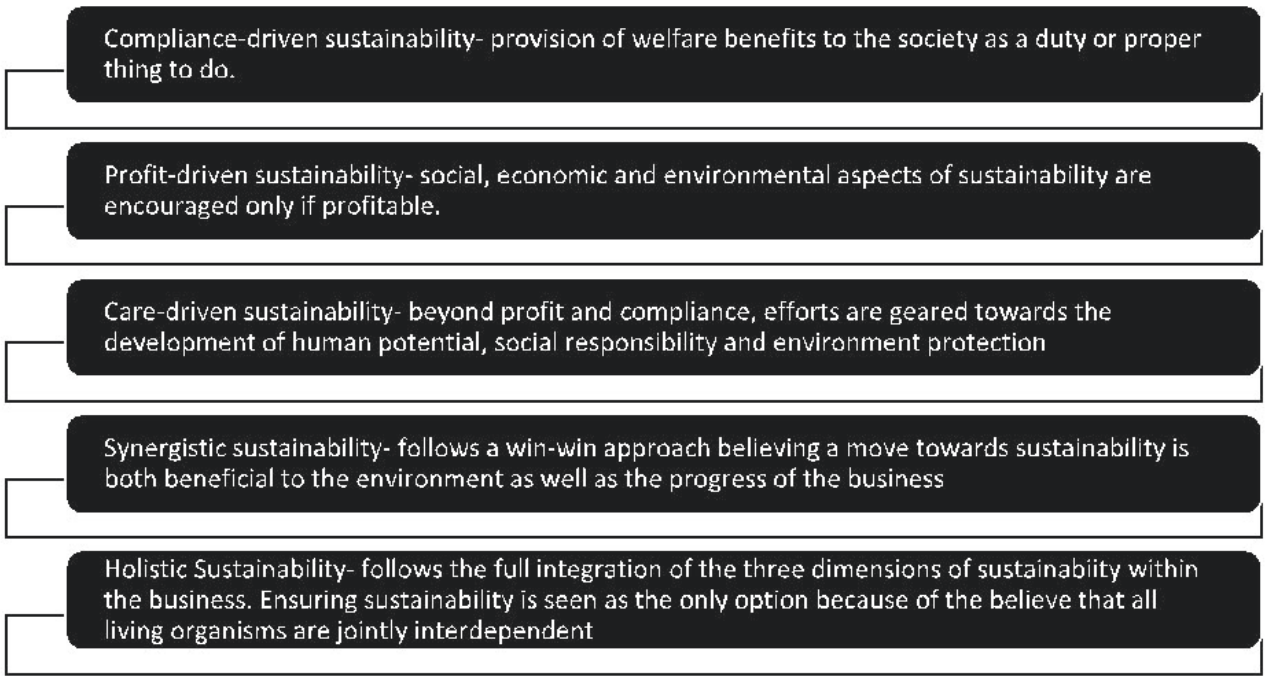


Figure 2-1: Motives behind Sustainability Ambitions of Businesses (Source: Van Marrewijk, 2013)

Dealing with the compromises in perspective is what management strategically plan for. Several authors suggest that organisations take the holistic approach to sustainability implementation (considering the triple bottom line) in order to contribute adequately to sustainable development (Engert *et al.*, 2016; Baumgartner, 2014; Lozano and Haartman, 2017; Lozano, 2015).

Typical examples of the holistic focus on sustainability exist in today's business environment. For example, the Fairtrade brand, which usually covers a range of producers of coffee, tea, cocoa, seed cotton, flowers and plants, cane sugar, bananas, fresh fruit, and nuts, certifies players in the supply chain of these listed products. For a product to be sold under the Fairtrade mark, all supply chain actors, including importers and exporters, must also be Fair Trade certified. The standards are tailored for each crop and the different actors involved in the chain. It also focuses on economic, social and environmental sustainability through price floor, Fairtrade premium, stability and access to credit, better working conditions, institutional structure, and various environmental protection efforts (Fairtrade, 2019).

On the other hand, the Rain Forest Alliance brand is responsible for enterprises in forestry, tourism and agricultural sectors related but may not be limited to bananas, cocoa, coffee, tea. It focuses on the three aspects of sustainability in the supply chain in the related business sectors it operates in, through more efficient farm management, improved profitability and competitiveness, more collaboration between farmers and conservationists; efficient water management, protection of wildlife habitat; and reduced threats to the environment and human health as well as improved conditions for farm workers (RFA, 2018). Furthermore, the Higgs Index is a self-assessment tool for evaluating companies' social and environmental sustainability related to the apparel, textile and footwear industries (SAC, 2018). These certification institutions and associations prove to have a unique role in improving the triple bottom line performance of the industry they serve.

As businesses are gearing efforts towards sustainability, the leather industry is not excluded (Nicoleta *et al.*, 2014). It is currently witnessing an influx of research in the field of sustainability, given the industry is perceived as one of the most polluting industries in the world, characterised by its high use of water and chemicals (Sathish *et al.*, 2016; Kanagaraj *et al.*, 2015). From the experience and conversations with experts in the industry, backed up with evidence from the literature, much focus has been on the environmental sustainability of the leather supply chain (discussed later). For instance, the Leather Working Group, a multi-stakeholder group set up to develop and maintain an environmental stewardship protocol specific to the leather manufacturing industry, is one of the leading organisations focused on ensuring sustainability in the leather industry. Its environmental stewardship protocol concentrates mainly on assessing organisations' environmental impacts along the leather supply chain (LWG, 2018). Hence, the leather industry/supply chain provides a distinct case for investigation in social sustainability implementation.

2.2.1 Sustainability in Supply Chains

In grounding the foundation for this section of the literature review, the definition of related terms is established. First, the supply chain (SC) is defined as the network responsible for obtaining and transforming raw materials into finished products, which ends with the final user (Jain *et al.*, 2009; Seuring and Muller, 2008). Given the evolution of the supply chain concept over the years, there has been a shift from the focus on material flow to the inclusion of capital and information flows, both upstream and downstream and relationship networks (Ahi and Searcy, 2015; Seuring and Muller, 2008).

The management of the supply chain is called supply chain management. This is defined comprehensively by Mentzer *et al.* (2001, p.18) as the *"systemic, strategic coordination of the traditional business functions and the tactics across these business functions within a particular company and across businesses within the supply chain, for the purposes of improving the long-term performance of the individual companies and the supply chain as a whole"*. Another comprehensive definition of Supply Chain management is *"the management of relationship networks within a firm and between interdependent organisations and business units consisting of material suppliers, purchasing, production facilities, logistics, marketing and related systems that facilitate the forward and reverse flow of materials, services, finances and information from the original producer to final consumer with the benefits of adding value, maximising profitability through efficiencies and achieving customer satisfaction" (Stock and Boyer, 2009, p.706)*

In recent times, the SCM concept has become a frequent topic of discourse among business practitioners and researchers (Ageron and Spalanzani, 2012). Similarly, the concept of sustainability has also been gaining a considerable amount of attention in supply chain studies (Bateh *et al.*, 2013; Gimenez *et al.*, 2012; Chen *et al.*, 2017; Hussain *et al.*, 2018; Islam *et al.*, 2020; Pinto and Allui, 2016). Ahi and Searcy (2015) noted that supply chain management has the ability to influence the environmental, social and economic dimension (triple bottom line) of an industry. Furthermore, Faisal (2010), Ashby *et al.* (2012) and Reefke and Sundaram (2017) suggested that adoption of sustainability in an industry can be promoted by focusing on the supply chain since the supply chain encompasses the consideration of the product from raw material processing down to its distribution to the final customer.

Applying the sustainability concept to supply chain management produces "Sustainable Supply Chain Management" (SSCM). Similar to the concept of sustainability which has seen several definitions, several definitions have also been put forward for SSCM by different authors. **Table 2-4** presents some definitions of SSCM proposed by different authors.

Table 2-4: Definition (s) of Sustainable Supply Chain Management (Source: Developed by Researcher)

Authors	Definition(s)	Keywords
(Ahi and Searcy, 2013, p.339)	*"the creation of coordinated supply chains through the voluntary integration of economic, environmental, and social considerations with key inter-organisational business systems designed to efficiently and effectively manage the material, information and capital flows associated with the procurement, production, and distribution of products or services in order to meet stakeholder requirements and improve the profitability, competitiveness and resilience of the organisation over the short and long-term".*	Voluntary, economic, social, environmental, integration, inter-organisational, resilience,
(Closs *et al.*, 2011, p.102)	*"Reflects the firm's ability to plan for, mitigate, detect, respond to, and recover from potential global risks. Risks involving substantial marketing and supply chain considerations include product development, channel selection, market decisions, sourcing, manufacturing complexity, transportation, government and industry regulation, resources availability, talent management, alternative energy platforms, and security".*	Risk management

Regardless of many existing definitions, common themes exist: voluntariness, cooperation, inter-organisational, triple bottom line (economic, social, environment), transparency, long-term, integration, resilience, and risk management (Martins and Pato, 2019). The following section explores what sustainability and sustainable supply chain means to the leather industry as there is no consensus definition.

2.2.2 Sustainability in the Leather Supply Chain: Establishing the Research Context

The global demand for natural resources to support human living is steadily increasing due to resulting population growth. One of such resources on demand is leather. On average, an individual uses one or more leather-made materials (belt, shoe, bag, watch strap) at a point in time. Leather as an intermediate "industrial" product (Jaegler, 2016; Joseph and Nithya, 2009),

is derived as a by-product from slaughtered animals such as cattle, sheep, pigs. reptiles, goats, fishes, and others such as deer, antelopes, chamois, rabbits etc. (BASF, 2007).

The leather supply chain is a globalised one (MVO Nederland, 2013) and consists of breeders, slaughterhouses, tanneries, manufacturers (Jaegler, 2016), as well as retailers, chemical and technology providers, service providers such as logistics companies, marketing, information technology and customers. According to MVO Nederland (2013), the leather supply chain is in three stages, i.e. obtaining raw materials- hides and skins (first stage), tanning and conversion of hides and skins into the leather (second stage) and manufacture of different leather products (third stage).

The second stage is a capital-intensive stage, while the manufacturing stage is considered the labour-intensive stage (MVO Nederland, 2013). China is regarded as the highest producer, importer and exporter of leather in the world (UNIDO, 2010; MVO Nederland, 2013), with a global quantity of 18%. 63% and 43%, respectively (MVO Nederland, 2013). Joining China in the top producing countries are Italy (10%), Korea (7%), India (7%), Russia (6%) and Brazil (6%). Globally, the product that is generated from leather in higher quantities is footwear (with leather uppers) (UNIDO, 2010; MVO Nederland, 2013), accounting for more than 50% of the market share.

Given the complex nature of the leather supply chain, the issue of sustainability is quite crucial (Moktadir *et al.*, 2018). The industry is also aware of sustainability issues and is working towards addressing them. For example, the Leather Working Group, a multi-stakeholder group (responsible for developing and maintaining an environmental stewardship protocol specific to the leather manufacturing industry), is one of the leading organisations focused on ensuring sustainability in the leather industry. This is done through its environmental stewardship protocol focuses mainly on assessing players' environmental impacts along the leather supply chain (LWG, 2018).

In a traditional industry with manifold members such as chemical suppliers, tanneries, manufacturers and consumers, implementing and evaluating a holistic sustainability performance can be complex and challenging (Qorri *et al.*, 2018). However, the industry is taking sustainability seriously due to pressure from stakeholders, NGOs, government, and consumers (Leather Naturally, 2018). Initiatives such as Tannery of the Year which seeks to award the best performing tanneries in the world in relation to their CSR, operational and sustainability practices. are also assisting in improving the industry's image.

Elkington's statement about businesses conceiving sustainability as "environmental sustainability" can be applied to the leather industry (Elkington, 1997). In fact, based on the observation of literature, studies relating to the topic of sustainability in the leather industry have been inclined towards green chemistry, pollution control, waste and water management, all of which can be referred to as environmental sustainability practices (Glavič and Lukman, 2007). Conceiving sustainability as environmental sustainability may not necessarily mean a total neglect of the two other dimensions of sustainability (economic and social sustainability). For example, the impact of green chemistry practices could lead to cost savings (economic) and a reduction in employees' exposure to toxic chemicals (health and safety). However, taking a green chemistry approach by a tannery may not address the issue of child labour used in tannery operations. As a result, it is necessary to consider each dimension as part of a whole.

Increasingly, in manufacturing industries like leather, the implementation of sustainable manufacturing practices in production activities takes precedence. Sustainable manufacturing is viewed as a component of the broad sustainability concept and defined as "*the techniques, policies and procedures a firm uses to create manufactured products, that use processes that minimise negative environmental impacts, conserve energy and natural resources, are safe for employees, communities and consumers and are economically sound*" (Roberts and Ball, 2014, p.161). The expected results of a successful ongoing implementation of sustainable manufacturing practices are documented to lead to a reduction in operational costs, quality improvement (Roberts and Ball, 2014), increased global competitiveness (Smith and Ball, 2012), the safety of products to society (Gupta *et al.*, 2018a) and improved health and safety profile of employees and community.

Hu *et al.* (2011) suggest a sustainable leather industry strikes a balance between environmental, social, and economic conditions. Consequently, an understanding of the triple bottom line of sustainability in the leather industry is important. As such, the present state of sustainability research in the leather industry is investigated.

2.3 Gaps in Sustainability Research in the Leather Supply Chain

In this first and broad aspect of the literature review which was geared towards further understanding sustainability in the leather industry and the present discourse, there was a disparity between what was observed while reviewing the leather sustainability literature and what authors have broadly suggested. Authors in the general sustainability field have usually informed that sustainability studies in developing countries lag those in developed countries

(Kaur and Sharma, 2018). However, while conducting a preliminary study through leather specific sustainability literature, it was observed that studies that were based in developing country contexts (like India, China, Bangladesh, etc.) were significantly more than studies in developed country contexts (Abdul Moktadir, Rahman, Jabbour, *et al.*, 2018; Singh and Gupta, 2013; Gupta *et al.*, 2018; Jung and Oh, 2019).

Therefore, the observation leads the researcher to conduct a comprehensive literature review study that explores the state of knowledge regarding sustainability in the leather industry, focusing on the triple bottom line research. This section of the review starts by reviewing current literature on sustainability in the leather industry (and methodology adopted). Then, key findings are discussed, followed by the conclusion and justification of the present study.

In the leather manufacturing industry context, sustainability research has been growing in recent years but has primarily been focused on the environmental aspect. Topics relating to the economic aspect have been explored (although less than the environmental aspect) (Chen *et al.*, 2014; Zuriaga-Agustí *et al.*, 2015). However, far fewer studies about the social aspects exist (Śmiechowski and Lament, 2017; Gupta and Racherla, 2018). As sustainability is often seen as a journey rather than a destination (Lozano and Haartman, 2017; Lankoski, 2016), the same view could be adopted for corresponding research. Hence, it is important to understand where present research is to identify where the next steps in the "journey" (sustainability research) could be.

Although several publications relating to sustainability across different industries exist, the need to conduct industry-specific studies has been suggested in the literature, as the dynamics of operations and activities differ significantly from one industry to another (Morais and Silvestre, 2018; Popovic *et al.*, 2018). To the authors' knowledge, in the leather industry context, there is an absence of a recent study that evaluates the progress made so far in triple bottom line research.

Hence, this review aims to synthesise existing knowledge on sustainability research in the leather industry to identify trends and opportunities for future research, some of which will be investigated in this study. Explicitly, to achieve the above aim, the following questions (Q) are explored; Q1: What are the sustainability research trends in the leather industry? Q2: What are the key themes that have been studied in relation to the triple bottom line research in the leather industry context? Q3: What are the opportunities that could be explored for future research towards a sustainable leather industry?

The approach taken to answer the above questions for this section of the literature review is presented below.

2.4 Approach to the Review on Research Gaps

In order to answer the questions stated above, a narrative and integrative literature review of accessible peer-reviewed literature from selected relevant journals was followed (from this section to sub-chapter **2.5.4.1**). A similar approach was employed by Gioia *et al.* (2013) and Garcia-torres *et al.* (2019). The applicability of an integrative literature review design is suitable to studies that seek to critique, analyse, and synthesise representative literature on particular subjects or topics with the end goal of deriving frameworks and viewpoints. On the other hand, a narrative literature review is helpful to provide an overview of key definitions of terms relating to different aspects of sustainability that have been covered on a given subject (Garcia-torres *et al.*, 2019).

As shown in **Figure 2-2**, peer-reviewed journals published since the turn of the century, i.e., from 2001 to 2019 were prioritised to ensure a wide scope to the review since a study of this depth has not been previously carried out in the leather industry context. The cut-off date for this section of the literature review was limited to publications until 2019 because it was the last full year which captured the normal dynamics and focus of research in the industry before the COVID-19 pandemic in 2020. In addition, academic journals were prioritised as they are highly regarded to play a key role in a discipline development (Garcia-torres *et al.*, 2019). Keywords used in search strategy include {"Sustainable and Leather"}, {"Sustainability" AND "Leather"}, {"Green" AND "Leather"} {"CSR" AND "Leather"}, {"Corporate Social Responsibility" AND "Leather"}, {"Social Sustainability" AND "Leather"}, {"Environmental Sustainability" AND "Leather"} and {"Economic Sustainability" AND "Leather"}.

These keywords were entered in publisher websites such as Taylor and Francis, Elsevier, Emerald Insight, and online search engines such as Google Scholar and Web of Science, as guided by previous related studies that have established the significant presence of sustainability related publications from these sources. A complementary snowball approach was also used to find related studies in some of the articles found. This search strategy was used because of the observed dispersed nature of the present literature on sustainability in the leather industry. Exclusion criteria were applied to conference papers and papers whose emphasis was not related to leather sustainability and suspected papers published in "predatory

journals". Corporate Social Responsibility (CSR) focused papers were included as long as they were used synonymously with sustainability.

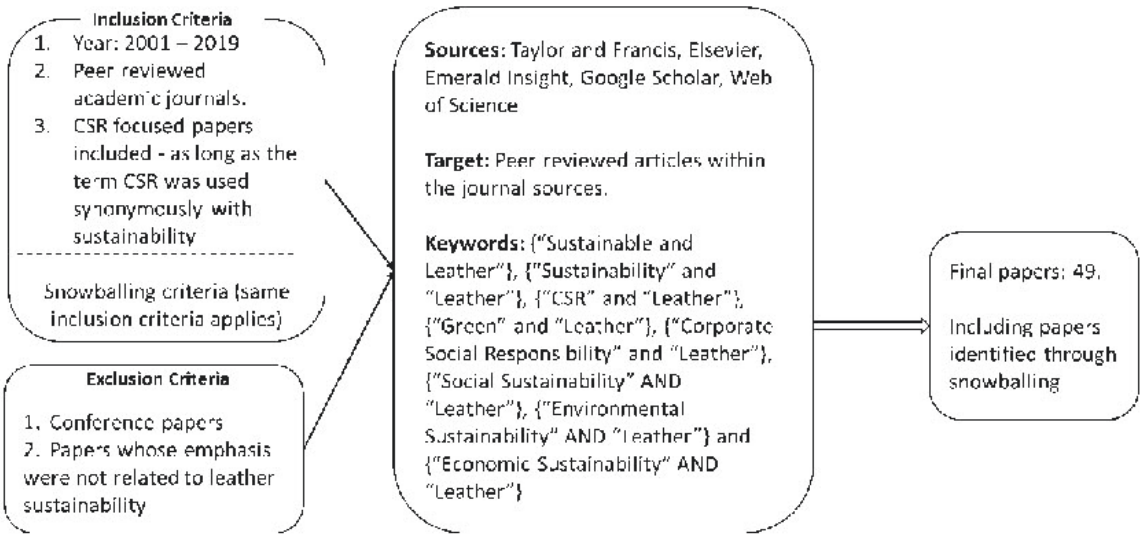


Figure 2-2: Search Strategy and Sampling Process (Source: Developed by Researcher)

After the screening process, 49 papers were reviewed to answer the earlier indicated questions. While reading through the articles, an Excel-based sheet was created to detail information such as the title of article and journal publisher, year of publication, the country context of the article, key findings, related sustainability dimensions and key theme (s) each articles explored, as shown in **Figure 2-3.** In the following sections, the three main sustainability dimensions (environmental, social and economic) are initially discussed to assist in analysing the relevance of several themes covered in the literature to each dimension.

	Title of article	Journal name	Year of Publication	Country context	Economic	Social	Environ-mental	Key themes	Key findings	U
1	Sustainability strategies in the Indian leather industry: an empirical analysis	Benchmarking: An International Journal	2018	India	×	×	×	Competitiveness according to triple bottom line trade-offs	Firms in [illegible] India have been leveraging on trade-offs in their focus on the three action lines to derive competitive advantage over others	

Figure 2-3: Sample of Analysis using Microsoft Excel (Source: Developed by Researcher)

Once the exclusion and inclusion principles of each article had been met, the article's title was placed in the necessary column, followed by the journal name and year of publication. Next, the country context was obtained by reviewing either or all of the article title, respective abstracts and the methodology section. Articles with no country contexts were represented as N/A to reflect "non-applicability". Finally, guided by the definitions and constituents of social, economic and environmental sustainability defined in the literature review section, the content of each article was reviewed to extract the key themes each paper addressed.

A key theme in this regard refers to the key subject or issue addressed in each paper. For example, in **Table 2-6**, the core theme of the article was competitiveness/competitive advantage (an economic theme) which was discussed in relation to the triple bottom line. Each article's abstract and discussion/research findings section were then analysed to obtain the study's key findings, which is integral to the discussion in this present study.

The following sections discuss the distribution of articles based on year of publication, geographical focus, sustainability dimensions addressed, and themes covered in sustainability dimensions.

2.4.1 Distribution of Relevant Articles According to Year of Publication

Figure 2-4 below shows an increase in publications in the field of sustainable leather industry over the period observed. The sharp increase in publications from 2016 to 2019 could prove the growing attention from researchers and actors in the field of sustainable leather supply chain management (SLSCM), as the industry seeks to continuously improve the sustainability of its operations.

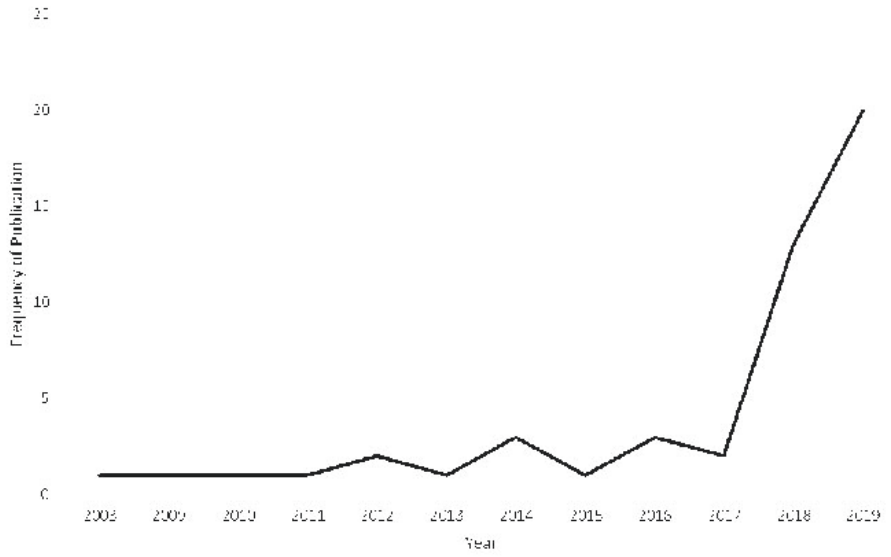


Figure 2-4: Distribution of Relevant Articles according to Year of Publication (Source: Developed by Researcher)

A significant increase in sustainability research in the past five years could be due to several reasons. First, the rise in research could be related to the inauguration of the SDGs by the United Nations in 2015 that also tasked businesses, governments and research institutions to work towards the goals. Therefore, it can be opined that the advent of the SDGs may have had a positive multiplier effect on sustainability research in the leather industry. Secondly, animal

rights issues. waste management, pollution and circular economy are some of the recent highly discussed topics in the larger textile industry, of which the leather industry is a subset. Furthermore, there has been a growing awareness of the public, customers, businesses, and the research community to address these sustainability-related issues, leading to increased sustainability studies in the leather industry.

2.4.2 Distribution of Relevant Articles According to Journal Distribution

The distribution of the articles used in the study, which were extracted from 31 different journals, are presented in **Table 2-5**. Journal of Cleaner Production featured as the key journal publishing content relating to sustainability in the Leather Industry, with 14 papers, followed by "Sustainability" with four papers. This is followed by two articles in both the Sustainable Production and Consumption and Management of Environmental Quality Journals. One article each from 27 other journals were also reviewed. Hence, the Journal of Cleaner Production could be considered the core journal in SLSCM, although other journals identified could be equally viable publication channels.

Table 2-5: Distribution of Relevant Articles according to Journals (Source: Developed by Researcher)

Journal	Number of papers
Journal of Cleaner Production	14
Sustainability	4
Sustainable Production and Consumption	2
Management of Environmental Quality	2
Other (one from each 27 journals)	27

The broad presence of publications in a wide and high number of journals also confirms the dispersed nature of present literature on sustainability in the leather industry, thereby contributing to reliability of the methodology employed in this study.

2.4.3 Distribution of Relevant Articles by Geography

After analysing the geographical contexts of selected articles, it was identified that developing and emerging countries constitute the focus of several of the studies, as shown in **Figure 2-5.** Out of 49 articles reviewed, 24 (48%) had research contexts in developing emerging economies including China, India, Pakistan, Bangladesh, South Africa and Sri Lanka. Nine of the

publications had research contexts situated in developed countries – either in the USA (2 – 4%) or Europe France, Italy, Poland and Turkey (7 14%), while 17 publications had no geographical research contexts. Also, out of 38 articles published between 2016 and 2019, 52% were contextualised on developing/emerging countries, while 26% were focused on developed nations such as France, Italy, Poland, and the USA.

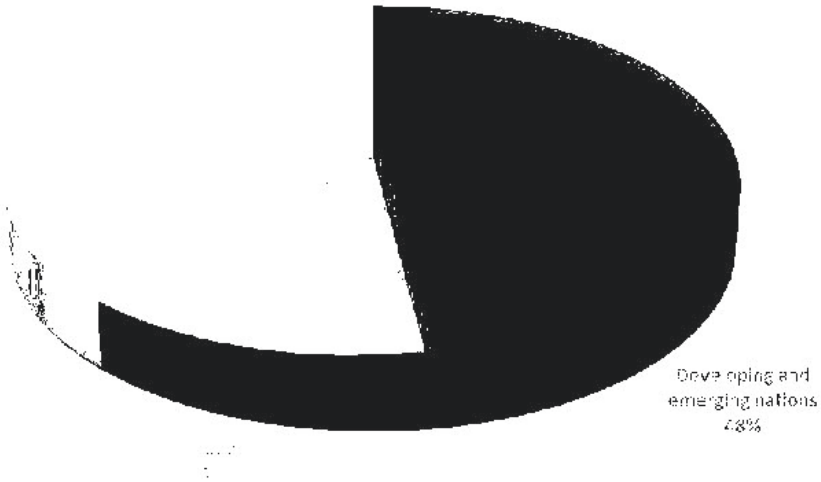


Figure 2-5: Distribution of Articles by Geography Context (Source: Developed by Researcher)

The higher prevalence of leather sustainability research in the "developing and emerging nations" geographical context could be for a number of reasons. First, the general narrative that less sustainability research in developing and emerging contexts exists (Morais and Silvestre, 2018) may not apply to the leather industry. Perhaps the narrative holds, this could have been a factor leading researchers to fill the perceived gap, thereby contributing to the increased leather sustainability research projects in developing/emerging country contexts. Secondly, the leather industry contributes significantly to the economic growth of developing/emerging economies. For example, the leather industry ranks second in economic growth contributions in Bangladesh (Islam *et al.*, 2020), which could necessitate the adoption of sound sustainability manufacturing techniques and related research. The leather industry also holds significant importance to the economy of countries like China, India, Pakistan, where their western counterparts source leather products (Wahga *et al.*, 2018; MVO Nederland, 2013).

To develop sound sustainable manufacturing practices, research is usually conducted to discover new and innovative techniques, using available resources in particular geographical contexts. In addition to this, the leather industry in certain developing countries/emerging countries are still facing challenges integrating sustainable manufacturing techniques into their

operations (Munny *et al.*, 2019). Hence, the possible reasons for skewness in the distribution of articles towards developing/emerging country contexts. However, to understand sustainability issues in the global leather industry holistically, further research could focus on developed nations, leading to the comparison of best practices and understanding issues that stakeholders from different countries face.

2.4.4 Distribution of Relevant Articles According to Sustainability Dimension Focus

As shown in **Figure 2-6**, the integrative literature review also revealed that 92%, 44%, and 38% of the reviewed articles discussed environmental, economic, and social sustainability, respectively, individually or with other sustainability dimensions.

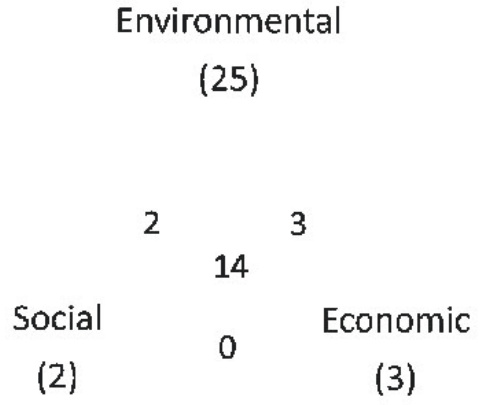


Figure 2-6: Distribution of Relevant Articles according to Triple Bottom Line Focus (Source: author)

Overall, 14 out of 49 reviewed articles concurrently addressed the three sustainability dimensions in the time period evaluated. Furthermore, out of 38 articles published between 2016 and 2019, 13 focused on the three aspects compared to one out of 11 articles published between 2001 and 2015. The concentration of articles towards the dominant environment aspect could be due to the nature of leather industry operations itself. The industry is known to use significant environmental resources such as water, chemicals, and energy while generating a considerable amount of liquid and solid wastes, which should be managed (Dixit *et al.*, 2015; Decouple, 2013). Hence, several sustainability studies are conducted to discover new techniques to manage waste, recycle/reuse waste and also reduce the use of processing inputs such as water and chemicals.

Also, historically, sustainability had been considered just as an environmental concept (Elkington, 1997) and so it is not surprising that there is a significant number of articles available in the environmental domain. However, there may be an indication that researchers are increasingly becoming aware of the need to address the three aspects concurrently, evident in a greater number of papers (13) written on the three main dimensions in the last four years. This suggests some progress in recent years on the holistic understanding of sustainability in the industry.

In the discussions that follow in the next sections, the inter-relatedness of the triple bottom line dimensions becomes significantly apparent. While the discussions in some studies addressed all triple bottom line dimensions either marginally or wholly, as represented in **Figure 2-6**, the core theme of each article was used in grouping them under each category discussed in the next section.

2.5 Discussion of Themes relating to the Triple Bottom Line in the Leather Industry

In this section, the result of the analysis of the sampled papers is presented to address the questions identified earlier. Themes identified are discussed under each sustainability dimension relating to the triple bottom line. General topics that relate to all sustainability concurrently are initially discussed.

2.5.1 Themes relating concurrently to all aspects of the Three Dimensions in the Leather Industry

Results show that there has been a number of themes discussed in relation to all three dimensions, as shown in **Table 2-6**. This spans the identification of drivers that influence sustainability actions, impact or progress measurement, potential barriers to sustainability implementation and the interrelationship/trade-offs that could exist within the dimensions, emphasising the importance of considering how a lack of/partial focus on one aspect could lead to disproportionate implementation in companies. A breakdown of the key themes generated from the analysis is represented below.

Table 2-6: Themes related to all Three Sustainability Dimensions (Source: Developed by Researcher)

Themes	Author(s)
Relationship between triple bottom line performance	Gupta and Racherla (2018)
Sustainability drivers	Moktadir *et al.*(2018); Wahga *et al.*(2018)
Barriers to Sustainable Supply chain	Moktadir *et al.* (2018), Uddin *et al.* (2019); Jaegler (2016)
Sustainability reporting	Śmiechowski and Lament (2017)

First, the inter-relationship between the three dimensions was explored by Gupta and Racherla (2018) based on the focus of governments in three different states in India. The result signifies that a negative correlation can emerge between the dimensions if adequate and proportional focus on the three is not considered. For example, there was a substantial negative relationship between social and environmental performance, which was reported to be due to a higher push for environmental compliance in one of the three Indian states accessed. Moktadir *et al.* (2018) indicated that this "push" by one of the states towards environmental compliance represents what is referred to as sustainability drivers, which means factors that influence companies to implement sustainability practices.

Indeed, Moktadir *et al.* (2018) identified and placed drivers of sustainable practices in the leather industry in Bangladesh in four main categories namely: "knowledge about the circular economy", "customer awareness", "leadership and commitment from top management" and finally, "government and support legislation". Additionally. Wahga *et al.* (2018) revealed that pressures that drive sustainable entrepreneurial practices in Bangladesh include international customers' requirements, the value of individual owners and managers, educational and awareness-raising activities, competitive gains, environmental regulations, maintaining reputation and industry dynamism. Although these drivers were identified in relation to Bangladesh, they could also apply to companies from different parts of the world.

However, achieving a sustainable supply chain in the leather industry could face two types of barriers such as causal – lack of awareness of local customers in green products and lack of commitment from top management and be influenced by lack of reverse logistics practices and outdated machineries (Md Abdul Moktadir *et al.*, 2018). Similarly, in another study, Uddin *et al.* (2019) revealed that the high cost of advanced technology is the most important barrier to the implementation of green supply chain management. Additionally, key issues identified by

Jaegler (2016) related to hide defects (caused by breed of animals, transportation or slaughterhouse conditions and inadequate training of actors), lack of specialised training and unbalanced involvement of relevant stakeholders.

To overcome some of these challenges, Jaegler (2016) suggested measures such as education, building a public-private partnership, investment in the quality of hides and development of a sustainable model. Although some of these challenges are still posed to companies in the global leather supply chain, significant efforts are being made to address these challenges. Some of these efforts are being presently studied by the authors as part of future research.

Another key theme is sustainability reporting which involves organisations disclosing details of sustainability endeavours and/or performance over a period of time, either quarterly or yearly or bi-annually. After accessing the drivers to which companies publish reports, Śmiechowski and Lament (2017) found out that there was no proven positive correlation between pro-ecological actions of tanneries and sustainability reporting due to the voluntary nature of reporting.

Instead, legal regulations were reported to be the main cause of pro-ecological actions and the level of actions usually depends on factors such as headcount, business format/strategy and time in business. Comparing large and small businesses, it was stated that the latter do not usually prepare sustainability reports due to financial constraints, but this does not translate to a lack of pro-ecological actions. This information could be useful for policy makers and relevant actors when considering actions related to companies' reporting.

To conclude, the variety of themes identified proves the potential depth of practices that organisations should consider in developing holistic sustainability strategies. The next section discusses each dimension in the triple bottom line, starting with an overview of what each dimension means and followed by the themes that have been explored in the literature relating to the leather industry.

2.5.2 Environmental Sustainability in the Leather Industry

Elkington (1997) referred to environmental sustainability as the "planet" aspect of sustainability. Goodland (1995) defined environmental sustainability simply as the "maintenance of natural capital" in such a way that there is a balance between the two services the environment provides: the source and sink services (Andersson and Mackenzie, 2004; Goodland, 1995). Morelli (2011, p.5) comprehensively defined environmental sustainability as

"a condition of balance, resilience, and interconnectedness that allows human society to satisfy its needs and preventing it from going beyond the capacity of its supporting systems to continue to regenerate the services necessary to meet those needs nor by our actions diminishing biological diversity".

In assessing environmental sustainability in the leather industry, Wolf *et al.* (2013) adopted a "sustainability footprint approach" to depict the possible effects the leather supply chain can have on the environment, as shown in **Figure 2-7.**

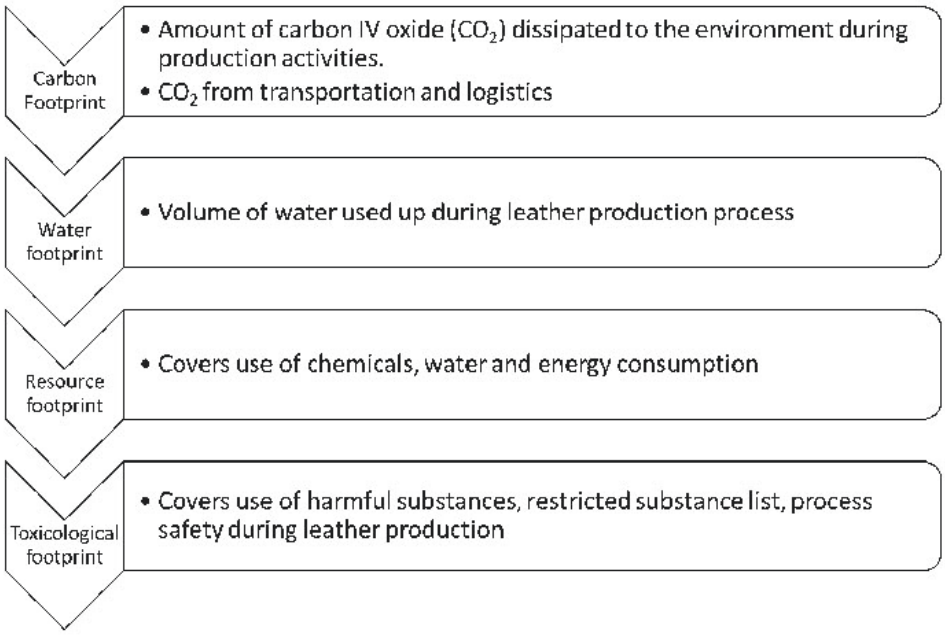


Figure 2-7: Environmental Impact of the Leather Industry (Source: Wolf et al, 2013)

The issues that arise due to these footprints are well documented in the leather industry as they form a basis of discussion among leather experts. Indeed, publications relating to the environment are said to dominate previous research on sustainability in the leather industry (Marconi *et al.*, 2017). Also, the indicators to assess the environmental sustainability credentials of leather-related companies are also well established. This is reflected in the environmental stewardship tool of the Leather Working Group and in the sustainability reports of different leather companies.

Due to the interconnectedness of the dimensions, environmental endeavours can have multiplier effects on social and economic sustainability and vice versa.

2.5.2.1 Themes relating to the Environmental Dimension in the Leather Industry

In the sustainable leather industry literature, the prevalence of research in the environmental aspect is still evident, as seen in the number of related articles identified in this study. Indeed, dominant discussions on the environmental aspect have been related to waste management and circular economy, pollution prevention and control, and green chemistry. Broadly, the "sustainable manufacturing techniques" theme relates to other themes mentioned in **Table 2-7** but not specific enough to be placed directly under the other listed themes. Hence, "sustainable manufacturing techniques" in the context of environmental sustainability could refer to practices that aim to prevent and manage pollution, manage waste efficiently, use green chemistry approaches, employ energy-efficient methods and ensure a healthy life cycle of leather goods.

Table 2-7: Themes relating to Environmental Sustainability (Source: Developed by Researcher)

Themes	Author(s)
Pollution management (prevention and control)	Kumar Gupta *et al.* (2018); Kanagaraj *et al.*(2015); Basu *et al.* (2019); Haque *et al.* (2019)
Life Cycle analysis	Joseph and Nithya (2009)
Green Chemistry	Krishnamoorthy *et al.* (2012); Sathish *et al.*(2016); Shirmohammadli *et al.* (2018); Qiang *et al.* (2018); Pandi *et al.* (2019); Mehta *et al.* (2014); Panda *et al.* (2016)
Waste Management and/or Circular economy	Selvaraj *et al.* (2019); Gupta and Gupta (2019); Hu *et al.* (2011); Kılıç *et al.* (2018); Raghava Rao *et al.* (2014); Li *et al.* (2019)
Sustainable manufacturing techniques	Dwivedi *et al.* (2019); Bacardit *et al.* (2015); Islam *et al.* (2018); Jayanthi *et al.* (2019); Pacheco *et al.* (2019)
Energy Efficiency	Moktadir *et al.* (2019); Gerek *et al.* (2019)

Pollution management featured as a key theme in this dimension, with "medium" and "technology-based" strategies emerging towards pollution management (reduction and control). Medium based strategies suggest changes in the processing medium for the conversion of hides and skins to finished leather, e.g. replacement of salted skin in a chromium salt tanning agent with a phosphonium based tanning agent, resulting in a reduction in dissolved solid wastes in effluents from 40000 parts per million to 5000 parts per million (Kumar Gupta *et al.*, 2018). On the other hand, a technology-based strategy could be interpreted as employing

some form of improved technology/technique to improve processing efficiency that could eventually lead to reduced pollution loads of pollutants.

For example, Kanagaraj *et al.* (2015) identified techniques such as enzymatic dehairing, improved biological methods for bio-degradation of dyes and azo-dyes, silica gels, boric acids etc, as suitable and better replacement for salt-based preservation. These techniques were suggested to reduce pollution loads related to toxic substances like chloride levels, biochemical oxygen on demand (BOD), chemical oxygen demand (COD), total suspended solids (TSS) and total dissolved solids (TDS). Further details on these techniques can be found in the referenced articles.

Circular economy (CE) and waste management were also core themes discussed in the literature. These could be positively interrelated with other themes in the above table. Hu *et al.* (2011) concluded that the CE model promotes sustainable production in the leather industry, demonstrating huge potential in cost savings and environmental pollution. Similarly, Selvaraj *et al.* (2019) discovered the potential use of fleshing waste derived nanofibers as a sound absorbing layer in acoustic applications. Also, Gupta *et al.* (2018) revealed that tannery scraps and wastes could be recycled and upcycled into organic manures, useful for plantations while similar studies also explored waste management themes (Gerek *et al.*, 2019; Raghava Rao *et al.*, 2003; Li *et al.*, 2019; Kılıç *et al.*, 2018).

These studies demonstrate the practical uses of tannery generated wastes to derive significant value while ensuring the optimum environmental performance of tanneries. Energy efficiency in wastewater treatment to ensure reduction in COD using a technology-based approach was explored by Gerek *et al.* (2019) while Moktadir *et al.* (2019) explored international pressure and scarcity of natural resources as key the drivers to energy-efficient supply chains.

Green chemistry represents the final major theme identified. Issues in this area are usually related to efficient use of chemicals, use of environmentally friendly chemicals that do not affect the quality of finished leather products and ensuring adequate chemicals uptake during the processing of hides and skins. It could be argued that authors in this area also proposed a medium and technology-based solution to support green chemistry for sustainability. For example, Sathish *et al.* (2016) revealed that an alternative solvent medium (specifically, the application of "supercritical fluids and switchable solvents") has the potentials for the development of waterless leather manufacture.

Similarly, Krishnamoorthy *et al.* (2012)'s study employed "unnatural d-amino acids (d-AA)-aldehyde (Ald)" as a substitute for chrome tanning which resulted in a significant reduction in total solids content (TSC) in effluents and improved the biodegradability of organic compounds present in the effluents, compared to chrome tanning. On the other hand, Sathish *et al.* (2016) suggested a technology-based approach for future research to explore dry tanning approaches that are capable of transporting an adequate amount of chemicals without any discharge to using newer equipment engineering packages. This leads to the second dimension of sustainability – the economic sustainability dimension.

2.5.3 Economic Sustainability in the Leather Industry

This is also referred to as the "profit" dimension of sustainability". Defined by Atkinson (2007), economic sustainability is the achievement of transferring onto future generations an equal measure of capital that is available for present generations. In relation to business, the economic dimension of sustainability considers an organisation's effort to improve the value it generates and delivers while reducing the cost of its supply chain-related activities (Closs *et al.*, 2011). Additionally, Blanchard (2006) suggested that economic sustainability means the "business of staying in business" when social and economic aspects are taken into consideration. Using the above interpretation, concepts such as competitiveness, innovation, manufacturing efficiency, lean systems and profitability, important for modern businesses to stay in business in the short and long term, could be attributed to economic sustainability concepts.

According to Glavič and Lukman (2007), economic sustainability possesses four main principles, as shown in **Figure 2-8.**

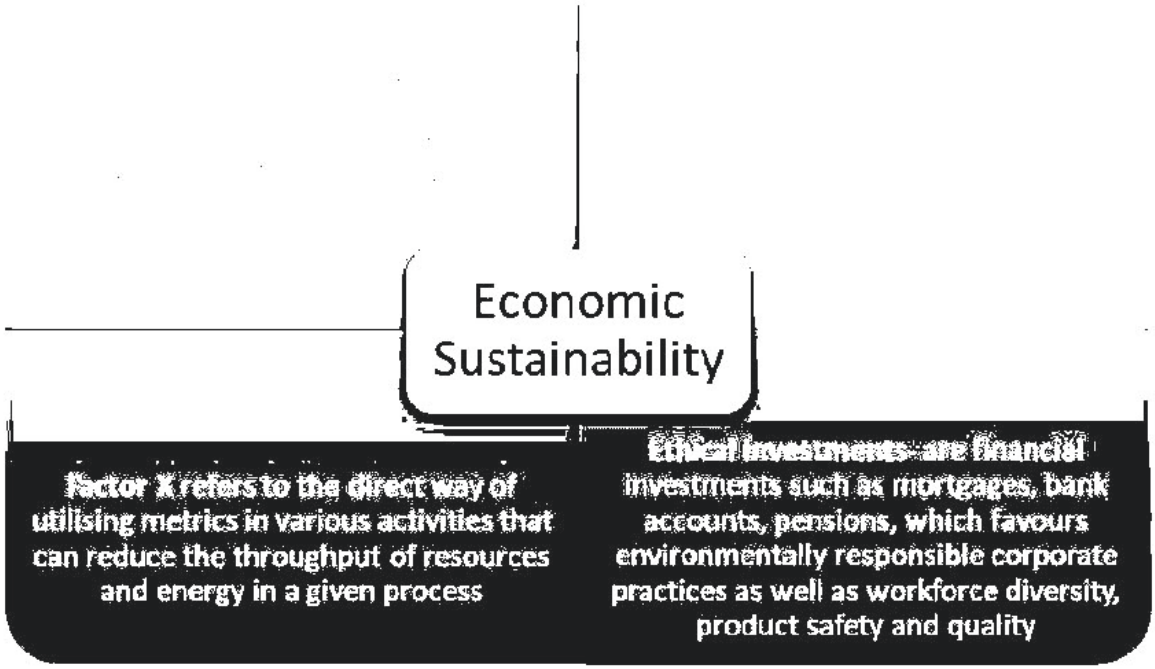


Figure 2-8: Principles of Economic Dimension of Sustainability (Source: Glavic and Lukman, 2007)

Furthermore, related parameters to economic sustainability include profitability, competitiveness, the economic impact on stakeholders, technology choice (Singh and Gupta, 2013); growth rate, innovation (Labuschagne *et al.*, 2005); economic performance, and market presence (Wilson, 2015).

In the leather industry, important aspects of economic sustainability, as stated by ICT (2018), include a commitment to fair trade practices; traceability of raw hides and skins up to the slaughtering facilities; commitment to transparency on the origin of leather production; and commitment to observe and promote the correct labelling of leather and leather products, according to the agreed ICT definitions and international standards and laws.

Furthermore, in becoming economically sustainable, organisations are advised to make a maximum profit while ensuring the most efficient use of all resources and raw materials (Singh and Gupta, 2013). It can be argued that social and environmental sustainability practices usually contribute to the economic sustainability of a company, industry, and supply chain and vice versa because a profitable and economically stable company could have a greater chance of committing to sustainability investments relating to the social and environmental aspects.

2.5.3.1 Themes relating to the Economic Dimension in the Leather Industry

From a macroeconomic and microeconomic perspective, themes such as organisational efficiency, competitiveness, and consumer perceptions and behaviours can be rationalised to be related to economic sustainability, as shown in **Table 2-8.** However, it is important to note that these themes were not discussed in isolation. In fact, all the themes placed in these dimensions were discussed in relation to environmental sustainability and none in relation to social sustainability. This provides another finding and potentially a gap to explore the relationship between social and economic sustainability in the leather industry (not explored in this study).

Table 2-8: Themes relating to Economic Sustainability (Source: Developed by Researcher)

Themes	Author(s)
Competitiveness	Gupta *et al.* (2018); Resta *et al.* (2018)
Customer perceptions and sustainable behaviours	De Klerk *et al.* (2019); Dekhili *et al.* (2019); Jung and Oh (2019)
Innovation for Efficiency	Horvathova *et al.* (2019): Kusum and Yinghua (2018); De Marchi and Di Maria (2019); Liedtke (2012); Hernandez Pardo *et al.* (2012).
Supply chain traceability	Marconi *et al.* (2017); Papetti *et al.* (2019); Jiang *et al.* (2018); Moktadir *et al.* (2019)

Gupta *et al.* (2018) explored how three different states in India have been leveraging on trade-offs in their focus on the triple bottom line to derive a competitive advantage over others. These trade-offs were reported to result from different policies and management practices in place in the three different states to push either of social, economic or environmental agenda. Thus, highlighting the potential practical impacts of policies towards the development of the triple bottom line. Resta *et al.* (2018) reported that business competitiveness (due to reported positive changes in brand value, access to capital, employee retention) of companies surveyed improved due to implemented practices relating to sustainable products and practices.

In relation to customer perceptions and sustainable behaviours, De Klerk *et al.* (2019) suggested that ethical concerns and strong value perceptions of individuals do not usually translate to environmentally significant behaviours and consumer's purchase intent, respectively. Similarly, Dekhili *et al.* (2019) indicated that sustainability information impacts the perceived quality of luxury products, depending on the country in context using a case of France and Saudi Arabia. Citizens of the latter were found to lower quality evaluation when social information is provided, while their French counterparts upheld high quality evaluations.

This information could signify the need for more education to influence consumer behaviours and perception towards sustainable leather goods. This aligns with Jung and Oh (2019) who noted that the positive determinants of sustainable consumption beliefs are rooted in environmental knowledge and perceived economic effectiveness.

Regarding traceability, Papetti *et al.* (2019) and Joseph and Nithya (2009) suggested that the greatest environmental impact of the leather supply chain is derived from tanneries. As such, it is recommended that good logistics systems play a key role, especially upstream (where the supply chain networks can be more fragmented and suppliers dispersed worldwide), in ensuring better traceability of products (Papetti *et al.*, 2019; Jiang *et al.*, 2018). Furthermore, Moktadir *et al.* (2019) suggested that reverse logistics could increase return-on-investment and give a competitive advantage to companies. However, as knowledge and support issues seem to be the most significant issue facing the adoption of reverse logistics practices (Moktadir *et al.*, 2019), the collaboration of tanneries in the supply chain is suggested to hold potential benefits, including reducing the complexity of networks, transport and associated environmental costs (Marconi *et al.*, 2017; Jaegler, 2016).

Another key area explored by Kusum and Yinghua (2018); De Marchi and Di Maria (2019) and Horvathova *et al.* (2019) was how innovation leads to efficiency and improved competitiveness and sustainability of the leather industry. For example, Horvathova *et al.* (2019) demonstrated how the application of industry 4.0 principles to leather cutting could lead to cost savings and increased process efficiency, hence contributing to leather sustainability.

2.5.4 Social Sustainability in the Leather Industry

The social dimension of sustainability is also known as the "people" aspect of sustainability (Elkington, 1997). Some authors (Vallance *et al.*, 2011; Hutchins and Sutherland, 2008) have regarded this as the least explored sustainability dimension in management and practice. Even though it is included in the triple bottom line, it is said to take an unequal role compared to the other two sustainability dimensions (McKenzie, 2004; Rasouli and Kumarasuriyar, 2016). The Global Reporting Initiative (GRI) reported that businesses' social performance is often poorly and irregularly reported, partly due to the difficulty in quantifying its indicators (McKenzie, 2004).

Furthermore, multiple definitions of the social sustainability concept exist in the literature. While some authors have provided theoretical explanations, some have opted to discuss core

themes through which social sustainability can be operationalised (Åhman, 2013). This literature review does not attempt to provide a new definition of the concept but rather assist in understanding previously existing definitions and present common themes about social sustainability in the literature.

Social sustainability is, for Rasouli and Kumarasuriyar (2016, p.31), the state of a community that is capable of meeting the basic needs of humans as well as satisfy the principles of "social justice and equity, homogeneity, cohesion, integration, diversity, sense of place, social amenity, social security" for the future as well as present generations. Similarly, Sarkis, Helms and Hervani (2010, p.338) posited that social sustainability is concerned with the "management of social resources, including people's skills and abilities, institutions, relationships and social values".

Another definition provided by McKenzie (2004) suggests that social sustainability occurs when processes, systems, structures and relationships (formal and informal) dynamically support the ability of present and future generations to form healthy and functional communities". Some common themes like equity, health and safety, quality of life, and diversity naturally take perspective from the above definitions. Building on this, several authors have also identified social sustainability themes (principles). **Table 2-9** presents these themes according to different authors.

Table 2-9: Themes of Social Sustainability (Source: Developed by Researcher)

Author	Publication Title	Identified themes
(Basiago, 1999)	Economic, social, and environmental sustainability in development theory and urban planning practice	Equity, empowerment, accessibility, participation, sharing, cultural identity, institutional stability
(McKenzie, 2004)	Social sustainability: towards some definitions	Quality of life, democracy and governance, interconnectedness, diversity, equity.
(Colantonio, 2009)'	Social sustainability: linking research to policy and practice (unpublished). Paper presented at the Sustainable development: a challenge for European research	Basic needs: physical aspects of society and human life such as health, housing, and food; equity: social disparities
(Cuthill, 2010)	Strengthening the 'social' in sustainable development: Developing a conceptual framework for social sustainability in a rapid urban growth region in Australia	social capital, social infrastructure, social justice and equity and engaged governance
(Åhman, 2013)	Social sustainability - society at the intersection of development and maintenance	Basic needs, equity, education, quality of life, social capital, social cohesion, integration and diversity, sense of place

Deducing from **Table 2-9** above, equity (social equity) is an integral component of social sustainability that necessitates that society members should have equitable access to resources and opportunities. By extension to the business world, social equity includes a just and fair treatment of employees (Åhman, 2013). Complementary to environmental sustainability, which takes a focus on the management of natural resources, social sustainability takes a focus on the management of societal resources such as people skills, relationships and social values (Sarkis *et al.*, 2010).

Hutchins *et al.* (2019) categorised sustainability practices based on the popular Maslow's hierarchy of needs. These needs include physiological needs – the lowest pyramid and basic hierarchy and entails humans' critical daily needs, including food, shelter, and clothing. Furthermore, safety/security needs relate to freedom from external threats. Love needs are necessary to foster meaningful relationships with others, be loved and have a sense of belonging. Esteem needs relate to the need to be recognised, respected by others and self-respected. Self-actualisation relates to reaching one's goals and fulfilling defined potential (Hutchins *et al.*, 2019).

Given the definitions above on human needs, some practices that may fall under this can be health and safety (safety needs), employee participation (love needs), development of human capital (self-actualisation need), rewarding employees for performance (esteem needs). Health and safety encompass safety at the workplace, health and hygiene; employee participation involves the engagement of staff in day-to-day operations and decision making of the business (Osborne and Hammoud, 2017; Truss *et al.*, 2013).

It could also involve the inclusion of employees in committees that carry out defined tasks. The development of human capital is the building of capabilities of employees and community members so that they can reach their full potentials and be more effective at the workplace (Staniškienė and Stankevičiūtė, 2018). This is ensured by education, training, apprenticeships, etc. Companies can also reward employees for outstanding performance through pay increase and/or awards.

Equity relates to addressing social injustice, eliminating inequality and ensuring fairness. Equity is recognising that there are groups and individuals in the society that have insufficient capacity to thrive in a challenging world (at the workplace). It also deals with recognising that vulnerable groups do not disproportionately bear environmental and economic burdens and their voices are heard on important issues (Mani *et al.*, 2016; Eizenberg and Jabareen, 2017). Practices that ensure equity and elimination of inequity include the hiring of local community members as well as people with disabilities; respect of human rights regardless of age, gender, race, religion, and nationality; prohibition of forced, child and bonded labour; ensuring diversity (Mani *et al.*, 2016).

The leather industry is presented as a labour-intensive sector (ILO, 2018), suggesting a need for a strong focus on employees' social aspects. This focus could include no use of forced or child labour, optimum health, and employees' safety along the leather supply chain (Dahlsrud,

2008). Important aspects of social sustainability in the leather industry include "*full compliance to product safety regulation, full compliance to health and safety and employment regulation*", and a "*commitment to animal welfare principles and practices*" (ICT, 2018).

Health and safety appears to take priority in publications relating to the social aspect, with publications by Syed *et al.*(2010), Decouple (2013), and Garai (2014) focusing on the impact tanneries have on the health and safety of workers and the environment. Decouple (2013) found out that people of both genders have an increased risk of developing some form of cancers during their lifetime if necessary protective measures are not implemented. Similarly, discharge of waste from tanneries (if not well treated and managed) can pollute environmental resources like air, water and soil as well as cause health issues such as skin inflammation, liver and lungs problems, among other disorders, in employees and community members (Syed *et al.*, 2010).

These findings suggest a need for all stakeholders in the leather industry to take social sustainability seriously. Intuitively, only healthy work and happy workers can adequately contribute to a company or industry's economic or environmental sustainability over a period of time. The next section addresses the research gaps relating to social sustainability.

2.5.4.1 Themes relating to the Social Dimension in the Leather Industry

A significant finding related to the social dimension is the narrow nature of present literature, which has largely focused on health and safety, while other social sustainability aspects have been underexplored, as shown in **Table 2-10.** Due to the nature of the industry that uses vast amounts of chemicals and potentially generates a significant amount of waste (if left untreated or properly managed), there could be debilitating effects on employees and the community in which tanneries are located. Hence, the rationale for the dominance of health and safety-focused research could be justified. Similarly, Munny *et al.* (2019) suggested health and safety to be "the" enabler of social sustainability in the leather supply chain.

The review suggests a positive contextual correlation and relationship between environmental sustainability practices and the effect on the health and safety of workers (Syed *et al.*, 2010; Decouple, 2013; Garai, 2014). Also, a lack of education on the dangers of working in tanneries without wearing protective equipment is regarded as the most significant health and safety issue in tanneries (Garai, 2014). Thus, relevant education is recommended to address this key issue. Other recommended solutions include developing necessary managerial and technical skills to handle sustainability-related concerns, practical applications of research findings into

the company's day-to-day operations and raising awareness of potential dangers of tannery waste to workers and environmental management education (Syed *et al.*, 2010; Garai, 2014).

Table 2-10: Themes relating to Social Sustainability (Source: Developed by Researcher)

Themes	Author(s)
Health and Safety	Syed *et al.* (2010); Garai (2014); Decouple (2013)
Enablers of Social Sustainability	Munny, *et al.* (2019)

However, while it is important to note that although the majority of these social sustainability-related studies were carried out in emerging/developing economies (such as India, China, Pakistan, Bangladesh), this does not suggest the predominance of poor health and safety practices in these countries. Instead, it presents an opportunity for researchers in this field to explore health and safety issues and practices of tanneries in developed countries for comparison and learning purposes. Additionally, other aspects of social sustainability such as practices relating to diversity and equality, fair treatment and respect of employees, work-life balance, could also be explored in other areas of the leather supply chain such as manufacturing/retailing and chemical companies.

In conclusion, the variety of themes in the articles analysed show a wide spectrum of potential areas that sustainability managers can focus on to implement sound and holistic sustainability practices. Again, the narrow nature of discussed themes in the social sustainability dimension, compared to economic and environmental sustainability, shows the needs for further research in the social sustainability dimension.

2.6 Justification of the Empirical and Research Context of Present Study

From the synthesis of the above literature, there is an indication that there is a continued increase in research that address all three dimensions of sustainability over the last five years. However, several of these studies have been carried out in the context of emerging and developing nations. This is contrary to the notion that sustainability studies have been lagging in these world regions. In fact, the leather industry's impacts, and size are significant in countries like China, India, and Bangladesh. Hence the skewness of sustainability research towards these regions should not emerge as a surprise. This finding justifies Europe as the research context for the present study.

Regarding key themes that have been explored, the study suggests the presence of in-depth research on aspects of environmental sustainability such as green chemistry, efficient energy and water management, and waste/effluent management. Core themes relating to economic sustainability include competitiveness, customer perception & sustainable behaviour, innovation for efficiency and supply chain traceability. However, social sustainability stands out significantly as the most underexplored dimension of the three dimensions, evident from the narrow themes presently explored. Present literature on social sustainability in the leather industry has chiefly been on health and safety practices (i.e., ways in which health and safety of employees, community, consumers are ensured).

Hence, to address the knowledge gap, the current study explores practices relating to other aspects of the social dimension, such as diversity and equal opportunities, animal welfare, respect and protection of human rights, employee development and involvement and no use of forced or child labour in the leather supply chain. This serves as the basis for the 1st research objective - ***explore the key social sustainability practices in the leather industry.***

Based on discussions with experts in the field and conformance to the literature, details on the implementation of other social sustainability practices are lacking. This gap in knowledge is investigated, as indicated earlier. Furthermore, to improve the engagement of supply chain actors towards social sustainability implementation, providing justification through the basis of drivers (discussed later in Page 49) is noted to be important (Saeed and Kersten, 2019; Saeed *et al.*, 2017). Lastly, for companies to monitor and measure the progress on implemented practices, indicators are used and are discussed below.

PART 2

2.7 Overview of Sustainability Indicators

The development of corporate sustainability indicators continues to gain prominence worldwide (Antolín-López *et al.*, 2016). Several enterprises and policymakers have continued to move towards evaluating the triple bottom line performance of companies (Antolín-López *et al.*, 2016; Veleva and Ellenbecker, 2000). Definition wise, indicators have been described as "variables", "measures", "statistical measures", "substitution for measures", and "sub-index" (Gallopín, 2005). Also, indicators are defined as measures or sum of measures that enable conclusions to be drawn on concepts of interest (Joung *et al.*, 2013). According to Meadows (1998), "indicators arise from values (we measure what we care about), and they create values

(we care about what we measure)". Indicators exhibit a unique feature of recapitulating, emphasising and summarising a complex, ever-changing dynamic environment into a concise amount of relevant information (Meadows, 1998).

In relation to this study, sustainability indicators are defined as "the information used to measure and progress towards sustainable goals" (Ranganathan, 1998). They are said to provide vital information about a system, either physically, socially or economically, as well as provide the basis to analyse "trends and cause-and-effect relationships" (Veleva and Ellenbecker, 2000). Moss and Grunkemeyer (2007) defined the necessary characteristics for a sustainability indicator as follows:

1. Measurable: should be measurable, either quantitatively or qualitatively, for data collection and evaluation purposes.
2. Understandable: clearly stated and understood.
3. Relevant: relevant to the industry or for the purpose developed.
4. Display linkages, i.e., should not be narrowly focused on one dimension of sustainability.
5. Usable: usable for a community, policymakers, industry.
6. Cost-effective: the benefit of collecting data on indicator should outweigh the cost.

According to Gould (2017) and Labuschagne (2005), no consensus has been reached to measure sustainability. Additionally, Parris and Kates (2003) suggested three reasons that are responsible for the difficulty in defining an agreeable set of indicators to measure sustainability. Such reasons include:

1. the vagueness of the sustainability concept.
2. the multidimensionality of motives to measure sustainability.
3. misunderstanding in the use of the terminology and methods of measurement.

Furthermore, Guo *et al.* (2015) affirmed the need to employ metrics and indices to quantify the concept of sustainability. Several indicator frameworks exist to support the assessment of sustainability, either at the national, local, international, company or product level (Veleva and Ellenbecker, 2001), which serve functions listed below:

1. It provides companies with the means to measure and access the impacts of sustainability efforts (Joung *et al.*, 2013; Bell and Morse, 2009; Lodhia and Martin, 2014: Veleva and Ellenbecker, 2000: Veleva and Ellenbecker, 2001)
2. To develop performance measurements, key performance indicators are needed (Nappi and Rozenfeld, 2015; Rahdari *et al.*, 2015).

3. It is also imperative towards the operationalising of sustainability (Bell and Morse, 2009)
4. It provides necessary information for decision-makers and managers to enhance stakeholders' organisational learning and engagement (Dahl, 2012).

Popular indicator frameworks include the Wuppertal Sustainability Indicators (Spangenberg and Bonniot, 1998b) and Global Reporting Initiative (GRI, 2000). These frameworks have characteristics that were taken into consideration by Labuschagne *et al.* (2005) which are applicable to this current study:

1. Inclusion of a set of measurable indicators.
2. They take into consideration the three dimensions of sustainability.
3. They have a wide range of focus.
4. They were not developed based on another framework.

There are also product focused indicator frameworks, but these will not be discussed as this is not in the direction of this research. Some of the indicators identified in these indicator frameworks will be highlighted under the headings of social sustainability indicators below. These developed frameworks by various institutions have attempted to provide a holistic approach to defining the indicators for the three dimensions of sustainability. While acknowledging the importance of the holistic approach, this study will review current social sustainability indicators.

2.7.1 Social Sustainability Indicators in the Leather Industry

The measurement of social sustainability using indicators has been plagued with issues, as identified in the literature. Social sustainability has usually come short through its lack of simplicity in its meaning, content (sub-dimensions) and tools of measurement (Staniškienė and Stankevičiūtė, 2018). While the economic and environmental sustainability is easier to measure and express quantitatively (Staniškienė and Stankevičiūtė, 2018; Lehtonen, 2004), the qualitative nature of social sustainability lends itself to difficulty in defining suitable measurement indicators (Staniškienė and Stankevičiūtė, 2018). Similarly, as it is with the concept of sustainability, there has been no consensus on the indicators to measure social sustainability (Lehtonen, 2004; Staniškienė and Stankevičiūtė, 2018). Nevertheless, the literature suggests a rise in the attempt to acknowledge the usefulness of qualitative indicators to measure social sustainability in organisations (Almahmoud and Doloi, 2015).

In defining and developing social sustainability indicators, some authors further identified sub-dimensions of SS to further break down the concept in an understandable manner. Staniškienė and Stankevičiūtė (2018) proposed six sub-dimensions of social sustainability as employee participation, employee cooperation, equal opportunities, employee development, health and safety and external partnership. Also, Antolín-López, Delgado-Ceballos and Montiel (2016) proposed employee programs, occupational health and safety, human rights, philanthropy, volunteerism, local commitment, product responsibility, quality management, consumer relations management, sustainable consumption as sub-dimensions or themes of social sustainability indicators. Various studies and frameworks have also made attempts to define indicators for social sustainability. **Table 2-11** provides a pool of social sustainability indicators that have been identified in the literature.

Table 2-11: List of Social Sustainability Indicator Topics (Source: Developed by Researcher)

Social Sustainability Indicators	
Indicator topics	**Publications**
Occupational Health and Safety	(Veleva and Ellenbecker, 2001; Spangenberg and Bonniot, 1998a; Staniškienė and Stankevičiūtė, 2018; Lim and Biswas, 2018; Joung *et al.*, 2013; Krajnc and Glavič, 2005: Valenti *et al.*, 2018; Dočekalová and Kocmanová, 2016; Keeble *et al.*, 2003)
Social Equity (Community engagement)	(Lim and Biswas, 2018; Dočekalová and Kocmanová, 2016; Antolín-López *et al.*, 2016; Staniškienė and Stankevičiūtė, 2018; Joung *et al.*, 2013; Veleva and Ellenbecker, 2001)
Employee development	(Joung *et al.*, 2013; Kolk *et al.*, 2008; Antolín-López *et al.*, 2016; Dočekalová and Kocmanová, 2016; Staniškienė and Stankevičiūtė, 2018; Keeble *et al.*, 2003)
Equal Opportunity	(Lim and Biswas, 2018; Kolk *et al.*, 2008; Staniškienė and Stankevičiūtė, 2018; Dočekalová and Kocmanová, 2016; Valenti *et al.*, 2018)
Conducive and safe working environment	(Joung *et al.*, 2013; Lim and Biswas, 2018; Dočekalová and Kocmanová, 2016; Veleva and Ellenbecker, 2001; Krajnc and Glavič, 2005)
Respect for human and workers' rights	(Joung *et al.*, 2013; Dočekalová and Kocmanová, 2016; Antolín-López *et al.*, 2016; Keeble *et al.*, 2003)
Consumer health and safety	(Kolk *et al.*, 2008; Dočekalová and Kocmanová, 2016; Keeble *et al.*, 2003)
Community health and safety	(Krajnc and Glavič, 2005; Choi and Sirakaya, 2006)

While it has been established that one of the main methods of evaluating sustainability performance is through the use of indicators (Bell and Morse, 2009; Rahdari *et al.*, 2015), many

studies have attempted to develop an industry-specific set of indicators of sustainability (Lodhia and Martin, 2014; Valenti *et al.*, 2018; Strezov *et al.*, 2013). However, **there is still a lack of knowledge on social sustainability indicators in the leather industry, translating that the above table can be contextualised to the leather industry.**

Specifically, Popovic *et al.* (2018) concluded that there are three types of social sustainability indicators: general indicators that measure social sustainability for the whole SC; SC indicators suitable for different SC echelons; and industry level indicators that are only specific to specific industries.

Hence, as a component of the research objective defined above **(in bold), the study seeks to understand the type of indicators that apply to the leather supply chain.**

Furthermore, different authors have identified flaws in present sustainability frameworks. Such flaws include:

1. Insufficient guidance on how to choose and implement available indicators (Veleva and Ellenbecker, 2000; Guo *et al.*, 2015)
2. Excessive focus on the environmental dimension of sustainability, e.g. 2005 environmental sustainability indicators, (ESI), Environmental Performance Index (EPfI), ISO environment performance evaluation standard (ISO 14031), Environmental Pressure Indicators for European Union (EPrI), European Environmental Agency Core Set of Indicators (Labuschagne *et al.*, 2005; Veleva and Ellenbecker, 2001; Ahi and Searcy, 2015).
3. Indicators for social sustainability are not comprehensively represented in available frameworks. In cases where they are contained within, only workers health and safety are prioritised, while the issues such as job security and wellbeing are poorly represented.
4. Narrow measures that focus on numbers such as labour hours but not sufficient to help address issues relating to practices such as health and safety, diversity and inclusion, development of human capital etc. (Veleva and Ellenbecker, 2000; Staniškienė and Stankevičiūtė, 2018).
5. Some of the indicators identified in these frameworks are difficult to measure, e.g., social sustainability indicators like community involvement and skills transfer (Veleva and Ellenbecker, 2000).

6. Many of the available sustainability indicators have been developed by multilateral organisations, NGOs, academics, investment rating agencies to meet the needs of internal management while there is a limitation in the involvement of key business stakeholders (Joung *et al.*, 2013; Mitchell *et al.*, 1995).
7. Indicator based measurement methods suffer from a focus on outcomes whilst not revealing much information about the causes of these outcomes, noting that this is *"...because drivers of sustainability and interactions among indicators and drivers, are not explicitly addressed"* (Pham *et al.*, 2013).

Given the above issues identified, this study investigates **relevant social sustainability indicators used to assess social sustainability performance in the leather SC.** Integral to achieving this objective, addressing the issues 1-6 listed above is considered. Lodhia and Martin (2014) noted that sustainability indicators on their own might not be capable of communicating precise assessments and thus, require supporting information to improve interpretation and understanding of sustainability assessment results. Such supporting information includes sustainability drivers (Pham and Smith, 2014; Taticchi, 2013) related to the 7th issue above.

Furthermore, Pham and Smith (2013) proposed a model as shown in **Figure 2-9** that associates sustainability drivers with sustainability indicators, but its limitation was that it was mainly based in the agricultural farm households, with the drivers and indicators specific to the agricultural sector in Vietnam. Although the paper delivered the idea that sustainability indicators relate to certain drivers, the agricultural industry's peculiarity in terms of the indicators and drivers identified hinders the ability to generalise the findings from the research to other contexts.

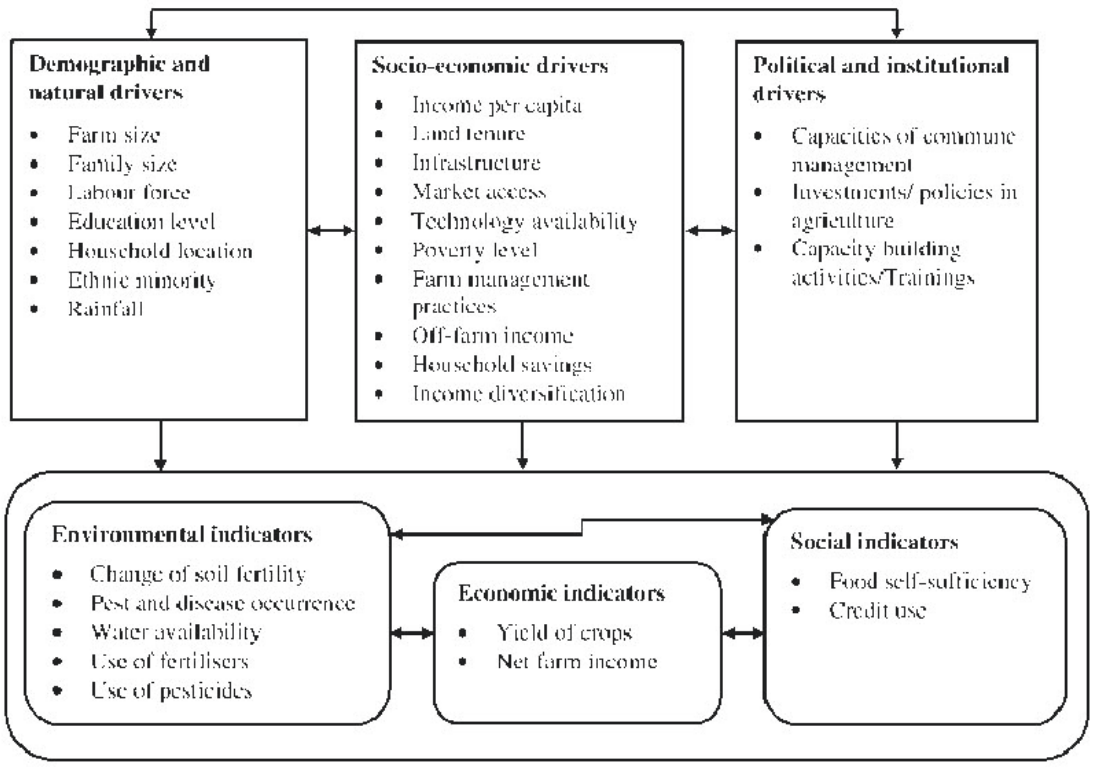


Figure 2-9: Relationship between Sustainability Drivers and Indicators (Source: Pham and Smith, 2013)

This model represents one of the maiden articles that discusses the association between both parameters (drivers and indicators). Hence, this study seeks an understanding and association on a supply chain level, with a focus on the leather industry. Sustainability drivers are defined in the next section.

2.8 Drivers of Sustainability in the Leather Supply Chain

Beske and Seuring (2014) published a paper on *"putting sustainability into supply chain management"*, where they suggested that important factors should be considered for a successful sustainability implementation in a supply-chain context. Five main categories were identified: orientation, continuity, collaboration, risk management and pro-activity. As a starting point, it was noted that orientation provides the foundation and serves as a necessity for SSCM engagement through the integration of goals, practices and reasonings. Additionally, Ageron and Spalanzani (2012) proposed an SSCM conceptual model with seven building blocks based on a comprehensive literature review and analysis. These building blocks, as shown in **Figure 2-10** below, are suggested to be considered when approaching SSCM.

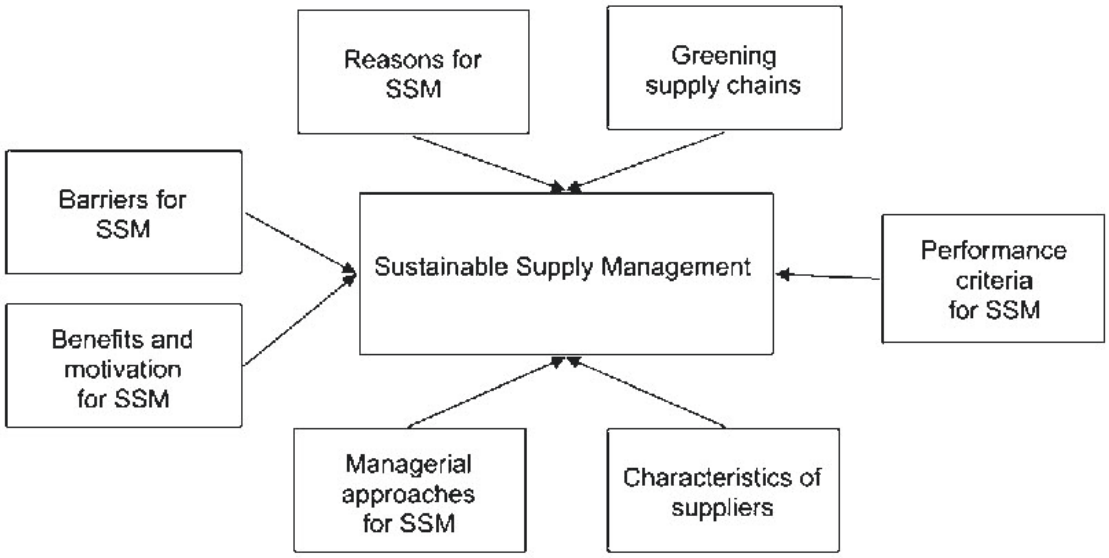


Figure 2-10: Model of Sustainable Supply Chain Management (Source: Ageron and Spalanzani, 2012)

The authors suggested that understanding these seven building blocks is crucial when organisations are tending towards SSCM. Ageron and Spalanzani (2012) noted that reasons and motivations for SSCM is an essential requirement for any sustainability implementation activities. The motivations were synonymously used as drivers by Pinto and Allui (2016) in similar studies. Identifying drivers forms a crucial part of this study as there is a lack of research in this area in the leather industry.

Businesses are beginning to make sustainability a priority in their operations, from the supply chain activities to the development and marketing of their products and services and even after the product's end of life. Despite several related sustainability definitions, the motivators (drivers) for sustainability for businesses are distinct: from government policies to pressures from business stakeholders (Lozano, 2015).

Hazell and Wood (2007) defined a driver as a natural or human-induced influence capable of causing a change in how activities are carried out. Drivers have also been similarly used with "motivators". Several authors have discussed the importance of identifying sustainability drivers at the beginning of the sustainability implementation process. It helps an organisation navigate and provide guiding principles for making business decisions (Beske and Seuring, 2014). Similarly, Ageron and Spalanzini (2012) noted that the knowledge of motivators could give due consideration to concerted efforts to enhance "organisational sustainability" in the long term. Previous studies about the drivers of sustainability in different types of businesses such as retail, agriculture, manufacturing, tourism suggest that sustainability drivers in business

could either be internal or external (Gázquez-Abad *et al.*, 2015; Küçüksayraç, 2015; Claro *et al.*, 2013).

Previous studies relating to sustainability drivers have either been industry-specific (Macchion *et al.*, 2018; Gabzdylova *et al.*, 2009) or generalised to various industries (Lozano, 2015; Pinto and Allui, 2016). For instance, Lozano (2015) identified common drivers of corporate sustainability after interviewing ten organisations from industries like mining, steel manufacturing, chemical manufacturing, HVAC etc. Results (in descending order of frequency) from the study reveals internal drivers are:

1. proactive leadership, a supporting business case, precautionary principle, company culture, moral and ethical obligation towards sustainability, avoiding risks, sustainability-oriented champions, employee demands for sustainability efforts, and economic considerations.

Considering the holistic perspective to identifying the drivers of sustainability, the author proposed another category called "connecting drivers" to the existing category of internal and external drivers of sustainability. According to the author, the purpose of the connecting drivers is to provide a better understanding of internal and external drivers. Connecting drivers include:

2. brand reputation, sustainability reports, access to resources, environmental and/or social crisis, market opportunities and market positioning.

Lastly, external drivers were identified as:

3. customer demands and expectations, regulations and legislation, societal awareness, collaboration with third parties, students' awareness-raising, publicity, the market for non-financial information, competition (Lozano, 2015).

Given the limited number of academic publications that discusses the drivers of sustainability in the leather industry, drivers from other industries will be drawn in. The aim of this is to develop a conceptual framework to set the foundation for this research. **Table 2-12** below shows a comprehensive list of drivers of sustainability in different industries.

Table 2-12: List of Sustainability Drivers from other Industries (Source: Developed by Researcher)

Author	Publication	Industry	Drivers
(Macchion *et al.*, 2018)	Strategic approaches to sustainability in fashion supply chain management	Fashion	Organisation's environmental or social disasters; sustainability being a foundation for brand awareness; knowledge of sustainability, legal requirements; attacks from NGOs, business performance enhancement
(Gabzdylova *et al.*, 2009)	Sustainability in the New Zealand wine industry: drivers, stakeholders and practices	Wine	Environmental values, job satisfaction, product quality, customer demands, potential future regulations, compliance with overseas regulations, market differentiation, cost savings, pressure from employees and community groups
(Ghadge *et al.*, 2017)	Implementing environmental practices within the Greek dairy supply chain Drivers and barriers for SMEs	Food	Organisational performance and cost reduction, investor power and influence, suppliers' requirements, government regulations, consumer behaviour, Increase market share and competitive advantage

From the examples of sustainability drivers in the fashion industry (an industry similar to a large extent to the leather industry), attacks from Non-Governmental Organisations (NGOs) and an organisation's environmental and social disasters could be two of the most relevant drivers related to the leather industry. The leather industry continually faces pressure from NGOs like PETA and Green Peace, which has prompted the leather industry players to continue to make moves towards sustainability in order to defend the face of leather and dispel potential misinformation about the leather industry (Leather Naturally, 2018). Social disaster is also not new to the leather industry. In the United Kingdom, France and the USA in 2008, leather consumers started exhibiting extreme skin reactions after sitting on leather sofas that have been contaminated by an anti-mould packaging material called DMF (Dimethyl Fumarate)

(Redwood and Garwood, 2010). This caused some damage to the leather industry's reputation, and this event is believed to have further raised the awareness of sustainability throughout the supply chain (Redwood and Garwood, 2010).

Publications relating to sustainability drivers in the leather industry are emerging, evidenced by the recency of referenced publications. Moktadir *et al.* (2018) identified drivers influencing sustainability implementation: the knowledge of management about sustainability and circular economy; awareness of customers; commitment and leadership from top management; government legislation and support. Also, Wahga *et al.* (2018) identified drivers such as customer requirements and industry dynamics, regulations, institutional sponsors, peers' effect, sustainability-driven values, competitive gains, symbolic capital.

As the leather industry is beginning to turn its attention to other sustainability aspects (proven in initial sections of the literature review) outside of environmental sustainability, it is imperative to identify the key motivators responsible for social sustainability implementation in the leather industry, aligning with the recommendation made by Foerstl *et al.* (2015) and Saeed and Kersten (2019). Similarly, Moktadir *et al.* (2018), in their future research section, suggested that drivers of sustainability should be empirically investigated. Hence, this study attempts to foster clarity by placing emphasis on categorising drivers into the context of the triple bottom line (the focus of the present study being social sustainability) and examine their relationship to the implementation of related practices and indicators. Some of the drivers that have been identified in the literature are discussed below.

Organisational Culture

Organisational culture is defined as the "common value of enterprise members and the integrated evaluation of a situation, work of art, object, and human, which represent the objectives, goals, and standards of the enterprise" (Wu and Lin, 2013, p.3). According to Mitchell and Yates (2002), organisation culture echoes shared culture and beliefs and a shared understanding within stakeholders of an organisation. Results of a "drivers of sustainability-related study" by Rauter, Jonker, and Baumgartner (2017) and Moktadir *et al.* (2018) indicated that employees, employee collaboration and leadership, are key to a truly "sustainability-oriented organisational culture". In terms of leadership, and in addition to the need for support from top management (Lozano, 2015; Rauter *et al.*, 2017; Abdul Moktadir, Rahman, Rahman, *et al.*, 2018), effective internal sustainability champions are suggested to hold importance to drive sustainability across the company (Lozano, 2015). Personal engagement or self-

responsibility of employees in terms of how committed they are to continuous improvement and an inclination towards open innovation is said to play a significant role in sustainability implementation in an organisation (Rauter *et al.*, 2017). Low labour turnover is also deemed a positive result of an organisational culture that is sustainability-oriented (Rauter *et al.*, 2017). As a result, employees' personal and shared values, employee collaboration, personal engagement, effective internal and sustainability champions, labour attraction and retention are regarded as elements of organisational culture.

Ethics

Companies can be driven to undertake sustainability-related activities solely because it is the right thing to do. van Marrewijk (2003) noted that some organisations are driven to incorporate sustainability practices into their operations because it is the right thing to do. Studies by Lozano (2015) reveals the essence of doing business in the "right way", quoting one of the respondents in the Lozano (2015, p.40) study who said, *"if you damage the environment and anger the natives, then you're going to damage your reputation"*. The topic of ethics is a renowned element of social discussions in business (Smith, 2011; Mani *et al.*, 2016)

Shareholder Activism

According to Harvey and Pearson, (2018), shareholder activism refers to the attempt by one or more shareholders of an organisation to affect the organisation's decisions, using their right as owners to this effect. In recent years, shareholder activism towards sustainability-related issues has increased (Grewal *et al.*, 2016). Example of shareholders who take the role of activists includes non-governmental organisations (NGOs), religious groups, unions etc. Shareholder activism could hence impede or hasten the drive towards sustainability. In the leather industry, activist groups such as Greenpeace and People for the Ethical Treatment of Animals (PETA) have attempted to question the credibility of the leather industry over the years. On the other hand, Leather Naturally is an initiative created to support the leather industry and encourage players to conduct their business sustainably (Leather Naturally, 2018)

Trust

Trust in this context means brand trust. According to Ha and Perks (2005), brand trust explains a customer's impetus to depend on a brand to deliver on its laid out functions. Closely related to brand trust is brand reputation. Brand reputation is the sum of perception an organisation has to customers and the community in general in relation to the prominent characteristics the organisation possesses (Fombrun and Rindova, 2000). Similarly, reputation is regarded as one

of the main contributors to the quality perceived of the products belonging to the brand name (Moutinho and Veloutsou, 2009).

Conversely, based on the perceived quality of products, customers tend to, through word-of-mouth, pass on information about brands to the community around them (Pawle and Cooper, 2006). This type of conversations occurs in day-to-day life. In some studies, the quality of products and services has been found to have an impact on brand reputation and resultantly, brand trust. In fact, a brand can gain the trust of customers if it continues to deliver quality consistently (Moutinho and Veloutsou, 2009).

In addition, studies by Veloutsou and Moutinho (2009) and Han, Nguyen and Lee (2015) posits that a positive brand reputation leads to an increase in brand trust from consumers. Customer satisfaction is also an element of brand trust (Ha and Perks, 2005), quoting (Delgado-Ballester and Luis Munuera-Alemán, 2001). Resultantly, the level of satisfaction gained from using a product contributes to the development of trust in the brand (Selnes, 1993; Afzal *et al.*, 2010). Lastly, authors of different studies have found a correlation between risk and brand trust. According to Afzal *et al.* (2010) and Doney and Cannon (1997), an organization uses the trust customers have in their brand to reduce the risk of customer buying decisions made.

Market Expectations

It is not news that customers are demanding sustainability products and also demand that the brands they relate with carry out their business sustainably. In fact, a recent study by Unilever on 20,000 adults from 5 countries reveals that 33% of customers would actively purchase from brands that perceive to impact positively both socially and environmentally (Unilever, 2017). In the same study, it was estimated that there is an £862 billion opportunity for brands who openly display their sustainability credentials. As a result of this opportunity, the author opines that companies could gear efforts towards sustainability in order to gain access to new markets, both present and future. The evaluation of these expectations over time (as typical of the Rain Forest Alliance) could serve as factors that could be considered.

Innovation

OECD/Eurostat (2005) provides a comprehensive definition of innovation as "the implementation of a new or significantly improved product (good or service), or process, a new marketing method, or a new organisational method in business practices, workplace organization or external relations". From this definition, it is evident that innovation exceeds the boundary of technology as it also includes new or modified methods and processes. In the

leather industry. the utilisation of innovation to drive sustainability is being presently witnessed. A good example is the new polymer bead technology introduced by Xeros technologies designed to reduce the discharge effluents and considerably reduce water usage (Xeros Tanning Technologies, 2018).

Government Legislation

The role of the government in ensuring organisations act sustainably cannot be overstated. (Abdul Moktadir, Rahman, Rahman, *et al.*, 2018) stated the roles government could play in driving companies towards sustainability. Some of these roles include the provision of funding, in the form of incentives, to assist the implementation of sustainable practices and the imposition of laws relating to the upcycling, recycling and re-use of production and packaging materials. Government can also legislate for the leather industry to obtain certifications like ISO 14001, which demonstrate their efforts towards sustainability.

Export Improvement

For tanneries in developing countries, improving their reputation in terms of how sustainable they are in their operations is one of the drivers of sustainability (Wahga *et al.*, 2018). The issue of traceability of hides is becoming more important in the leather supply chain (Marconi *et al.*, 2017). Similarly, traceability is of paramount importance to the exportation of goods (Naik and Suresh, 2018). Leather manufacturers and tanneries in developed countries seeking to import hides and skin from developing countries usually require suppliers to act sustainably while carrying out their operations (MVO Nederland, 2013).

According to Foerstl *et al.* (2015), growing pressure for organisations towards sustainable business practices has necessitated the need to focus on identifying the drivers of sustainability throughout a supply chain. However, to the best of the knowledge of the researcher, such a supply chain-wide identification of sustainability drivers has not been carried out, presenting a gap in knowledge that is explored in this study.

In summary, the drivers for sustainability are stakeholder-centric; that is, they are positioned to enable companies to respond to stakeholder needs and create stakeholder value. In the initial portions of the review, it was noted that drivers assist in explaining the importance of sustainability practices and can provide necessary information to explain sustainability performance. Hence, it can be inferred that sustainability drivers, practices, and indicators are inter-related; however, how these three concepts inter-relate are not immediately apparent. This

inter-relationship is investigated in this study. To explore this aim, the researcher grounds the study on relevant theories, discussed below.

2.9 Theoretical Perspective for the Study

Theory-based studies are useful for the extension of the application of relevant theories in a given field and are useful in advancing the body of knowledge (Paul and Criado, 2020). Several theories in the literature have been used in sustainability studies. These include complexity theory, social contingency theory, ecological modernisation, information theory, institutional theory, resource-based view, resource dependency theory, social network theory, stakeholder theory and transaction cost economics theory. These theories are called organisational theories, and the breakdown of these theories can be seen in Sarkis *et al.* (2011). The application of organisational theories to environmental management studies is still in its infancy (Dubey *et al.*, 2015). By extension, the application of theories to social sustainability studies is even equally scant. Several of these theories were considered for the study.

For example, transaction cost economics focuses on the effort and cost required by two firms (usually a buyer and seller) to complete a transaction related activity. However, this study does not seek to explore the nature of transactions across the supply chain, resulting in the inappropriateness of transaction cost theory for this study. The resource-based view theory of competitive advantage indicates that a company can sustain a competitive advantage by equipping themselves with resources that are considered rare, valuable, difficult to imitate and substitute. This theory does not wholly assist in explaining the drivers that influence sustainability implementation (Sarkis *et al.*, 2011). Hence, it is not applied to the study. Furthermore, complexity theory proposes that as business complexity increases, it becomes increasingly difficult for firms to plan and execute organisational actions (Najjar and Yasin, 2021). The aim of the present study does not focus on exploring how leather organisations address complexity of social sustainability implementation.

Also, social contingency theory, usually applied to organisational change studies to suggest that the best way of organisational management is dependent internal and external factors that influence the environment in which a business operates (Ganescu, 2012). Although the present study explores the internal and external factors (drivers) that influence leather organisations towards social sustainability implementation, it does not assess these factors in relation to organisational management outcomes. Hence, social contingency theory is not suitable for the present study.

Other theories assessed include the social network theory which considers that the social relationships that exist between organisations and/or individuals in an organisation is the key driver of organisations' performance. Also, Information theory indicates that there is an asymmetrical balance of information about the environment between an industry and its customers, which then necessitates "signalling" to address this asymmetry. Resource dependent theory suggests that member firms in a supply chain should increasingly collaborate and depend on each other to drive higher business performance in the long run, rather than short term benefits (Sarkis *et al.*, 2011). The theories discussed in the present paragraph have been used in sustainable supply chains studies (Defee *et al.*, 2010; Sarkis *et al.*, 2011; Touboulic and Walker, 2015), but none of them have the complete characteristics of explaining the type of sustainability drivers/pressures that influence companies to implement specific sustainability practices.

On the other hand, Stakeholder theory proposes that companies' actions affect its stakeholders, who can be both internal and external. Hence, because of the potential impact of companies' actions on stakeholders, they often put pressure on companies to increase positive impacts and reduce negative ones (Hörisch *et al.*, 2014). Gao *et al.* (2017) studied the applicability of several theories to sustainability studies revealed that the stakeholder theory is one of the key theories applied to the social dimension of sustainability- which is the focus of this study (Hörisch *et al.*, 2014). Specifically, the involvement of stakeholders (encapsulated in the stakeholder theory) is deemed to be important for any successful sustainability endeavour (relating to strategy, implementation, measurement) (Lozano *et al.*, 2015; Gao *et al.*, 2017; Pagell and Shevchenko, 2014; Rajeev *et al.*, 2017; Li *et al.*, 2014; Kannan, 2018; Reefke and Sundaram, 2017; Lim and Biswas, 2018; Lodhia and Martin, 2014; Antolín-López *et al.*, 2016; Joung *et al.*, 2013; Gualandris and Kalchschmidt, 2014; Meixell and Luoma, 2015). Stakeholder theory is applicable to this study due to its relevance in explaining the roles of stakeholders and their pressures on sustainability-related activities (Sarkis *et al.*, 2011).

Furthermore, Institutional theory investigates how stakeholder pressures influence organisational actions (Glover *et al.*, 2014). Institutional theory has been applied to studies that focus on environmental sustainability in the supply chain. Studies that have applied institutional theory in social sustainability studies are scant. However, due to the applicability of institutional theory to explain the nature of sustainability drivers and their relationship to sustainability practices, this study leverages the component of this theory (discussed below) to explore the research aim and objectives.

In 2010, the use of institutional and stakeholder theory represented rare components (1%) of Supply Chain management literature, according to Defee *et al.* (2010). However, since then, more studies have applied each of these theories in Sustainable Supply Chain Management studies (Mani and Gunasekaran, 2018a; Wu *et al.*, 2012; Herold, 2018; Lin and Sheu, 2012; Hörisch *et al.*, 2014; Mohammad Ebrahimi and Koh, 2021). In fact, Stakeholder theory and Institutional theories is reported to represent two of the three most applied theories in SSCM research (Touboulic and Walker, 2015). The challenge and gap highlighted in the literature has been that several authors have presented their conclusions with little to no attempt to "explore concepts, relationships and make further predictions for theory building purposes" (Touboulic and Walker, 2015). Hence, the application of both theories to the present socially sustainable leather supply chain study towards achieving the research aim potentially represents a significant addition to knowledge and literature.

2.9.1 Institutional Theory and relationship to Sustainability Drivers, Practices and Indicators

Institutional theory has been applied in different fields such as operations management and supply chain management and suggests that external and internal pressures influence organisations to execute strategic actions. Increasingly, institutional theory has been applied to sustainable supply chain studies to explore the pressures that lead organisations to implement sustainability strategies within their companies and supply chain (Ghadge *et al.*, 2017; Glover *et al.*, 2014; Mani and Gunasekaran, 2018a; Herold, 2018). The institutional theory comprises three forms of motivations, namely coercive, normative and mimetic, as shown in **Figure 2-11**. Coercive pressures are noted to be the most dominant type of pressure influencing companies. These pressures are usually from buyers (supply chain partners), regulatory bodies, including government and relevant agencies, and they mandate companies to companies to implement sustainability strategies into their operations, otherwise potentially face penalties/sanctions (Saeed *et al.*, 2017; Saeed and Kersten, 2019; Dubey *et al.*, 2015).

On the other hand, normative drivers emerge due to organisations' social obligations and influence the implementation of sustainability strategies to be perceived as legitimate businesses. These pressures emanate from NGOs, trade unions and society (Saeed and Kersten, 2019). Lastly, mimetic drivers encourage organisations to adopt sustainability practices due to competitors doing the same to mimic their path to success (Sarkis *et al.*, 2011). While coercive, mimetic and normative drivers are external to an organisation, institutional drivers can also be

internal in different forms such as corporate strategy, organisational characteristics, organisational culture, organisational resources (Saeed *et al.*, 2017).

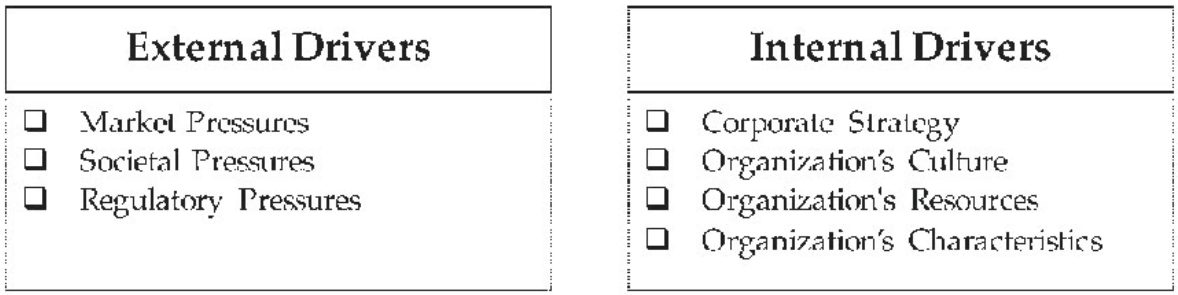


Figure 2-11: Drivers of Sustainable Supply Chain Management (Source: (Saeed and Kersten, 2019))

The drive to implement social sustainability actions can also originate internally within the firm due to corporate strategies that can lead to competitive advantage, economic viability and sustainability orientation. To acquire sound organisational resources, companies can also engage in sustainability practices with the intention to lure the best talents and employees. Enhancing organisational resources such as human capital, employee involvement, and physical capital are potential factors that can influence a firm's sustainability actions.

Furthermore, organisational culture encompasses a company's rate of innovativeness, its inclination towards social responsibility, degree of information dissemination and inclination towards health and safety, which could influence implemented sustainability practices by firms (Saeed *et al.*, 2017). Furthermore, organisational characteristics such as a company's supply chain position, industry, and size in the supply chain and family business feature can influence social sustainability implementation.

Institutional theory is emphasised to be used as a theory that assists in explaining how sustainability supply chain management drivers affect sustainable actions (Saeed and Kersten, 2019; Sarkis *et al.*, 2011; Glover *et al.*, 2014; Wu *et al.*, 2012). Previous studies have notably applied the components of the institutional theory to study how a firm reacts to environmental sustainability issues due to internal and external pressures. Dubey *et al.* (2015) explored the relationship between leadership, operational practices, institutional pressures and environmental performance. Ahmed *et al.* (2019) examined the impact of institutional forces and GSCM practices on organisational performance. Also, Zhu and Sarkis (2007) also investigated the moderating effects of institutional pressures on GSCM practices and performance.

Glover *et al.* (Glover *et al.*, 2014) applied institutional theory to examine the role of the implication of stakeholders in suppliers' sustainability practices. Wu *et al.* (2012) examined the effects of environmental drivers and institutional pressures on environmental practices in a textile and apparel industry context. Lin and Sheu (2012) investigated the reasons behind a firm's implementation of environmental practices from an institutional theory perspective. These studies demonstrate the applicability of institutional theory to explain the "why" of implementation of sustainability practices and by extension, indicators. However, while studies that have applied institutional theory to environmental sustainability studies exist, there are few or no studies on how internal and external institutional pressures drive social sustainability practices.

2.9.2 Overview of the Stakeholder Theory

Stakeholder theory represents the key theory that underpins this research as it has been widely applied to explain the concepts explored in this study. Such concepts include sustainable supply chains, sustainability drivers, sustainability practices and sustainability indicators. The theory, which was first introduced in 1963 by the Stanford Research Institute, was set out to promulgate the notion that management of an organisation should only be sensitive towards the needs of shareholders- which is chiefly to increase in wealth and profit maximisation (Lozano *et al.*, 2015).

Developed by Freeman (1984), the stakeholder theory was proposed to outline an alternate process of strategic management that responds to increasing business competitiveness, rising competitiveness and globalisation (Mainardes *et al.*, 2011). Research by Freeman (1984), therefore, contended that the previous notion of the Stanford Research Institute by stating that businesses should take into cognisance the interests and needs of not just shareholders but also stakeholders. Additionally, according to Mainardes *et al.* (2011), stakeholder theory is grounded primarily in economics, politics, sociology and ethics, offering support for this research which focuses on social sustainability.

By stakeholders, what is meant is the collection of single individuals and groups that are impacted either positively or negatively by business actions, policies and operations of an organisation, and these include the shareholders, investors, creditors, employees, customers, shareholders, governments, banks, environmentalists and the outside community (Castelo *et al.*, 2007; R. Edward Freeman *et al.*, 2004). According to Clarkson (1995), stakeholders are either primary or secondary.

Primary stakeholders are those whose participation and contributions are important for the smooth operation of the business or those who have struck formal agreements and relationships with the organisation (Clarkson, 1995; Castka and Prajogo, 2013). These include suppliers, customers, employees, investors, shareholders. On the other hand, secondary stakeholders are those who do not have formal or contractual agreements with the business and are not indispensable for the being of the business (Castelo *et al.*, 2007; Mainardes *et al.*, 2011). The stakeholder theory has been regarded and accepted as a set of theories rather than one mere theory (Donaldson and Preston, 1995). Consequently, these set of theories have three main approaches (Sarkis *et al.*, 2011; Friedman and Miles, 2006):

1. Descriptive approach: describes how the business carries out its operation in relation to the management of stakeholders. The descriptive approach can also be used to elucidate different corporate characteristics and/or activities.
2. Instrumental approach: shows the correlation or lack of correlation between the attainment of business objectives and stakeholder management.
3. Normative approach: demonstrates how a business should operate with moral guidelines and principles.

According to Freeman (1984) and Freeman *et al.* (2010), the normative approach integrates the instrumental and descriptive version of the theory. The normative approach consists of different cores, ranging from feminist theory to socioeconomic balance justification (Hörisch *et al.*, 2014). The socio-economic balance justification is appropriate for this study as a company may not be able to do social good if not economically viable (Castelo *et al.*, 2007).

Aspects of the stakeholder theory focus chiefly on social stakeholders such as employees, customers (Castelo et al., 2007; Lozano et al., 2015) that should be considered in businesses. In addition to its focus on companies meeting the needs of various stakeholders, the stakeholder theory also emphasises that corporations should be financially successful (Lozano *et al.*, 2015). Furthermore, it is established that the stakeholder theory contributes to the concept of sustainability by addressing the social and non-social aspect of sustainability (the environment, future generations) and the survival and thriving of the company (Lozano *et al.*, 2015).

In order to further justify the use of stakeholder theory in this study, a theoretical basis for the relationship between stakeholder theory and the elements of this study is explored.

2.9.2.1 Stakeholder Theory and its relation to Supply Chain Management

From the supply chain diagram above, actors in the supply chain comprise the upstream supplier (supplier's supplier, who could be a slaughterhouse that provides the raw materials to tanneries), the suppliers (producers), the focal company which could be in the upstream or downstream supply chain), the customer and customer's customer (Scott *et al.*, 2011). A simple but extended supply chain is shown in **Figure 2-12** below.

Figure 2-12: Extended Supply Chain of a Generic Industry (Source: Scott et al. (2011))

In the context of supply chain studies, customers usually refer to "distributors", "wholesalers" or "retailers" and the customers' customer is referred to as end-users (consumers) (Svensson *et al.*, 2016). Relating the above to the stakeholder theory, Svensson *et al.* (2016) went further to categorise supply chain actors into five different groups:

1. Upstream actors are higher up in the supply chain, e.g., raw material producers, suppliers. In this case, hides and skin packers and tanneries.
2. The focal company usually control the activities in the supply chain, e.g., manufacturers.
3. Downstream actors operate closer to the end consumers, e.g., wholesalers, retailers, distributors or intermediaries.
4. Market actors, e.g., customers' customer (end users), marketplace.
5. Societal actors, e.g., government, community, activist groups, certification organisations/associations usually have direct and indirect impacts on business activities through policies and advocacies.

This study focuses on the first three supply chain categories of actors identified above to fulfil the research objectives. Again, the aim of the research is contextualised around the leather-related companies in the European leather supply chain. A sustainable leather supply chain means that actors at different supply chain stages indicated above act sustainably, i.e., be environmentally conscious, economically viable and socially responsible in their operations (Rajeev *et al.*, 2017; Kashmanian, 2015). Saeed and Kersten (2019) stated that a sustainable supply chain could only be achieved if supply chain actors participate in supply chain activities

to achieve stated sustainability goals while satisfying stakeholder requirements. The diagram **Figure 2-13** below represents the interpretation of actors along the leather supply chain.

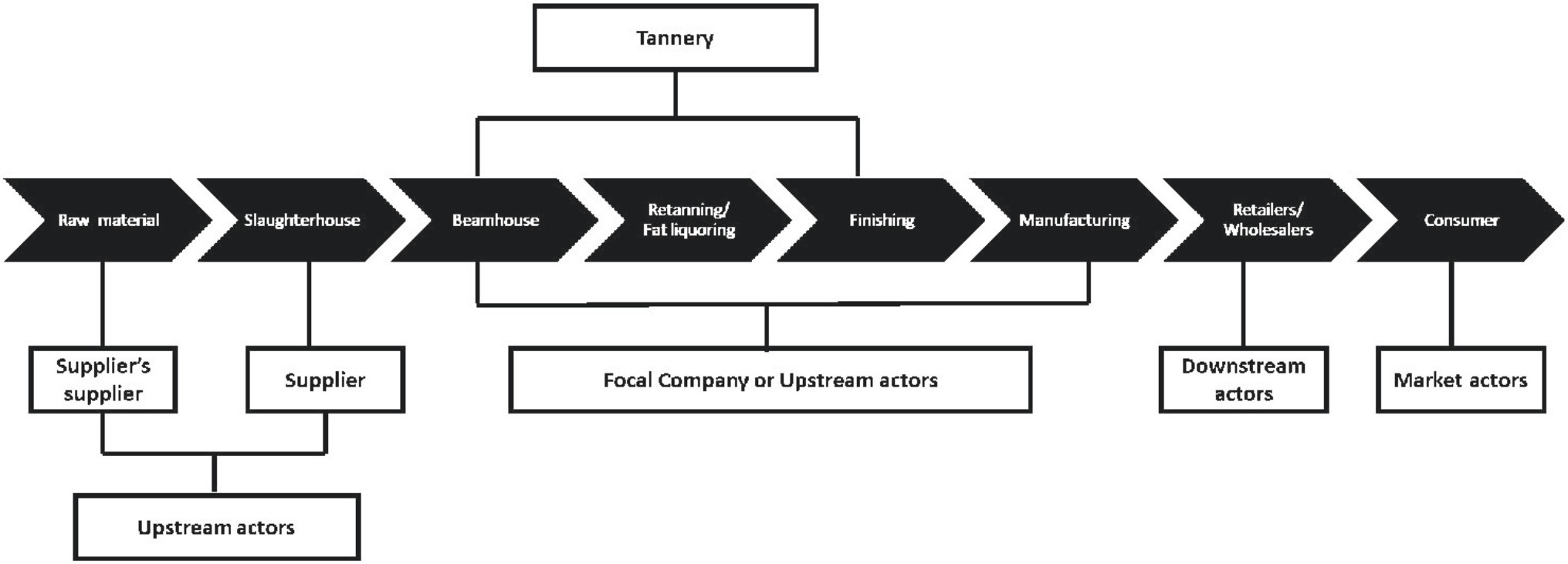


Figure 2-13:Extended Leather Supply Chain (Source: Developed by Researcher)

Evidence of the importance of stakeholder involvement in a sustainable supply chain has been identified in several studies, as shown in **Table 2-13** below. While several of these studies have established the importance of all supply chain actors to collaborate and contribute to a sustainable supply chain, there is a lack of research that have investigated the roles of leather supply chain actors in contributing to social sustainability (the empirical context of this research). In fact, studies that have investigated the specific roles of supply chain actors in any supply chain is rare. Seuring and Muller (2008) suggested that it is important that supply chain actors understand their role(s) towards a sustainable supply chain. Hence, ***this study aims to fill the gap in knowledge by identifying the roles of leather supply chain actors in achieving a socially sustainable leather supply chain.***

Furthermore, the application of stakeholder theory, drivers and practices is discussed in the next section.

2.9.2.2 Stakeholder Theory and its relation to Sustainability Drivers and Practices

The stakeholder theory presents the stakeholders a business should be responsible to in its operations. Dyllick and Hockerts (2002) correlated the concept of corporate sustainability to that of stakeholder theory by defining corporate sustainability as "meeting the needs of a firm's direct and indirect stakeholders (such as shareholders, employees, clients, pressure groups, communities etc.), without compromising its ability to meet the needs of future stakeholders". This definition of corporate sustainability translates to the concept of stakeholder theory. Freeman, Wicks and Parmar, (2004); Hörisch, Freeman and Schaltegger (2014) suggested that stakeholder theory has been widely used in corporate sustainability context as a result of the influence of stakeholders on the decision making of managers.

Similarly, it is suggested that the adoption of sustainability by companies is influenced by stakeholders such as governments' pressure and incentives, customers, competitors and other external business stakeholders (Foerstl *et al.*, 2015; Seuring and Muller, 2008; Sharfman *et al.*, 2009). These influences are otherwise known as drivers (Saeed *et al.*, 2017). Additionally, Epstein and Roy (2001) noted that an organisation or business stakeholders respond to the sustainability performances and actions taken by an organisation to improve the performance. This reflects the importance for companies to "…identify the key stakeholder groups that are the primary drivers of their strategy" (Epstein and Roy, 2001, p.596). A number of authors have applied the stakeholder theory to sustainable supply chain studies, as shown in **Table 2-13**.

Table 2-13: Application of Stakeholder Theory to Sustainable Supply Chain Management (Source: Developed by Researcher)

Nature of research	Stakeholder theory + Sustainability + Supply chain	Key sentence(s)	Industry
Empirical Research	(Wolf, 2014, p.317)	"Findings suggest that stakeholder pressure and SSCM both contribute to an organization's sustainability performance"; "This is one of a growing number of examples of stakeholders exerting pressure on organizations— not only to ensure sustainability within their own premises but also across supply chains".	
Empirical Research	(Foerstl *et al.*, 2015, p.67)	"Suppliers need to understand the sustainability priorities of customers and stakeholders to derive the effective focus and depth of further upstream integration with sub-suppliers".	Multiple
Conceptual Research	(Li *et al.*, 2014, p.824)	"As a virtual organization, a sustainable supply chain can be formed by crucial stakeholders, i.e., suppliers, manufacturers, the focal fast fashion company, governments, customers, and non-governmental organizations (NGOs)".	Fashion Industry
Empirical Research	(Kannan, 2018, p.391)	"Achieving a successful sustainable supply chain management (SSCM) strategy requires a firm to consider its stakeholders' views."	
Conceptual Research	(Gao *et al.*, 2017, p.1529)	"Stakeholder theory is very popularly applied in supply chain and sustainability research."	

Nature of research	Stakeholder theory + Sustainability + Supply chain	Key sentence(s)	Industry
Empirical Research	(Reefke and Sundaram, 2017, p.197)	"SSCM requires the coordination of internal sustainability requirements with those of external SC stakeholders. Knowledge and targeted use of applicable tools and methods are required since sustainability principles are often not coordinated SC wide."	
Conceptual Research	(Rajeev *et al.*, 2017, p.312)	"There is a need for growth in SSCM based studies because they demand the involvement of more stakeholders to take into account all three dimensions of sustainability while they adopt business decisions along the supply chain"	
Conceptual Research	(Meixell and Luoma, 2015, p.83)	"stakeholder pressure may influence SSCM at three points in the sustainability progression: in the creation of awareness in the firm, in the adoption of sustainability goals, and in the implementation of a sustainable supply practice."	

As seen above, the involvement of stakeholders as the source of influence on sustainability drivers behind the implementation of sustainability practices have been established in the literature. This stakeholder involvement is further encapsulated in the institutional theory, which states that pressures (drivers) for sustainability practices can either coercive, normative or mimetic. Coercive drivers encapsulate stakeholders such as governments. regulating bodies, trade associations. Normative drivers encapsulate NGOs, Media, societal groups and consumer organisations, while mimetic pressures involve competitors, suppliers and customers (Saeed and Kersten, 2019).

Similarly, normative stakeholder theory is presented to be related to social sustainability, stating that expectations of the society deserve the attention of the organisation on moral and ethical grounds (Donaldson and Preston, 1995). Furthermore, the instrumental stakeholder theory can be particularly relevant to explore cause and effect relationships, i.e. it can explain that if management desires to achieve an outcome(s), certain practice(s) should be adopted (Mani *et al.*, 2020).

These interlinks between stakeholder theory and institutional theory demonstrate their applicability to this study.

2.9.2.3 Stakeholder Theory and its relevance to Sustainability Indicators

In order to attain corporate sustainability, Pagell and Shevchenko (2014) pointed out a need for the generation of knowledge needed to support supply chain management practice towards sustainability: highlighting the importance of stakeholder focus. Subsequently, Dahl (2012) and Tatiechi (2013) further highlighted the need for a measurement tool that depicts how a company is moving towards sustainability. Additionally, Lim and Biswas (2018) and Dahl (2012) noted that the participation of stakeholders is imperative for creating the indicators to measure sustainability. Several authors have suggested the importance of the participation of stakeholders in developing sustainability indicators. Lodhia and Martin (2014) and Antolín-López *et al.* (2016) noted there is a need for an accord on the use of sustainability indicators among companies and stakeholders in an industry for the indicators to be effective. Dahl (2012) also agreed with the above paper, saying: "indicators must be adapted to their target audience, and preferably selected in consultation with their target users". Evidence from the literature is shown in **Table 2-14** below.

Table 2-14: Application of Stakeholder Theory to the Development of Corporate Sustainability Indicators (Source: Developed by Researcher)

Authors	Key sentence (s) (Quotes from the Publications)	Industry
(Mathur *et al.*, 2008, p.604)	*"Engagement with wider stakeholders is also seen by Kaatz et al. (2005), who evaluate the role of stakeholder participation in building sustainability assessment and have made a case for broadening this participation, to provide legitimacy to any compromises that may need to be made as a result of involvement of multiple stakeholders, through increasing the transparency regarding equity considerations."*	
(Lim and Biswas, 2018, p.540)	*"Stakeholder engagement has been found to be an ideal means for developing sustainability indicators for social learning, management and ethical perspective."*	Palm Oil
(Lodhia and Martin, 2014, p.107)	*"It is also suggested that for corporate sustainability indicators to be effectively utilized, there is a need for consensus among organizations and their stakeholders in relation to the use of these indicators."*	Mining
(Antolín-López *et al.*, 2016, p.14)	*"Stakeholders in the CSPM field would benefit if they reach an agreement regarding what each of dimensions entails, especially economic and social, to minimize ambiguity and confusion among the instrument users."*	
(Perrini and Tencati, 2006, p.304)	*"KPIs are also used in the overall reporting system and in order to define them the company should carry on stakeholder engagement activities"; "Therefore, in line with the adopted stakeholder view of the firm and the sustainability concept, KPIs should be organized according to a framework based on stakeholder categories."*	

Furthermore, Lundin (2003), Mori and Christodoulou (2012) and Singh *et al.* (2009) highlighted two ways in which sustainability indicators can be developed:

1. Top-down approach: where subject matter specialists and researchers can define the indicator framework and agree on the set of the sustainability indicators. Example of such frameworks includes the Global Reporting Initiative (GRI) sustainability indicator framework, Sustainability Accounting Standards Board (SASB), etc.
2. Bottom-up approach: this involves the participation of different actors in designing the indicator frameworks and selecting the sustainability indicators. This suggests a participatory approach to SI developments. An example of this can be seen in Lim and Biswas (2018).

The top-down approach has previously been criticised by different authors because the approach does not give a chance for the end-users (supply chain actors) to have a say in the development of appropriate indicators for their use (Joung *et al.*, 2013; Mitchell *et al.*, 1995), indicating that the involvement of stakeholders in the development of sustainability indicators is beneficial for a useful and suitable development of indicators that will be relevant to all users of the supply chain.

In summary, the efficacy of the relationship between stakeholder involvement and the corresponding theories to explain key themes of this study, namely sustainability practices, sustainable supply chains, indicator development and drivers, is justified in the discussions above: confirming the suitability of the stakeholder theory and institutional theory to the concepts explored in this study. This relationship is depicted in the form of an initial conceptual framework discussed below.

2.10 Initial Conceptual Framework on the relationship between Social Sustainability Drivers, Practices and Indicators

Regarding the relationship between sustainability drivers (in this case, social sustainability drivers) and practices, Epstein and Roy (2001) noted that examining drivers of corporate sustainability can assists managers in better understanding the impacts of business decisions on the company and the society, as well as improve the implementation of sustainability strategies. It can also assist in linking sustainability actions to sustainability performances (Epstein and Roy, 2001; Pham and Smith, 2014).

The literature review indicates the existence of the relationship between sustainability drivers and sustainability practices. Similarly, there is also a proven relationship between sustainability driver and indicators. However, the nature of these specific relationships between the three concepts (drivers, practices and indicators) is not yet known. That is, how does a sustainable driver influence or explain the implementation of a specific social sustainability practice (e.g. diversity and equality)? And how does this relationship assist in explaining the performance, using social sustainability indicators?

Therefore, the institutional and stakeholder theory can both provide a lens through which social sustainability drivers, practices and indicators can be explained, and an initial conceptual framework has been created as shown in **Figure 2-14**, to depict this relationship.

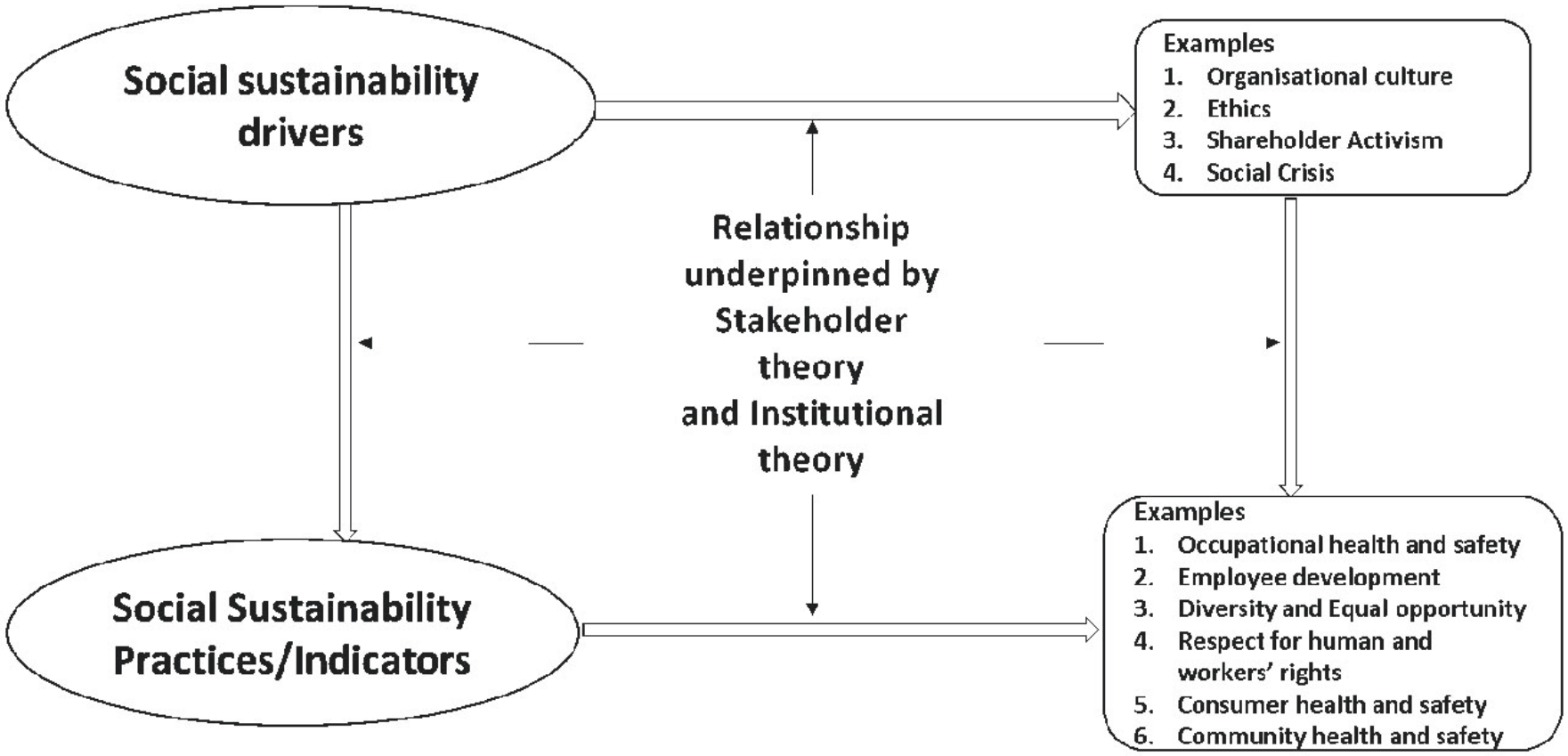


Figure 2-14: Initial Conceptual Framework showing the relationship between Social Sustainability Drivers, Practices and Sustainability Indicators – explained through the Institutional and Stakeholder Theory (Source: Developed by Researcher)

This conceptual framework forms the basis of the research and as such, guide the formulation of research questions, the design of interview protocol and analysis of data gathered after data collection. This research will seek to gather information regarding sustainability drivers from leather supply chain actors and consequently explore how these drivers can assist the leather industry in improving the implementation of social sustainability across the supply chain.

2.11 Research Gaps Identified and Summary

The literature review has discussed sustainability, sustainable supply chains, social sustainability in the leather industry, drivers of social sustainability and sustainability indicators, stakeholder theory and the inter-relationship between these concepts. It has also been established that the environmental and economic aspect of sustainability in the leather supply chain context is more discussed and addressed than the social dimension. The knowledge gaps as, shown in **Table 2-15,** both in research and practice, will be filled through this research.

Table 2-15: Deductions and Knowledge Gaps to be Explored in this Study (Source: Developed by Researcher)

Research Gap	Potential contributions	Previous research relating to this area
Health and Safety has been the centre of focus of social sustainability in the leather industry. There is a lack of details on other social sustainability practices and how they are implemented.	Extending present knowledge on social sustainability practices in the leather industry beyond health and safety can be beneficial towards a whole socially sustainable leather supply chain.	(Munny *et al.*, 2019; Syed *et al.*, 2010; Decouple, 2013)
Research on Social Sustainability in the leather industry is lacking. Indicators to measure social sustainability performance can be different from one industry to another.	Development of qualitative and quantitative social sustainability indicators used by leather supply chain actors are in their infancy. Exploring what the indicators are among actors can provide an avenue for actors to learn from each other and work towards adopting a consensus assessment.	(Popovic *et al.*, 2018; Hutchins and Sutherland, 2008; Sancha *et al.*, 2016)

Research Gap	Potential contributions	Previous research relating to this area
No research exists on the distinct roles of leather supply chain actors in ensuring a socially sustainable supply chain.	The role of supply chain actors can be distinct, and the knowledge of these roles can improve supplier development activities towards a socially sustainable supply chain.	(Foerstl *et al.*, 2015; Meixell and Luoma, 2015; Rajeev *et al.*, 2017; Gao *et al.*, 2017; Kannan, 2018; Saeed and Kersten, 2019)
Limited research on the sustainability drivers across a supply chain.	What motivates companies towards social sustainability could be distinct, and knowledge of this can assist in the implementation of social sustainability across the leather supply chain.	(Abdul Moktadir, Rahman, Rahman, *et al.*, 2018; Wahga *et al.*, 2018; Oelze, 2017; Macchion *et al.*, 2018; Lozano and Haartman, 2017; Pinto and Allui, 2016; Sajjad *et al.*, 2015; Rauter *et al.*, 2017; Hamid *et al.*, 2017; Saeed *et al.*, 2017)
The application of theory to social sustainability studies is still in its infancy.	Components of stakeholder theory (normative, instrumental and descriptive) and institutional theory can assist in explaining how social sustainability drivers influence practices and indicators.	(Hörisch *et al.*, 2014: Seuring and Muller, 2008; Glover *et al.*, 2014; Wu *et al.*, 2012; Dubey *et al.*, 2015; Ahmed *et al.*, 2019; Zhu and Sarkis, 2007; Saeed and Kersten, 2019)

The research gaps identified were used to develop the research objectives presented in the introduction section. In sum, the approach (also the aim) that will be taken in this research is exploring the relationship between **social sustainability drivers, practices and indicators in**

the leather supply chain. The research objectives and components of such objectives are detailed in **Table 2-16** below.

Table 2-16: Research Objectives and their Respective Components (Source: Developed by Researcher)

1. Explore the key social sustainability practices in the leather industry.
    - Determine the approach taken by leather-related companies to implement each practice.
2. Investigate relevant social sustainability indicators used to assess social sustainability performance in the leather SC.
    - Determine the metrics used in assessing social sustainability performance.
    - Investigate the type of indicators that apply to the leather supply chain.
3. Explore the nature of the interaction between key leather SC actors towards a socially sustainable leather SC.
    - Determine the roles and relationships between supply chain actors towards social sustainability implementation.
4. Empirically determine the key social sustainability drivers among leather SC actors.
    - Investigate the relationship between social sustainability drivers and practices.
    - Investigate the relationship between social sustainability drivers and indicators.
5. Develop a theoretical and empirically supported framework establishing the relationship between sustainability drivers, practices and sustainability indicators.

Methodology to achieve the aims and objectives of the study is discussed in the following section.

3 Research Methodology

This chapter discusses the methodology that was employed in this research. To achieve the aims and objectives of the study and due to its exploratory nature, a qualitative approach was appropriate to unravel the influences stakeholders have on sustainability drivers and the implementation of social sustainability practices and indicators in the leather industry. Therefore, the approach to writing this chapter is to initially describe different aspects of the research methodology. This was followed by a discussion on the relevance of the different topics to the context of this research in order to provide clarity in understanding what is being discussed.

The initial conceptual framework developed in the research suggests a relationship between social sustainability drivers, practices and indicators. However, the nature of these relationships is not known. The key question of "How do social sustainability drivers influence the implementation of specific social sustainability practices and indicators?" is explored.

This chapter is organised as discussion of the; research approach and philosophy; research purpose, methods and strategy; research methodology, covering discussion relating to data collection and data analysis as well as the empirical context of the research; how data was analysed; issues of research quality in qualitative studies and a summary of the chapter.

3.1 Philosophy of the Research

Usually, research is chiefly a knowledge-oriented endeavour (Veal, 2006). The general term for the study of the nature of knowledge, reality, and existence is called research philosophy (Waite and Hawker, 2009). Academic research can either be of a qualitative or quantitative nature. However, both approaches carry out investigation differently, and both require a consideration of the epistemological and ontological perspectives (Saunders *et al.*, 2016; Bryman and Bell, 2011). According to Thiétart (2001, p.13), "*epistemology is the study of knowledge and so of science: the study of its nature, its validity and value, its methods and its scope*". Epistemology in business research has four main philosophical perspectives: positivism, pragmatism, interpretivism and realism (Saunders *et al.*, 2016), and these paradigms allow researchers to provide "validity" and "legitimacy" to their research study (Thiétart, 2001).

Positivism means the application of methods of natural sciences to social reality studies (Bryman, 2012). It is founded on the assumption that social research is objective and not

influenced by the process of studying it (Collis and Hussey, 2014). A positivist usually follows a quantitative and deductive nature of research (Bryman and Bell, 2011). Interpretivism opposes the view of positivism and suggests that to obtain rich information about the social world, it is important for the researcher to attempt to *"develop an in-depth subjective understanding of people's lives"*, thus involving an inductive approach to research (Pulla and Carter, 2018). Pragmatism is of the position that the ontological, epistemological positions espoused in research should be dependent on the nature of the research problem (Onwuegbuzie and Leech, 2005; Žukauskas *et al.*, 2018).

Lastly, realism shares characteristics with positivism (Bryman, 2012) and adopts both interpretivism and positivism principles (Žukauskas *et al.*, 2018). It assumes a scientific approach to knowledge development (Bryman and Bell, 2011). Realism on its own is of two types: direct and critical realism. Direct realism simply states that you get what you see (Saunders *et al.*, 2016) and does not acknowledge the presence of the supporting structures that make up the phenomena that are being attempted to be understood (Bryman and Bell, 2011). On the other hand, critical realism is the detached version of positivism (Easterby-Smith *et al.*, 2015). Its use has become prominent in business and management because it offers a "structured way of thinking about social and organisational problems (Easterby-Smith *et al.*, 2015). Critical realism posits that we can understand the "social world" properly if we understand the social structures that surround or give rise to events (Bryman and Bell, 2011). Furthermore, critical realism has been suggested in the literature as the most appropriate philosophy for a case study research (Perry, 1998; Easton, 2010) because of the following reasons:

1. It is characterised by some levels of researcher objectivity that an external reality exists.
2. Research using a case study strategy is usually novel and, thus, requires inductive theory development.

From the literature review, not much is known about the drivers of sustainability in the leather industry, especially across the supply chain. Similarly, not much is known about the relationship between social sustainability drivers, practices and indicators. The nature of the research sets up that social structures (stakeholders and supply chain actors – acting as sources of pressure for sustainability) play a role in influencing the implementation of sustainability practices and performance (in this case, the social aspects). Furthermore, critical realists advocate that research is often based on some theory or assumptions because these theories

assist us in "getting closer to reality" (Fletcher, 2017). Specifically to this study, the deductive development of the initial conceptual framework using relevant theories allowed for some researcher objectivity that recognises an external reality exists.

This research is based chiefly predicated on the basis that institutional and stakeholder theory (which holds that the involvement of stakeholders, who underpin external pressures such as coercive, normative, mimetic drivers; and internal pressures encapsulated in corporate strategy, organisation culture, organisation resources, and organisation characteristics) can assist in better understanding how social sustainability drivers can explain social sustainability practices and indicators, in the leather industry. Additionally, Fletcher (2017) and Easton (2010) noted that critical realism is capable of allowing researchers to analyse social problems and recommend solutions, as it gives an opportunity to engage in explaining and deducing causal relationships.

The other considerations needed to be made is that of the ontological dimension. Ontology concerns itself with the nature of reality (Easterby-Smith *et al.*, 2015). Ontological positions include objectivism and subjectivism (Saunders *et al.*, 2016). Objectivism takes the position that a phenomenon exists without dependence on the actors involved (Bryman and Bell, 2011; Grix, 2010). On the other hand, subjectivism, which is attributed to constructionism, asserts that *"social reality is made from perceptions and consequent actions of social actors"* (Saunders *et al.*, 2016, p.130). According to Clarke and Braun (2013), subjectivism is appreciated in qualitative research.

Ontologically, this research is based on subjectivism. This is grounded on the basis that corporate sustainability efforts require a *"vision, commitment and leadership"* (Azapagic, 2003; Salzmann *et al.*, 2005; Lozano, 2015). An objective ontological position could have posited that CS efforts and initiatives are well established in an organisation such that a change in management or stakeholder preferences would not influence activities relating to implementation or measurement of corporate sustainability. This opposes the position taken in this study. This research initially proposes that through stakeholders, social sustainability actions are driven by a range of factors across the supply chain (Tatiechi, 2013; Pinto and Allui, 2016; Beske and Seuring, 2014).

3.2 Research Approach

Usually, business-related research follows two approaches: the inductive and deductive approach (Bryman and Bell, 2011). Deduction involves the development of a theoretical or conceptual framework before testing this framework empirically, while induction follows an opposite approach to involve the development of theories after the empirical observation of the social world (Gill *et al.*, 2010). Several authors have noted that the deductive approach is inclined towards quantitative research, while the inductive approach is inclined towards qualitative research (Gill *et al.*, 2010; Bryman and Bell, 2011).

The inductive and deductive approach can be referred to as the traditional research approaches, with more researchers noting that it is rare for research to be purely inductive or deductive (Grix, 2010; Bryman, 2012). As a result, a research approach called "abduction" has been coined in the literature (Bryman, 2012; Bryman and Bell, 2011; Grix, 2010). Researchers using abduction suggested that both deductive and inductive approach can be combined in the same research, even though one approach could be more dominant than the other (Saunders *et al.*, 2016; Perry, 1998; Grix, 2010). Bryman (2012) noted that the abductive approach is differentiated by the establishment of theoretical understandings of the contexts and people under study. Additionally, Grix (2010) suggested that most research integrate some elements of both induction and deduction.

This current research is based on using an abductive approach rather than a pure deductive or inductive method. An abductive approach provides an avenue to infer predictions (that may be true) to incomplete observations about the relationship between social sustainability drivers, practices and indicators (Bell *et al.*, 2018). The abductive approach suggests that theories evolve simultaneously with empirical observation and verification by employing both deductive and inductive approaches. This end product of an abductive approach is the development of a tentative framework (as opposed to hypothesis testing in deductive approach and theory verification/generalisation in inductive approach) (Rashid *et al.*, 2019). The tentative framework in the next chapter provides the product for the abductive approach.

While the inductive approach allows the researcher to verify theory by facts searching in order to describe patterns and the deductive approach allowing for testing the validity of hypothesis, the abductive approach allows for the understanding of the motives of social actors behind occurrence of social phenomena which is the basis of the aim of this research (Rashid *et al.*, 2019). In this study and in line with the systematic combining that the abductive approach is

known for (unlike plain deductive or inductive approach), a deductive approach was employed to develop the initial conceptual framework in the literature review section, which proposes the relationship between three variables: social sustainability drivers, practices and indicators, with the research being grounded on stakeholder theory and institutional theory. The inductive approach aspect takes a bottom-up approach, working up to theory through data analysis and initial conceptual framework for verification and refining purposes in order to arrive at a tentative theory/framework about the relationship between social sustainability drivers, practices and relationship.

3.3 Research Purpose, Research Methods and Research Strategies

The purpose of research could be in three folds: exploratory, descriptive and explanatory (Sekaran and Bougie, 2013; Neuman, 2014). An exploratory study is one *"whose primary purpose is to examine a little understood issue or phenomenon and to develop preliminary ideas about it and move toward refined research questions"* (Neuman, 2014, p.38). It seeks new understandings, new insights and provides an opportunity for a researcher to generate questions for future research (Neuman, 2014). On the other hand, descriptive research plays a role to either an exploratory or explanatory research by acting as precedence to defining and providing an accurate picture of situations or phenomena (Sekaran and Bougie, 2013). Lastly, explanatory research seeks to establish a "causal relationship" between variables, which could involve more quantitative methods of research (Cooper and Schindler, 2013). Little is known about sustainability drivers in a supply chain and their relationship to sustainability practices and indicators, and as such, an exploratory approach is initially suitable for the purpose of this study (Neuman, 2014; Cooper and Schindler, 2013).

Moving forward, methods of research can either be qualitative or quantitative (Bryman, 2012). Quantitative research is concerned with the testing of the hypothesis that has been previously stated at the beginning of the research (Bryman, 2012). Data gathered is usually numerical and analysis of those sets of data proceed with the use of statistics, tables and charts, leading to the development of causal and deductive theories (Neuman, 2014). On the other hand, qualitative research is characterised by the collection of non-numerical data from research participants in their own domain (Robinson, 2014).

Usually, qualitative researchers gather textual data from participants in the form of images, documents, observations, and transcripts (Neuman, 2014). Also, qualitative measures are suitable for this research as it provides an avenue to uncover the unknown (Sekaran and Bougie,

2013). Thus, since research on the focus of this study in the leather industry context has not yet been carried out, a qualitative approach (over a quantitative approach) is suitable. The research approach employed in previous similar studies to uncover drivers from different industries provides justification for the approaches followed in this research (Lozano, 2015; Giunipero *et al.*, 2012).

Strategies of research in business and management studies have been explained by different authors, and they include action research, case studies, ethnography, field experiments, archival research, surveys (Easterby-Smith *et al.*, 2015). Action research deals with the researcher contributing to resolving the problem at hand while collecting data and after data collection (Jefferson, 2014); experiments involve the study of causal relationships between variables and usually needs an experimental and control group (Cooper and Schindler, 2013); surveys are popular for collecting large amounts of data that are usually quantitative in nature, usually with the aim of generalising the results obtained to a larger population (Collis and Hussey, 2014); ethnography is the study of human behaviour such that the researcher gets immersed in the study to comprehend the meanings and consequence of people's actions (Easterby-Smith *et al.*, 2015). Archival research involves the analysis of textual data from already existing historical data available from the statistical and financial (Ventresca and Mohr, 2017). Case study research involves exploring a small number of *"social entities"* about which data are obtained using multiple sources of data through a flexible research process (Easton, 2010). Case study research gives the researcher the opportunity to resolve intricate relationships in different cases (Easton, 2010).

The case study research strategy is capable of answering "why", "what" and "how" questions and is usually employed in exploratory and explanatory research (Saunders *et al.*, 2016). Also, interviews, observation, questionnaires and documentary analysis are some of the popular data collection techniques used in case study research (Saunders *et al.*, 2016). Furthermore, case studies can be single or multiple (Bryman and Bell, 2011; Easterby-Smith *et al.*, 2015) as well as holistic or embedded (Yin, 2003; Yin, 2009; Yin, 2018). A single case can be critical, revelatory, unique, representative or longitudinal and may be sufficient to create a "well-formulated theory" (Remenyi *et al.*, 1998; Bryman, 2012). On the other hand, a multiple case study strategy provides a means to compare results from analysis of data collected from cases and presents the opportunity to generalise findings to other contexts, making them preferable to a single case (Yin, 2018).

Previous studies that relate to the current study took an exploratory approach towards identifying the motivators of sustainability, as well as employing a multiple case study research design, using semi-structured interviews as the main data collection techniques (Rauter *et al.*, 2017; Pinto and Allui, 2016; Macchion *et al.*, 2018; Wahga *et al.*, 2018; Oelze, 2017). As a result, the case study methodology is appropriate for this study because it provides an opportunity to investigate under-studied phenomena and obtain insights about the research questions (Voss *et al.*, 2002) directly from actors in the leather supply chain. The under-studied phenomena in this study are social sustainability in the context of the leather supply chain.

Other methods that have been employed in similar studies include the Delphi study (Giunipero *et al.*, 2012), which involves coordinating a structured communication process for a group of people so that complex problems can be effectively dealt with (Seuring and Müller, 2008; Giunipero *et al.*, 2012). This approach was not appropriate to this study because the current study was not intended to follow a tightly structured process to arrive at a consensus view, among research participants.

Furthermore, the cases represented in this research were heterogeneous in nature, i.e., different company size, different product categories, and different supply chain roles. This approach was adopted to gain a broad insight into the nature of the research problem and provides an avenue to compare, as well as ensure transferability of results to the leather supply chain, where applicable.

The multiple case study approach allows for replication logic and a rich source of information to generalise findings (Yin, 2018). Replication logic, i.e. the ability of results to be duplicated, can be of two dimensions: literal replication and theoretical replication (Yin, 2018; Thiétart, 2001). The number of selected cases usually determines the dimension of replication logic possible. Literal replication emerges as a result of the individual case studies predicting similar results, while theoretical replication is as a result of distinct results from foreseeable reasons (Yin, 2018). A key step with these replication procedures is the development of a theoretical framework that anticipates the conditions where the literal replication and theoretical sampling applies (Ridder, 2017). The current study followed both replication procedures by developing an initial conceptual framework through which it was anticipated that the roles of the leather supply chain actors towards social sustainability implementation in the supply chain can be distinct, while drivers, practices and indicators of social sustainability could either be similar or different.

The case study strategy is often criticised by positivist researchers because of its tendency to produce results or conclusions that are not generalisable (Yin, 2018). This issue does not pose a problem to this study, as its purpose was not to generalise results. Instead, the study sought to explore under-researched areas of sustainability in the leather supply chain, thereby providing a foundation for further research, which can be generalisable and/or quantitative in nature. Yin (2018) advocates that the design of case studies should encompass, to increase the credibility of research design:

1. The main questions
2. Units of analysis
3. Links between data and research objectives
4. Procedures for interpretation of data

The main research gaps (components of the research questions) have been initially listed in the literature review section in **Table 2-15**. The unit of analysis, links between data and research questions and finally, data interpretation procedures are discussed in the sections to follow.

3.4 Unit of Analysis

The unit of analysis refers to the level of aggregation of the data collected during the subsequent data analysis stage (Sekaran and Bougie, 2013). The unit of analysis is the phenomenon under study, about which data are collected and analysed, and is closely linked to the research problem and research questions (Collis and Hussey, 2014). In business research, a unit of analysis might be an individual, a group of people, organisations and societies (Bryman and Bell, 2011). This should be differentiated from the unit of data collection, which is usually a source of evidence from the case (s) (Yin, 2018).

Easterby-Smith *et al.* (2015) posited that there could exist more than a unit of analysis in a study, leading to the presence of sub-units of analysis which can otherwise be referred to as embedded case (s). For this research, the description of the unit of analysis in this study is presented in **Figure 3-1** below.

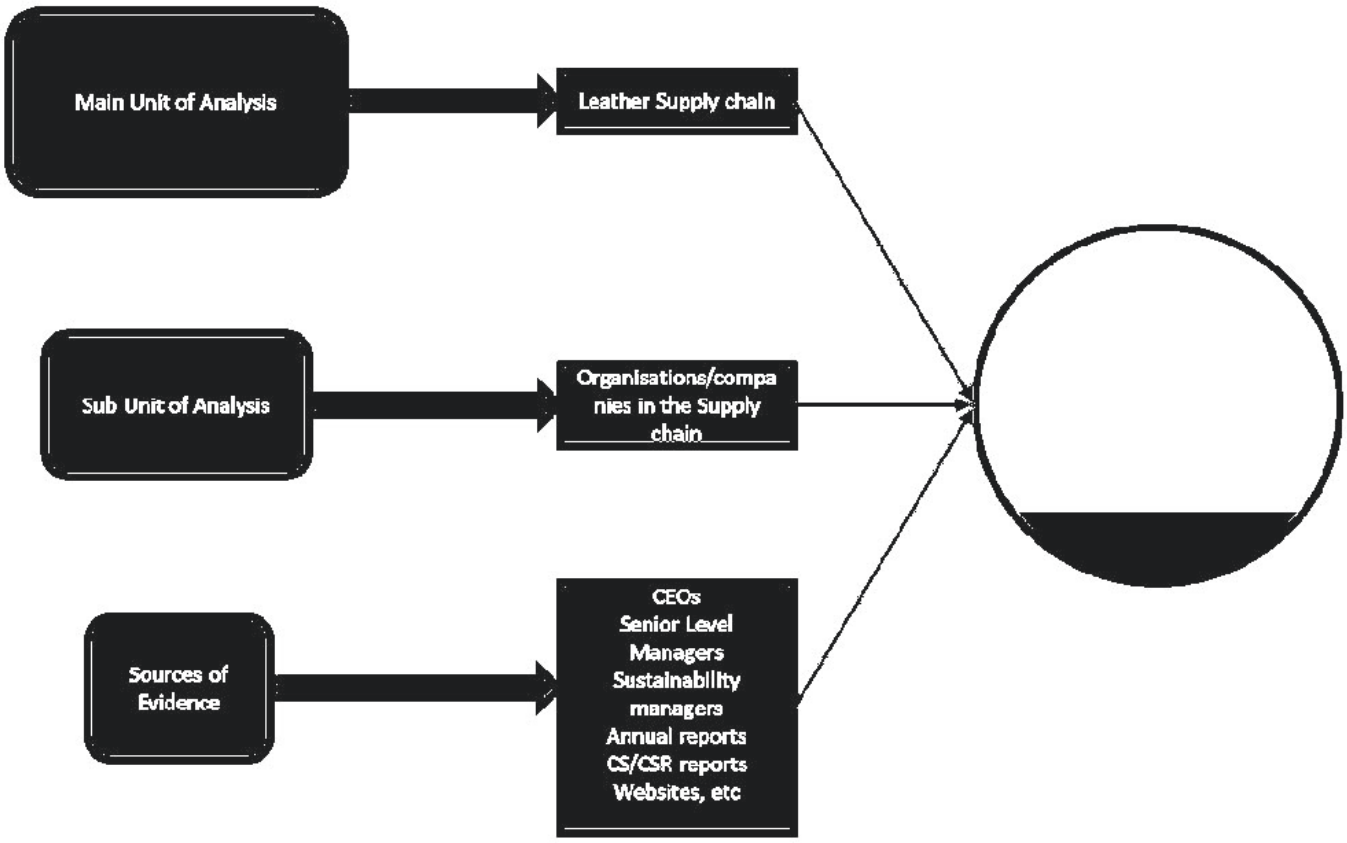


Figure 3-1: Description of the Multiple Case Study's Unit of Analysis (Source: Developed by Researcher)

As depicted in the diagram, the main unit of analysis, in this case, is at the leather supply chain level, which is the focus of the study, while the sub-unit of analysis are actors in the leather supply chain. This includes the chemical companies, tanneries, manufacturers, wholesalers/retailers. Units of data collection (also sources of evidence) encompasses primary sources from leather-related companies such as senior-level managers in sustainability-oriented roles and secondary (annual reports, sustainability reports, websites, archival records) sources.

3.5 Research Empirical Context

This research focuses on the European leather industry. The EU leather industry is made of different sectors: starting from the raw materials suppliers to the tanning industry, chemical suppliers in the upstream and the manufacturers, wholesaler and retailers of different leather in the downstream (Brugnoli *et al.*, 2013). Using leather has diverse advantages because of its unique qualities like breathability, flexibility and adaptability (Daniels and Landmann, 2013). Reportedly, the EU leather industry and its allied sectors, including the chemicals and machinery sectors, comprise an estimated 40.000 companies and generates a turnover of 48 billion Euros, employing around 435,000 people (Eurostat, 2018).

The leather industry in the EU is regarded as a world leader regarding the quality of products (Brugnoli *et al.*, 2013). Italy represents the largest industry in Europe, accounting for approximately 65% of the EU's total production, and as of 2016, it also represented the highest exporter of leather with a 17.7% share of world leather exports (Leathermag, 2018). Excluding the manufacture of leather goods, the gender balance in the industry is split between 57% of males and 43% females; has an average of 21 employees per company and 32% of employees from leather and footwear sectors are aged 50 or over (Skills 4 Smart, 2021).

Chemical companies that were included in the study supply their products to a wide range of end-use industries like textiles, automotive, furniture, footwear industries. Several of the chemical companies principally supply chemicals for tannery-related companies or have divisions that only deal with the leather industry (Allied Market Research, 2021). The chemicals supplied can be related to tanning, beam house, dyeing and finishing operations.

Tanneries are seen to conduct a significant volume of business with chemical companies, as seen above and can be referred to as middle to midstream actors in the leather supply chain. According to Skills 4 Smart (2021), the tanning sector landscape in Europe is comprised of two parts: southern parts such as Italy, France, Portugal and Spain, representing the most important but specialised small and medium-sized companies; and northern parts such as the United Kingdom, Germany, Netherlands, Sweden, Austria, representing larger companies with greater economies of scale. Leather manufacturers convert finished tanned leather into leather goods like bags, belts, leather garments. etc., while retailers sell finished manufactured leather goods to the end consumers.

The footwear sector of the EU represent 41%, serving as the main destination for the use of leather; leather goods -19%, furniture/upholstery represents 17%, automotive industry - 13%, clothes/garments - 8% and other uses representing 2% (Eurostat, 2018). The tannery represents the main sector in the industry, as its activities determine the "*aesthetic and performance characteristics*" needed by different downstream sectors (Brugnoli *et al.*, 2013). The European tanning sector is also regarded as a global leader when it comes to turnover (representing 29.5% of the world total) and quality in terms of product and process innovation as well as social commitment (Brugnoli *et al.*, 2013).

3.6 Research Design

A research design is defined as "a framework for the collection and analysis of data to answer the research question and meet research objectives providing reasoned justification for choices

of data sources, collection methods and analysis techniques" (Saunders *et al.*, 2016, p.726). After describing and choosing the case study approach, the next step is to design the case study (Yin, 2018). This research focuses on one supply chain (the leather supply chain) and seeks to gain a supply chain perspective of social sustainability drivers and their corresponding relationship to relevant practices and indicators.

According to Yin (2018), the research design should be in 5 stages:

1. Case study questions.
2. Propositions, if applicable. In this case, research objectives and initial conceptual framework replaces propositions.
3. Cases (described in the unit of analysis section).
4. Logic linking the data to the initial conceptual framework (replacing propositions suggested by Yin).
5. Criteria for interpreting the findings.

Accordingly, stages 1 to 3 are discussed in the data collection section, while 4 and 5 were discussed in the data analysis sections. Hence, the stepwise approach to research design followed by Jraisat (2010) was adapted to this research as described below:

Phase 1- Literature review and development of conceptual framework: This phase required the extensive literature review in chapter 2, which aimed at identifying the research problem and provide justification to carry out the research. Previous research in the sustainability and sustainable supply chain was understood as well as in the context of the leather industry. The literature review identified research gaps and hence, the definition of the research questions, aims and objectives. The understanding of research problems and gaps yielded the development of an initial conceptual framework that guided data collection and analysis.

Phase 2- investigation of initial conceptual framework: this involves the use of multiple case studies, with data collected from senior managers in leather companies in the supply chain through semi-structured interviews and analysed in order to answer research questions. To increase the validity and reliability of the findings from the interviews, data was also obtained from archival records such as websites, company magazines, annual reports, CSR/Sustainability reports. Details of the interviews completed were sent back to participants for review to increase credibility in the research.

Phase 3- Validation of initial conceptual and modification into a new conceptual framework: at this stage, the analysis and interpretation of data collected was used to validate the initial conceptual framework in the literature review chapter. The key outcome of this stage was the verification of associations or dissociations between drivers, practices and indicators through the lens of the institutional and stakeholder theory.

3.7 Data Collection

This stage of the research involves the gathering of data through different means. The nature of data is usually primary or secondary (Saunders *et al.*, 2016). Primary data is data collected anew through various means on the field, while secondary data is one that has already been collected by previous researchers and readily available in different forms such as reports, white papers, government publications, industry-level statistics etc. (Bryman, 2012). The issue of quality is of paramount importance in the data collection stage as this impacts the overall quality of the research (Easterby-Smith *et al.*, 2015). In this study, the data was collected from key actors (tannery, chemical suppliers, manufacturers, retailers) in the European leather supply chain. Data collection in this study thus followed a protocol referred to as a case study protocol. According to Yin (2018), the case study protocol encompasses the series of questions directed to a different audience than it would have been with a conventional questionnaire and is essential for a multiple case study design. A case study protocol is composed of sections described in **Table 3-1** below.

Table 3-1: Principal Components of the Case Study Protocol (Source: (Yin, 2018; Rashid et al., 2019))

Main content	Content elements
Case study overview	Objectives of the case study, key findings that led to the need for the case study (defined in the Introduction and Literature review (Research Gaps Identified and Summary) sections.
Data gathering procedures	Measures to protect case study participants, ethical considerations, the outline of potential sources of data and roles of participants, time scheduling and resources required.
Protocol questions	Guiding questions needed by the researcher to answer the research questions and fulfil the project's aim and objectives (detailed in the interview protocol in appendix 1)
Interpretation process	Generating themes and codes, transcriptions and comparison with field notes, verification of transcriptions and analysis with research participants
Criteria for assessment	Assessing the credibility, conformability, transferability dependability of the research, findings and conclusions (detailed in the Research Quality section).
The format for the case study report	Case descriptions and description of participants (in the results and discussion), the format of data analysis in such a way that each finding relates to the research objectives (defined in the data analysis section)

The components of the protocol highlighted above are discussed in various sections of the report, spanning the whole length of this document. Primary and secondary data were gathered and analysed to fulfil the research objectives and are discussed below.

3.7.1 Primary Data Collection

In a case study research, interviews involve the collection of spoken and unspoken responses from case study participants in an in-depth, conversational nature (Yin, 2018; Yin, 2009). Interviews can either be unstructured, structured or semi-structured (Sekaran and Bougie, 2013; Grix, 2010). Unstructured interviews are conducted without the need to develop a standard set of questions to ask the respondents. Rather, "loose" questions are asked of respondents in a

random manner (Clarke and Braun, 2013). Structured interviews allow for less flexibility as it requires predetermined questions in a certain order across the range of interviewees (Grix, 2010) and is usually appropriate for quantitative research (Clarke and Braun, 2013).

Semi-structured interviews involve asking a pre-defined set of questions that may vary from one interviewee to the other (Saunders *et al.*, 2016). This was used in this study. It encourages interviewees to delve deeper into new discussions that are not necessarily covered in the interview protocol. This type of interview is more deductive because questions were shaped from the literature review. On the other hand, questions asked were opened ended, providing the research participants with the opportunity to engage with the study entirely.

In this research, individual, semi-structured interviews served as the method of primary data collection. These interviews were directed to senior managers of sustainability-oriented leather companies across the EU, conforming to a similar approach employed in related studies, as shown in **Table 3-2**. Details of this interview protocol are stated in the appendix section.

Table 3-2: Common Research Participants Engaged in Similar Studies (Source: Developed by Researcher)

			Who was interviewed?				
Author	Publication title	Industry focus	CEO/Founder/General Director	Vice president/Senior managers	HR Director	Sustainability/ CSR related positions	Others
(Rauter *et al.*, 2017)	Going one's own way: drivers in developing business models for sustainability	Miscellaneous	1	0	0	1	Department manager, marketing manager
(Pinto and Allui, 2016)	An Analysis of Drivers and Barriers for Sustainability Supply Chain Management Practices	Miscellaneous	1	0	1	1	Purchasing director, PR director
(Macchion *et al.*, 2018)	Strategic approaches to sustainability in fashion supply chain management	Fashion	0	1	0	1	Quality assurance managers, energy managers, industrial directors/planner
(Wahga *et al.*, 2018)	Understanding the drivers of sustainable entrepreneurial practices in Pakistan's leather industry	Leather	1	0	0	0	Production manager
(Oelze, 2017)	Sustainable Supply Chain Management Implementation–Enablers and Barriers in the Textile Industry	Textile	1	0	0	1	Sourcing manager, supply chain manager, Head of marketing

The details of the full interview protocol are shown in **Table 3-3.**

Table 3-3: Interview Protocol Details (Source: Developed by Researcher)

Section	Objectives
Respondent information	Collect data relating to respondents' job details and responsibilities.
Firm information	Obtain information relating to the firm and its position in the supply chain.
Definition of sustainability	To obtain what sustainability means to the organisation, how it is implemented, and the dimensions considered.
Social Sustainability	Obtain data about social sustainability, practices, drivers and indicators used to measure performance—the roles of and relationship between supply chain actors towards a socially sustainable leather supply chain.
General questions	Obtain information relating to challenges companies face in evaluating social sustainability performance; benefit from sustainability implementation and reporting: barriers companies face when embarking on social sustainability implementation; recommendations for successful sustainability implementation.

The interviews were audiotaped (when allowed), and notes were taken to increase the reliability of the data collected.

3.7.2 Secondary Data Collection

Secondary data already exists in different forms such as archives, reports and other forms and are usually outputs from previous research. Saunders *et al.* (2015) identify three types of secondary data, which are document type, survey type and multiple source type. Document secondary data are usually used in combination with primary data and comprises of reports, magazines, interview transcripts, organisations' databases, video/voice recordings etc. (Saunders *et al.*, 2016). Recently, companies have been more open to communicating their sustainability credentials and efforts through their websites, annual reports, sustainability reports, CSR reports (Davidson, 2011; Jose and Lee, 2007), and this is also applicable to the

companies in the global leather industry. Hence, secondary data in the form of documents is used to complement primary data collected in this research.

Additionally, secondary sources of data from organisations' websites, reports, archives were used for triangulation purposes to confirm the efficacy of primary data collected. Thematic analysis (discussed later) is used to analyse the data collected from secondary data in conjunction with the primary data.

3.7.3 Triangulation

This is *"associated with the practice of drawing on a variety of data sources, which are cross-checked with one another to limit the chances of bias in the methods or sources employed"* (Grix, 2010, p.176). Perry (1998) provided four main means of triangulating data gathered through interviews: audiotaping interviews to cross-check with notes taken; interviewing more than one person in each case organisation; conducting additional interviews with experts in related NGOs, industry associations; and lastly, using relevant organisation or industry documents or reports to verify the information supplied in the interviews.

In this study, in some companies, one employee was interviewed in instances where two employees were not available. Leather certification organisations and associations were also interviewed so they could provide an overarching overview of the social sustainability endeavours of their members, and in some cases, corroborate the information obtained from the companies in the supply chain. In collecting primary research data, the elements of a sampling strategy include the population, sample frame, sample size and the sampling technique (Collis and Hussey, 2014). These are discussed below.

3.7.4 Population

This is defined as the entirety of units that a sample is selected from (Bryman and Bell, 2011) and represents the premise through which findings from the sample are generalised (Lavrakas, 2008). The target population for this study is the actors in the European Leather Supply Chain, comprising of the tanneries, chemical suppliers, manufacturers and wholesalers/retailers representing upstream stakeholders, focal companies and downstream stakeholders, as previously established in the literature review. Reportedly, the EU leather industry and its allied sectors, including the chemicals and machinery sectors, comprise of an estimated 40,000 companies and generates a turnover of 48 billion Euros, employing around 435,000 people (Eurostat, 2018). The sample size for this study was selected from a defined population.

3.7.5 Sample Frame

This is a *"record of the population from which sample can be drawn"* (Collis and Hussey, 2014, p.344). Only companies that have shown their inclination towards sustainability practices were selected for the case study. In this study, the exact number of all leather related companies in the European leather supply chain that are sustainability-oriented could not be determined as statistics or databases with records of such sustainable leather actors (companies) do not exist. Thus, experts from the United Kingdom Leather Federation (UKLF) and the Confederation of National Associations of Tanners and Dressers of the European Community (COTANCE), the representative body of the European leather industry, were contacted to obtain contacts of companies that act sustainably. In addition, contacts from the research team were explored, from where a feasible sample size was generated.

3.7.6 Sample Size

In qualitative studies, the sample size is not based on the importance of generalisability, rather predicated on the need to fully investigate the chosen topic of study (Higginbottom, 2004). Easton (2010) noted that the sample size in a case study research is never going to be sufficient in order to make statistical generalisations. Thus, defining a sample size in this research is not taken as a priority. However, it is recommended by Patton (2015) that a minimum number of samples be set at the beginning of the research as this acts as a guide during the data collection process. Crawford *et al.* (2019) suggested that at most, having three or four distinct cases is the threshold that researchers can realistically handle. Additionally, another justification can be made by referring to previous studies that indicated the points at which data saturation was reached (Marshall *et al.*, 2013).

Consequently, in this study, four cases that represent the key actors in the leather supply chain were considered. In each case, between three to five companies were approached to serve as sources of evidence. This allowed for a within and cross-case analysis in the data analysis stage. The within-case analysis allows for a deep exploration of a single case (which could form a single case study or be a part of a multiple case study) as an entity in itself (Paterson, 2010). The within-case analysis leads to an understanding of the patterns of results that could then be compared to other cases (in case of a multiple case study) (Paterson, 2010). On the other hand, the cross-case analysis allows for the identification of similar and different patterns or themes across cases, as well as aggregation of findings across the cases (Burns, 2010).

In this study, each case (chemical suppliers, tanneries, leather goods manufacturers, wholesalers/retailers) were described and analysed to understand the roles of each actor in the supply chain towards social sustainability. It was also assessed how the practices, drivers and indicators differed from one actor to the other.

3.7.7 Sampling Techniques

As established earlier, the purpose of the research is not to statistically generalise the findings from this research; hence, probabilistic sampling is not necessary (Robinson, 2014). Thus, non-probabilistic sampling methods were used. These methods include convenience sampling, quota sampling, purposive sampling and snowball sampling. Convenience sampling involves choosing sampling units based on the ease of accessibility (Easterby-Smith *et al.*, 2015). Quota sampling is the non-randomised version of the stratified sampling technique that involves the selection of a sample that highlights different categories of a population (Bryman. 2012). Such categories include age groups, ethnicity, religion etc. Purposive sampling is used when the researcher selects sample units based on established criteria (Easterby-Smith *et al.*, 2015). Lastly, snowball sampling is used to select members of a defined population that may not be easy to find; it usually starts by asking included members of a study to suggest other people that also fit the defined criteria (Sedgwick, 2013).

In this study, two sampling techniques have been used. The first sampling used in selecting cases was purposeful. As Cooper and Schindler (2013) noted, qualitative research usually employs purposive sampling. Case study participants were purposefully selected because not all companies in the leather industry act sustainably, and if they did, not all publish the details of their sustainability activities, making random sampling inappropriate for this research. In selecting purposeful samples, a set of criteria are required (Easterby-Smith *et al.*, 2015). The criteria were developed by drawing on the experience from previous research in related studies and are stated in **Table 3-4** below. The introduction of and adherence to these criteria could reduce the potential for selection bias and error by reducing subjectivity in the choice of participants in the study.

Table 3-4: Set Criteria to Guide the Purposeful Selection of the Case Study Companies and Interviewees (Source: Developed by Researcher)

Supply Chain Focus	Location of companies	Publicity of Sustainability actions via:	Position of interviewees in the organisation	How interviews were conducted	Average time of interviews
Core companies in the chemicals, tanneries, manufacturing, wholesalers/retailers	Europe	Website, annual reports, sustainability/CSR reports	1. CEOs 2. (Chief) Financial Officer 3. Purchasing Director 4. Public relations director 5. Quality assurance managers 6. Production manager 7. Logistics manager 8. Corporate Sustainability Director/Managers 9. Health and Safety director 10. Head of HR 11. CSR manager 12. Supply Chain Manager	Face-to-Face, Online Video Interviews	40 minutes

Senior managers/CEOs were selected to be interviewed within their respective organizations because of the specific knowledge they possess in relation to their organisation's sustainability strategies and implementation. (Giunipero *et al.*, 2012). In relation to **Table 3-4** above, not all the people occupying the positions listed in the "potential position of interviewees *in the organisation"* were interviewed. The list only represents a range of potential employees that could be available to be interviewed.

Secondly, snowballing sampling was used in the case of companies that were not easily accessible. Thus, interviewees from selected companies were asked to suggest companies in their supply chain (or not) that also act sustainably. To triangulate data and increase credibility, suggested companies outside of the European leather industry (but with close affiliation to the European leather industry) will be interviewed.

3.7.8 Pilot Study

Doody and Doody (2015) defined a pilot study as a trimmed-down version of a larger study involving fewer participants that possess similar characteristics to the larger participants. Conducting a pilot has several advantages apart from ensuring methodological rigour and improving the research quality, such as the provision of useful information regarding financial or human resources needed; opportunity to develop the needed skills required for the larger study; effectiveness of chosen data analysis techniques and strategies can also be evaluated (Doody and Doody, 2015). However, a pilot study should not be confused with a pretest which allows for less flexibility in adjusting the data collection plan (Yin, 2018).

In this study, a pilot case consisting of two interview participants from a leather related company was carried out. This company met the criteria previously defined for the larger case study and was approached using the personal contacts of the research team with the company. The case study protocol and interview protocol designed for the larger study was used for the pilot study. The pilot study results also formed part of the wider data collection and are presented with the rest of the data (in the results and discussion section).

The face-to-face pilot study allowed for the refinement of the interview questions in the semi-structured interview protocol. Repetitions and questions that were not clear were fine-tuned or removed. The pilot study also allowed to gauge what kind of information companies were willing to reveal about their social sustainability activities and how to seek out related information. Finally, the pilot study enabled the snowballing technique of recruiting research

participants, as the pilot study participants recommended potential research participants that could add value to the study.

3.7.9 Time Horizon

According to Sekaran and Bougie (2013), business and management research can be carried out in two types of time horizons which can be longitudinal or cross-sectional. Longitudinal research involves carrying out studies on people over a period and more than once (different points of time) (Neuman, 2014). For example, studying the behaviour of employees before and after changes in the organisation's leadership. Cross-sectional research is employed to gather data in an on-off manner (that is, at just one point in time) (Collis and Hussey, 2014). It is usually used when there are constraints in time and resources. This research followed a cross-sectional approach as it sought to gather data from each stakeholder group at one point in time.

3.8 Ethical Issues in the Research

Conducting research usually requires that different ethical issues need to be resolved, especially when dealing with human subjects (Bryman, 2012). Case study research in business research usually involves human subjects (Yin, 2018); thus, the below issues, as identified by (Bryman and Bell, 2011; Bryman, 2012), were addressed:

1. Gaining informed consent from case study participants: A short, informed consent form was presented to the interviewees before the interview to allow interviewees to be aware of the nature and purpose of the research. This was presented either electronically or physically, depending on the medium of data collection engaged.
2. Protection of case study participants from harm which may include any form of deception: A participant information sheet was presented to interview participants so that they could understand the purpose of the research and also to understand how the information they provided would be used in the thesis report and future research publications.
3. Privacy and confidentiality of participants must also be protected: the names of the participants were not required during the interview process. Additionally, names of companies were not reported when presenting the result of the study. In some cases, Non-Disclosure Agreements (NDAs) were signed between the researcher and the companies that agreed to participate in the study. Because the interview participants were presenting the data from their company standpoints, the details of the companies that participated in the study were not revealed, either in the primary or secondary data

sources. Due to the well-knitted nature of the European leather industry, the number of companies that fit the criteria defined in the data collection section was also small, hence revealing too much detail about the companies that participated in the study may have broken anonymity/confidentiality agreements.

4. Harm to participants: this could be in the form of physical harm, emotional or mental harm such as loss of self-esteem, stress. While this particular research was highly unlikely to cause physical harm to research participants, participants were made aware of their right to quit the interview if they felt uncomfortable continuing with the research.

3.9 Data Analysis

This stage represents the final important step of the research process and sets the ground to use data collected to solve the research problem or answer research questions. It has often been stated by several authors (Neuman, 2014; Clarke and Braun, 2013; Bryman, 2012; Bryman and Bell, 2011; Cooper and Schindler, 2013) that qualitative data are more challenging to analyse than quantitative data because of the difficulty in making sense of the large volume of collected data. Collis and Hussey (2014), referencing Miles and Huberman, (1994) highlighted three steps to take in analysing qualitative data.

1. Data Reduction: this is an essential part of the analysis that allows the interpretation of data. It involves *"selection, discarding, simplifying, summarising and reorganising research data"*(Collis and Hussey, 2014, p.341).
2. Data Display: this involves the representation of data, using flow networks, matrices, charts and graphs to aid in drawing conclusions.
3. Drawing and validating conclusions.

In analysing case study research, Yin (2018) proposes four main strategies that can be followed: gradually working on your data bottom-up; developing a description of the case study; exploring probable rival explanations; and finally, following the theoretical propositions previously stated.

For this study, the last-mentioned strategy is applicable and will be discussed. More information about the other strategies can be found in Yin (2018). Yin (2018) noted that propositions assist in organising data analysis by directing the researcher to appropriate "contextual conditions" that are to be described". In this case, propositions were not made.

Instead, an initial conceptual framework was developed and was used to guide data analysis in order to either validate the initial conceptual framework or refine it.

Beneath the strategies are methods of qualitative data analysis which ranges from thematic analysis (the more popular method), interpretative phenomenological analysis, grounded theory and pattern-based discourse analysis, narrative analysis, content analysis (Clarke and Braun, 2013; Robinson, 2014). Based on the description (can be found in Clarke and Braun (2013) and the applicability of these methods, the thematic analysis proves to be the most appropriate to this research. Narrative analysis is suitable for organising stories; interpretive phenomenological analysis is usually used in analysing personal lived experiences (Smith and Osborn, 2015): and grounded theory involves developing theories only after data has been collected and analysed . These are not applicable for this research which followed a deductive-inductive approach to theory building.

According to Clarke and Braun (2017, p.297), *"thematic analysis (TA) is a method for identifying, analysing, and interpreting patterns of meaning ("themes") within qualitative data"*. It is popularly used in research that is based on the realist paradigm, applicable to single or multiple case study research with similar and diverse samples (Clarke and Braun, 2013). These characteristics make the method suitable for this research as it is a multiple case study research and follows a realist paradigm.

Clarke and Braun (2013), both authors usually credited for developing the thematic analysis method, suggested four main varieties of TA. These include Inductive TA (ITA), Theoretical TA (TTA), Experiential TA (ETA) and Constructionist TA (CTA). ITA is usually shaped by the researcher's views, discipline knowledge and epistemology; ETA draws on the experiences of the interviewees and how they make sense of the world; CTA emphasises topics construction (Clarke and Braun, 2013). Due to their characteristics, ITA, ETA and CTA are not applicable to this study as it is not shaped by the researcher or interviewees' views, nor is the creation of new topics.

In this research, TTA was applicable as it is steered by the presence of predefined theory and theoretical concepts in the literature review chapter. Braun and Clarke (2006); Nowell *et al.* (2017) and Maguire and Delahunt (2017), defined six necessary steps to follow in carrying out a thematic analysis of data, which were also followed in this study. These steps are represented in **Table 3-5** below.

Table 3-5: Steps taken during Thematic Analysis (Source: Nowell et al. (2017); Braun and Clarke, (2006)

Steps	Features
Familiarity with data	Data transcription (sample of interview transcripts found in Appendix 3) from interview audio tapes, unified notes taken with transcribed data, read through data transcripts (including secondary data) and understand the embedded ideas.
Codes initialisation	Established an inclusive and initial set of codes from the understanding of the data. Identified important sections of texts and attached them to themes (pre-defined initially from conceptual framework –deductive).
Search for themes	Organised codes into possible themes, attributing relevant collected data to relevant themes. New themes (not previously pre-conceived - inductive) that arise from data.
Themes review	Created thematic networks of the analysis.
Final theme definition	Final fine-tuning of the previously initiated themes so that they can succinctly describe the key findings from the data.
Report production	This stage discussed the connection between the research questions and reviewed literature to the interpretation and analysis of data to validate the initial conceptual framework. – direct quotes from participants are essential here to provide depth to the descriptive nature of coding and theming.

Guided by the initial conceptual framework, the pictorial representation of the second step (codes initialisation) and third step (search for codes) is presented in **Appendix 2**. These six steps were treated as flexible and iterative, as suggested by Braun and Clarke (2006), Clarke and Braun (2017) and Nowell *et al.* (2017). The development of codes and themes in this study were assisted by the initial conceptual framework. pilot case studies, records and the experiences from the "field". Coding assisted the researcher in understanding and simplifying the data features (Nowell *et al.*, 2017).

On the other hand, themes represent an entity that brings together units that are meaningless when standing alone to provide meaning to the aggregation of these units (Nowell *et al.*, 2017). For example, the occurrence of a social sustainability driver was codified while the group of

drivers that fall under social sustainability is the "theme" (sample of how the analysis was conducted is shown in the appendix section).

In thematic analysis, these "units" are the codes that are initialised in the second step in the table above and can form sub-themes, main themes or may not fall under any particular theme (Clarke and Braun, 2017). However, these codes, as advised by Nowell *et al.* (2017), should not be discarded as they may represent new findings and provide opportunities for future research.

3.9.1 Approach to Data Analysis and Coding

According to Saldana (2016), the coding approach to apply to a study usually depends on the methodological considerations, which includes the ontological, paradigmatic and epistemological positions taken by the researcher. Two types of coding cycles are usually engaged in order to analyse data to answer research questions and fulfil research objectives. These are the first and second cycle each possessing distinct attributed coding methods.

First cycle methods occur at the initial stage of the data coding and broadly includes coding methods such as grammatical methods, elemental methods, affective methods, literacy and language methods, exploratory methods, procedural methods and themeing of data (Saldana, 2017). **Table 3-6** shows the coding methods that relate to the broad categories previously mentioned.

Table 3-6: First Cycle Coding Methods and Sub-Methods (Source: Saldana, 2017)

First Cycle Coding Methods	Sub-coding methods
Grammatical	Attribute, Magnitude, Subcoding, Simultaneous.
Elemental	Structural, Descriptive, In Vivo, Process, Initial.
Affective	Emotional, Values, Versus, Evaluation.
Literacy and Language	Dramaturgical, Motif, Narrative, Verbal Exchange.
Exploratory	Holistic, Provisional, Hypothesis
Procedural	Protocol, Outline of Cultural Materials (OCM), Domain and Taxonomic, Causation
Themeing of data	

Details of these coding methods can be found in Saldana (2016). For this study, the attribute coding method was initially used. Attribute coding (a sub-coding method under grammatical coding) enables the researcher to understand the characteristics of research participants. This organisation usually relates to the details of the source of research data, either primary and/or secondary data. In relation to this study, important attributes identified and disclosed in the study include the position of supply chain actors, number of employees, interviewee position in the organisation, type of document (sustainability reports) analysed, and year of the report, aligning to consent form sand Non-Disclosure Agreements (NDAs) signed. Details of primary data **(Table 4-1)** and secondary data **(Table 4-2)** is presented in the results and discussion section.

Following the attribute coding, a themeing the data coding method was applied on both primary and secondary data to understand the data and assess the distinct attributes of each case relating to the within-case analysis, using defined themes from the initial conceptual framework. By themeing the data, codes are categorised to obtain an analytic reflection of the data. Themeing is more applicable to analysing data based on interviews and research participant related data. Themeing is also stated to be suitable for Computer-Assisted Qualitative Data Analysis (CAQDAS) like NVivo (used in this study) (Saldana, 2017). In this study, the core themes defined in the study (aligning with the conceptual framework and research objectives - deductive) include the roles of leather supply chain actors towards socially sustainable

sustainability implementation, social sustainability drivers, social sustainability indicators, social sustainability practices as shown in **Figure 3-2** below.

After the first cycle coding, second cycle coding was applied to the data analysis. Second Cycle coding requires analytical skills to classify, prioritise, synthesize, abstracting, conceptualising and theory building (Saldana, 2016). Second Cycle coding helps to reorganise and reanalyse codes/themes from the first cycle coding, in order to develop a rich sense of the theoretical categorisation and concepts of the data. Second cycle coding methods include pattern coding, focused, axial, theoretical, elaborate and longitudinal coding. In this study, theoretical coding is used. The theoretical coding assisted in assessing the relationship between the central themes of the research, in order to answer the research questions. An example of this stage is shown in **Figure 3-2** below.

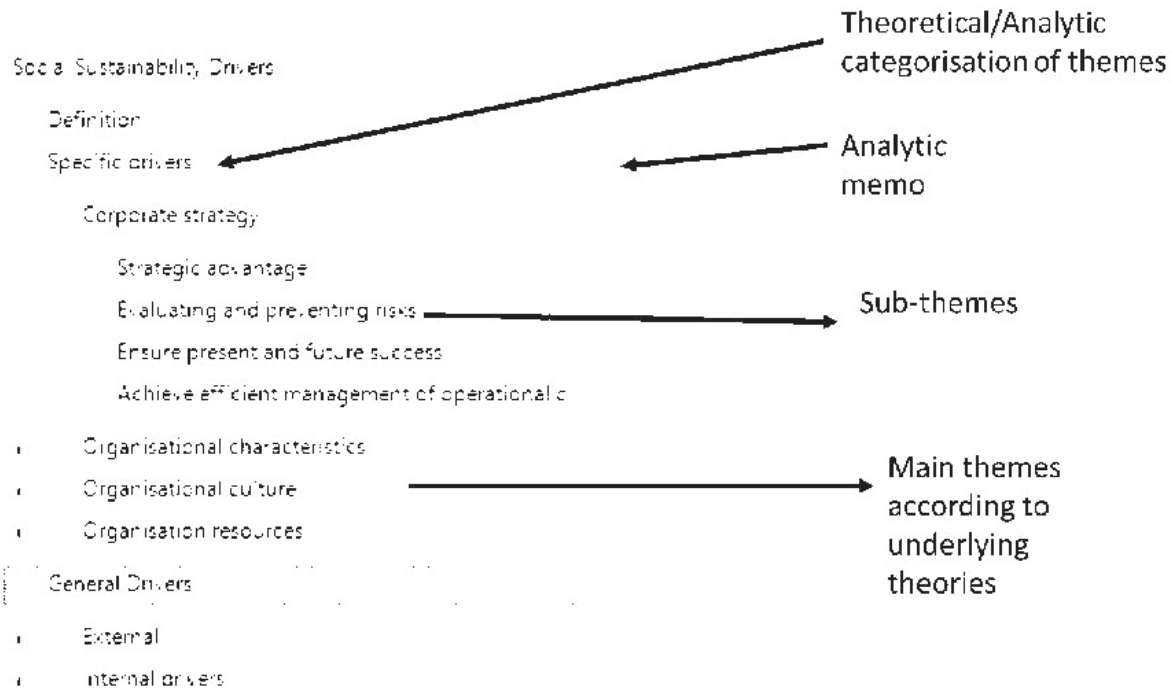


Figure 3-2: Sample of Theoretical Coding using NVivo (Source: Developed by Researcher)

In conclusion, a combination of coding methods (attribute coding, themeing the data, and theoretical coding) was used during the data analysis to obtain insights to fulfil research aims and objectives. It proved to be a suitable approach to avoid repetition and ensure a concise data analysis outcome.

3.10 Research Quality

For research to be useful and have the impact intended, appropriate methods have to be applied to the study. The culmination of these measures is what leads to the quality of research (research quality) (Patton, 2015). Traditionally, two major types of research quality exist reliability and validity. Reliability, according to Collis and Hussey (2014, p.343) entails the *"accuracy and precision of the measurement and absence of differences in the results if the research were repeated"*. On the other hand, validity is the *"extent to which measures and findings provide accurate representation of the things they are supposed to be describing"* (Easterby-Smith *et al.*, 2015, p.343). However, in recent times, several authors have called for a delineation between research quality tests for both qualitative and quantitative research.

Recent qualitative oriented researchers have indicated validity and reliability to be inclined towards quantitative research, not qualitative studies. Quality in qualitative research is about deducing if the research findings can be trusted (Korstjens and Moser, 2018; Nowell *et al.*, 2017; Welch and Piekkari, 2017). Hence, credibility, confirmability, transferability and dependability are used as quality criteria for qualitative research (Nowell *et al.*, 2017; Lincoln and Guba, 1985).

Credibility is regarded an equivalent to internal validity (Korstjens and Moser, 2018) and is defined as the trust that can be placed in the value of the research findings whilst accurately representing the views of the research participants (Nowell *et al.*, 2017). This criterion is met through techniques such as extended engagement with research participants, member checks, triangulation (previously discussed) and persistent observation (Korstjens and Moser, 2018).

Transferability is the degree to which findings obtained in a research can be applied to other research contexts. This is facilitated by the researcher through a more detailed description of the context surrounding the behaviour and experiences of the research participants (Nowell *et al.*, 2017; Korstjens and Moser, 2018). The reader of the research output is usually the judge of the degree of transferability the project possesses in relation to their own setup (Nowell *et al.*, 2017; Korstjens and Moser, 2018). Dependability involves making sure that all changes, experiences, and research process are well documented, while confirmability is the extent to which interpretation of the results are taken from the data collected from research participants and not the researcher's own thoughts (Nowell *et al.*, 2017).

Dependability and confirmability of research are facilitated by what is called the Audit trail – which provides a complete record of theoretical, methodical decisions and how/why decisions

were made during the research (Nowell *et al.*, 2017; Clarke and Braun, 2013). The criteria discussed above were met in this research, as shown in **Table 3-7.**

Table 3-7: Techniques used to ensure Qualitative Research Criteria in the Study. (Source:(Nowell et al., 2017; Tracy, 2010))

Credibility	Transferability	Dependability and Confirmability
a. Extended engagement with interviewees: during the interview process, the interviewees were encouraged to provide examples where necessary to support their answers. E.g., How does your company implement social sustainability practices? Can you give examples of the practices? b. Triangulation (earlier discussed) c. Interviewee checks: the transcripts of the interviews were sent back to the interviewees to obtain feedback and correct any misinterpretations.	Discussed under the Generalisation section	Minutes emerging from the researcher's meetings with supervisors were well documented over the entire period of the project. The minutes contained the decisions made during the research process and the rationale for those decisions.

3.10.1 Generalisation

Easterby-Smith *et al.* (2015, p.335) define generalisability as the *"extent to which observations or theories derived in one context can be applicable to other contexts"*. Traditionally, qualitative research cannot be generalised, at least when it is in the context of statistical-probabilistic generalisation (Yin, 2018). Smith (2018) provided four types of generalisability

that could be employed for qualitative research - naturalistic generalisation, transferability, analytical generalisability, and intersectional generalisability. For more readings on these types of generalisations, refer to Smith (2018).

Transferability, briefly described above, is also referred to as a form of generalisability (Nowell *et al.*, 2017; Smith, 2018) or inferential generalisability (Ritchie *et al.*, 2013) refers to the degree to which results from a study can be transferred to other contexts (Korstjens and Moser, 2018). Transferability is facilitated by a detailed description of the research participants and processes so that future researchers and readers can judge if the results of the research can be transferable to their own context (Korstjens and Moser, 2018). Consequently, this study provided a description of the leather supply chain and its actors, as well as providing information on the leather companies that are the sub-unit of analysis of the multiple case study. Similar industrial contexts from which the results of this research could be transfered include the textile, fashion, apparel and footwear industries.

The second form of generalisability applicable to this research is analytic generalisability (Carminati, 2018; Yin, 2018; Smith, 2018). In a case study research, analytic generalisations are usually used either in single or multiple cases (Carminati, 2018), and this nature of generalisations do not involve the use of statistics as obtained in statistical generalisations; rather, it seeks to make argumentative claims that may be based on verifying, modifying, rejecting or furthering theoretical concepts that were represented during the case study design or novel concepts that emerged at the conclusion of the study (Yin, 2018). In this study, analytic generalisability was applicable to further theoretical concepts of institutional theory and stakeholder theory into social sustainability in a supply chain context.

3.11 Summary

This chapter has discussed the epistemology, approach and methods that were employed to achieve the aim and objectives of this research. Using the qualitative research design that employs a multiple case study approach was justified by drawing from experiences from previous related studies and the nature of the research questions in this study. The summary of this chapter is presented in **Table 3-8** below.

Table 3-8: Summary of Research Methodology Chapter (Source: Developed by Researcher)

Attribute	Selected choices
Epistemological position	Critical realism
Ontological Position	Subjectivism
Research Approach	Abduction
Research Purpose	Exploratory research
Research Method	Qualitative method – using Multiple Case study (4 cases)
Unit of Analysis	Leather Supply chain- Tanneries, manufacturers, wholesalers, retailers.
Data collection	• Sampling techniques – purposive & snowball sampling method • Primary Data collection – 20 semi-structured interviews • Secondary Data collection company annual reports, sustainability reports (9 documents). • Time Horizon – Cross-sectional • Pilot Studies – 2 pilot interviews • Research Context: The EU leather industry
Method of Data Analysis	Thematic analysis
Research Quality Criteria	Credibility, transferability dependability, confirmability
Generalisability	Analytic generalisability

4 Research Findings and Discussion

This chapter presents the findings from the analysis of primary data (semi-structured interviews) and secondary data (sustainability reports) to explore the research topic, aim, and objectives. The results and following discussions seek to achieve the study's aim, which is to explore social sustainability drivers and their relationship with social sustainability practices and indicators in the European leather supply chain through the stakeholder and institutional theory lens. The objectives to fulfil this aim are to:

1. Explore the key social sustainability practices in the leather supply chain.
2. Investigate relevant indicators used to assess social sustainability performance in the leather supply chain.
3. Explore the nature of the interaction between key actors towards a socially sustainable leather supply chain.
4. Empirically determine the key social sustainability drivers that influence leather supply chain actors towards implementing social sustainability practices and indicators.
5. Develop a theoretical and empirically supported framework establishing the relationship between social sustainability drivers, practices and sustainability indicators.

This section begins with general information about the interviewees, participating companies and the position of participating employees in the leather SC. This is followed by key findings relating to stakeholder participation in driving social sustainability in key SC stages and an exploration of key social sustainability practices in the leather SC, indicators, drivers, and their inter-relationship. The data collection and analysis were guided by the literature review's initial conceptual framework (see **Figure 2-14**).

Data collected were analysed on a "within cases" and "cross cases" basis as defined in the methodology section. Within-case analysis assisted in understanding the characteristics and unique roles key leather SC actors play in promoting social sustainability and its implementation in the supply chain. Within case analysis also enabled the exploration of the differences and similarities in social sustainability practices, drivers and indicators among supply chain actors, The cross-case analysis aimed to integrate the findings from the within-case analysis to fulfil the research objectives.

4.1 Key Findings on Data Collection Process and Considerations Made

This section provides comprehensive information about the data collection process, including the sources of information used in the study. Semi-structured interviews were conducted in 2019/2020 with senior managers in respective companies that held positions that could give the richest level of information to answer the interview questions, as shown in **Table 4-1**. It is anticipated that the information provided in this section can guide future researchers in the field of social sustainability and the leather industry when carrying out similar research.

Table 4-1: Details of Interview Participants (Source: Developed by Researcher)

Supply chain Actors	Number of employees	Interviewees position	Company Coding reference
Tannery 1	1000+	Technical Director	Tannery 1, TD
		Sustainability Director	Tannery 1, SID
Tannery 2	10000+	Sustainability Manager	Tannery 2, PMS
Tannery 3	1000+	Sustainability Director	Tannery 3, GDS
Tannery 4	2000+	Manager	Tannery 4, RM
Chemicals 1	10000+	Head of Corporate Sustainability	Chemicals 1, HCS
		Vice President	Chemicals 1, VP
Chemical 2	2000+	Director of Research and Development	Chemicals 2, GDRD
		Sustainability Director	Chemicals 2, GDS
Chemical 3	500+	Head of Research	Chemicals 3, HR
Chemical 4	500+	Sales Director	Chemicals 4, SD
		Marketing Manager	Chemicals 4, MM
Chemical 5	2000+	ESG Director	Chemicals 5, ESGD
Manufacturing/Retail 1	5000+	Sustainability Director	MANRET 1, GSD
Manufacturing/Retail 2	1000+	Sustainability Manager	MANRET 2, GSM
Manufacturing/Retail 3	10000+	Global Head of Materials	MANRET 3, GHM
Leather Association 1	10+	Manager	LA 1, M
Leather Association 2	11+	Sustainability Lead	LA 2, SL
Leather Association 3	10+	Director	LA 3, D
Leather Association 4	10+	Technical Coordinator	LA 4, TC

Primary and Secondary data was collected from key leather supply chain actors: Tanneries, leather chemical suppliers (both related to the upstream leather supply chain), manufacturers and retailers (both related to the downstream leather supply chain). Leather-related associations and certification/auditing bodies were also interviewed to obtain an overarching view on social sustainability in the leather industry: highlighting data source triangulation and enhancing data credibility (Heale and Forbes, 2013; Noble and Heale, 2019). However, during and after the interview process, it was clear that certifying organisations play a significant role in the leather industry to drive sustainability among leather supply chain actors. Hence, it was necessary to include the certifying organisations as actors in the leather supply chain (not just a source of data triangulation and credibility). Hence, the four leather supply chain actors that participated in the study include: tanneries, leather chemical suppliers (both related to the upstream leather supply chain), manufacturers and retailers (both related to the downstream leather supply chain) and leather certification organisation/association. This is further discussed in Section **4.2.4**

Top-level employees and senior-level managers were prioritised as sources of information due to the degree of sustainability-related information they possess and the significant role they play in sustainability implementation in their organisations and the global leather industry (Giunipero *et al.*, 2012). They were also industry experts in the subject area, which allowed for the collection of rich data. Using an interview protocol designed for the study **(see protocol in Appendix 1)**, data was collected through interviews that took an average of 40 minutes and were conducted through online and face-to-face conversations.

Although necessary quality and sufficient data were obtained from the research participants (who held Executive Management and/or Sustainability Manager related positions), it was observed that Human Resource (HR) Managers could also serve as reliable repositories of data pertaining to social sustainability. The number of interviewees in each company ranged from 1 to 2, depending on the availability of relevant employees who were capable of providing useful data for the research.

In the research methodology chapter (Chapter 3), it was indicated that Europe was the main context of the research and leather-related companies outside of Europe and with close affiliation to the European leather industry could be interviewed to triangulate data and increase credibility. Hence, an association from Brazil was featured after realising they had affiliations with the European leather industry, especially in Italy. This association is also a subject matter

specialist in the area of sustainability being studied. Similarly, a global leather manufacturing company based in the USA was incorporated into the research due to the significant footprint the company has in and around Europe. These two companies were suggested to the researcher by primary participants in the study, following the snowball sampling method.

Furthermore, obtaining social sustainability information during the interviews with research participants was, at times, challenging. This was perceived to be due to the dominant environmental sustainability orientation of the leather industry, which led to interviewees pivoting responses to interview questions towards the environmental aspects.

In presenting the interview participants' details in **Table 4-1**, it was necessary not to state the country in which the company's headquarters were located. Due to the few numbers of companies large enough in the industry to participate in the study, combined with the highly networked nature of the global leather community, disclosing such information could have made it possible to identify the participants and risk the study being in breach of the anonymity agreement in place with interview participants.

It was also observed that research participants in the upstream supply chain were easier to reach than those in the downstream leather supply chain. This may be due to several reasons. Upstream actors like tanneries and chemical suppliers (that provide raw materials to the tanneries, as shown in **Figure 4-1** below) are subject to scrutiny by NGOs and critics of the leather industry who conceive that the tannery industry is heavily polluting (Qiang *et al.*, 2018). Hence, participation in studies like this one may serve to assist in alleviating those concerns.

In the downstream leather supply chain, it was observed that in addition to consent forms that were presented to all interview participants before commencement of interviews, some of the interview participants in the downstream leather sectors also requested Non-Disclosure Agreements (NDAs) to be signed between their respective companies and the academic institution. This NDA condition did not take place from upstream leather supply chain actors. Overall, these measures ensured that the research and data collection process was ethically conducted. This information could be useful for future researchers on what to expect when embarking on data collection in the leather supply chain.

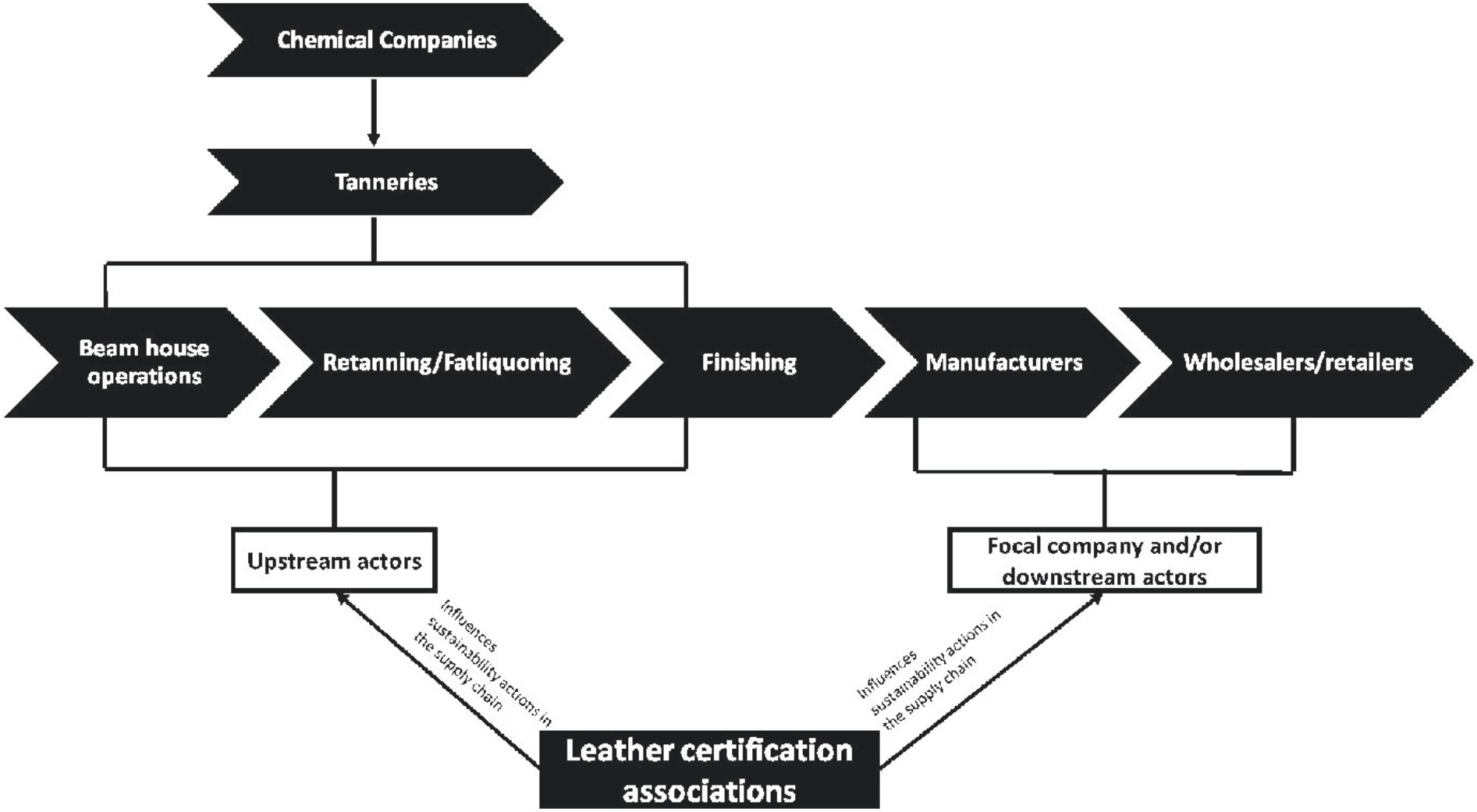


Figure 4-1: Showing Leather Supply Chain Actors that participated in the Study (Source: Developed by Researcher)

In several instances, the information received from interview participants regarding the interview questions was uniform (discussed later), suggesting a well-knitted industry with unwritten common goals and a high circulation of information amongst crucial members.

Secondary data used comprised of sustainability reports, CSR reports, or annual reports from companies that publish their sustainability performances, as shown in **Table 4-2** below.

Table 4-2: Details of Secondary Data Sources (Source: Developed by Researcher)

--	Company Coding reference	Type of document	Year of report
Tannery	Tannery A	Sustainability report	2018
	Tannery B	Sustainability report	2019
Chemical suppliers	Chemical A	CSR report	2018
	Chemical B	CSR report	2018
	Chemical C	Corporate responsibility & Sustainability report	2018
Manufacturing/Retailer	MANRET A	CSR report	2019
	MANRET B	Annual report	2019
	MANRET C	Non-financial performance statement	2018
	MANRET D	Social responsibility report	2017

These reports were collected from tanneries, chemical companies that supply products to the leather industry, leather manufacturers and retailers. It should be noted that the "company coding reference" and underlying companies in the primary (see **Table 4-1**) and secondary data (see **Table 4-2**) are not the same, i.e., Tannery 1 in **Table 4-1** is not the same as Tannery A in **Table 4-2**. This was done to further anonymise the details of the companies interviewed and ensure anonymity agreement with interviewed companies is preserved.

It was observed that the information obtained from interviewees (primary) and reports (secondary) complemented each other, thereby providing an avenue to deeply understand the research problem and a source of method triangulation. The complementary nature of both data sources also contributes to enhancing data credibility (Kobayashi, 2020). Apart from using secondary data to complement primary data, the former (on its own) proved to be a source of rich data that explains the linkage between sustainability drivers and practices. Some potential interviewees (not necessarily eventual interviewees) also directed the researcher to use the sustainability reports of their respective company.

An observation during data collection was the difference in the understanding of sustainability drivers between literature and practice. In the literature, sustainability drivers were referred to as sustainability enablers, sustainability practices, or motivating factors (drivers) that influence sustainability implementation. On the industry side, sustainability drivers were seen as motivating factors or influencing factors rather than enablers (which could usually be policies or tools or personnel that makes sustainability implementation possible).

This lack of clarity on the definition of drivers in the literature meant it was necessary to understand the meaning of drivers from the viewpoint of leather supply chain actors and companies to develop the industry perspectives and resulting theoretical framework. Therefore, any generalisation or transferability of the study's findings to other industries on social sustainability drivers and their relationship to practices and indicators should be approached cautiously, as interpretation and understanding of key terms might influence research outcomes. Another key finding in this study was the uniformity of practices in the tanneries, manufacturing and chemical sectors of the industry. Nevertheless, peculiarities exist, which will be discussed in the "within-case" section of this report.

4.2 Within Case Analysis of Leather Supply Chain Actors

Four cases (tanneries, manufacturers/retailers, chemical companies and leather related associations/certification organisations) were under study in this research, representing the key actors in ensuring sustainability implementation across the leather SC. The peculiarities in terms of their role in sustainability and social implementation are discussed. This section presents the findings from the data analysis and addresses the third research objective, "explore the nature of the interaction between key leather SC actors towards a socially sustainable leather SC."

4.2.1 CASE 1: Tanneries

The tanneries that participated in the study were large, i.e., with more than 500 employees, and they fit into the selection criteria (defined in the methodology section) of being companies having a designated or related role for sustainability managers and are clearly showing their social sustainability endeavours (either through sustainability reports or websites). The tanneries demonstrated that they play a significant role in the European leather supply chain, conforming to literature (Brugnoli *et al.*, 2013). One of these roles is connecting upstream (usually hide suppliers, abattoirs) and downstream SC actors (manufacturers, retailers) to

ensure the leather industry actors uphold ethical operating standards. This was highlighted by one of the tannery participants:

"We take our downstream supply chain to our upstream suppliers so that they can experience if our claims about those suppliers (hide suppliers, abattoirs, animal farms) are true. We are engaging the whole supply chain" (Tannery 1, SID)

The tanneries reported that they communicate requirements (which could be a product or sustainability-related or animal-welfare related) from downstream actors to further upstream actors, leading to a feedback information loop in the supply chain.

Also, tanneries are seen to relate with hide suppliers in the form of visitations to ensure they (the hide suppliers) are as ethical and responsible as they can be.

"...And our procurement team put a lot of effort into knowing all these suppliers. In evaluating them, we have very strict criteria, which our suppliers need to fulfil. We evaluate them on a regular basis; we visit them. I think we visit all our suppliers. We call it a visit. We could also call it audit..., and we visit them at least once in two years." (Tannery 2, PMS)

Tanneries are shown to communicate sustainability requirements in procurement policies to suppliers and could deselect suppliers that do not comply (or willing to comply) to required standards over time, as shown in evidence below:

"We also have a supplier procurement policy which includes green requirements. The suppliers need to demonstrate that what we are buying is the greenest, i.e., they are as responsible as possible. We also deselect suppliers or contractors if they don't perform. We keep moving the bar upwards." (Tannery 1, SID)

Due to the size of the tanneries that participated in this study, generalising the large tanneries' findings to smaller tanneries should be approached with caution. This is reflected in Śmiechowski and Lament (2017)'s findings that indicated that large tanneries usually have the resources to detail their roles and sustainability actions in sustainability reports. Smaller tanneries may not produce sustainability reports due to the high cost of such endeavour, although failure to produce reports should not translate to a lack of sustainability activities.

Tanneries are also reported to have a close relationship with their chemical suppliers in terms of obtaining necessary instructions and training on safe chemical use and receiving employees from chemical suppliers to educate them on the business of working in a tannery. This relationship between tanneries and chemical suppliers is further explored in the next section below.

4.2.2 CASE 2: Chemical Suppliers

Chemical suppliers that participated in the study were either leather industry facing or have departments within their companies that serve the leather industry. Because of the large size of the companies in the study, some of them are publicly listed on related stock exchanges. Hence, they are found to be public-facing, meaning the impact of their operations can be increasingly scrutinised by the public, NGOs, and legislative bodies (Grappi *et al.*, 2017; Bendell, 2017).

Findings suggest that while social sustainability is perceived to be important, there appears to be a disparity amongst chemical companies regarding the "differentiating" nature of social sustainability to their business. Compared to manufacturers/retailers and tanneries who perceive social sustainability practices as a differentiating factor from their competitors (i.e., it is a source of competitive advantage), some companies in the leather chemical industry differ in opinion concerning the competitive advantage derived from having socially sustainable operations. For some, social sustainability is deemed important and serves as a differentiating factor, as seen below by a company representative, when asked if social sustainability implementation was a competitive advantage:

> *"...Yeah, I would say... maybe my colleague has responded to that too. But from my perspective [of the company], I would say, first of all, it's important for our reputation, that when we sell products to someone, it may be a leather company, or a tanner, or any other company, that they carefully handle these substances." (Chemicals 1, HCS)*

On the other hand, other chemical companies reported that they perceive social sustainability activities as important and necessary. Because of this view, they do not perceive it as a differentiating factor from their competitors:

> *"Social responsibility on the chemical supplier is not a differentiating factor; it is a given. It is a must. Maybe for some, it's not a must, but for us, it is a given. It is not a differentiating factor. I cannot differentiate from my competitors by having (at least, right now) a difference based on social responsibility or not. I wish it could be, but right now, it's not recognised." (Chemicals 3, HR)*

These findings present useful insights into the concept of social sustainability and could also offer a reason (i.e., social sustainability being seen as a normal thing to do) behind its under-exploration in the industry at large. Although the above disparity exists, interview participants agree that their sector performs a unique function regarding social sustainability, which is about educating the SC, especially the tanneries. Evidence of this is shown below:

"Education, I think Education in some ways, collaboration, we also collaborate with some of our competitors in some matters, for example, safe use of chemicals but it is essentially about Education and taking people on the hands and showing them why it is important to do things differently. And that means you have to trust each other and really collaborate to make things better, and sometimes that means a chemical is a bit more expensive but later on, you will make savings in your wastewater treatment. So, you can only have these kinds of discussions if you don't look only at the price of the leather article after you have decently dealt with the treatment of wastewater." (Chemicals 2, GDS)

However, this education to tanneries or customers is perceived as the key differentiating factor for chemical companies in the industry.

"The differentiating factor is what kind of product I am offering. That we give training to the tanneries, to the workers there [and teach them] how to deal with chemicals in a safe way, how to apply chemicals in the correct way to raise awareness for good chemical management." (Chemicals 3, HR)

Additionally, an interviewee from one of the tanneries corroborated the educational role of chemical suppliers by saying:

"They know what we are looking at, reducing the chemicals we are using, improve uptake, put lesser through effluents, we are making sure we use the right and safest chemicals for our employees, we do a lot of training with our chemical suppliers, send a lot of people to chemical suppliers for training" (Tannery 1, TD)

This suggests that the tannery-chemical suppliers usually favour two key practices that can be inter-related: Education and Health & Safety. That some chemical companies do not perceive social sustainability as a competitive advantage or differentiating factor from their competitors does not necessarily contradict the wider held view in the literature. Longoni and Cagliano (2015) found that companies with social sustainability priorities usually derive competitive advantage in the short and long term. Hence, because some companies in the chemical industry do not perceive the implementation of social sustainability as a competitive advantage, does not mean it is not.

4.2.3 CASE 3: Manufacturers/Retailers

The merged "Manufacturers/Retailers" resulted from observations during the data collection phase. These two actors were initially separated in the methodology section but had to be grouped during the data collection/analysis phase because it was discovered that the manufacturers also had substantial retail operations in conjunction with their leather manufacturing operations.

They are usually seen as the SC's focal companies and are both OEM and end consumer-focused. The companies interviewed produce and market leather related products like belts, bags, leather accessories, leather car seats etc. Because they are focal companies, they are found to take a crucial role in developing the leather SC through activities such as auditing the smaller suppliers who may not have the resources to conduct sustainability assessments. They are seen to support their suppliers to improve their operations through investments in achieving certified status like the Leather Working Group Gold to Bronze standards. They also take part significantly in supplier development activities, especially with tanneries they source leather materials from, as seen below:

"We want our tanneries to continue their amazing work in providing us with beautiful leather. But we need a little bit more from them. The Italian tannery industry is so old school that actually all the investment that we can help to get them on their way is positive for the industry, not just for us as a brand." (MANRET 2, GHM)

Overall, several of these manufacturers reported that they are more interested in contributing to the development of their suppliers and supply chain instead of forcing requirements on their suppliers. This conforms with the previous study by Morais and Silvestre (2018), which noted that focal companies tend to engage with other SC actors to solve social issues actively. This usually enables the focal companies to improve their social performance (Sancha *et al.*, 2016), reduce SC risks and boost reputation (Mani and Gunasekaran, 2018b).

4.2.4 CASE 4: Associations and Certifying/Auditing Organisations

Leather-related associations are reported to perform an overseeing function in the industry, supplying sustainability and responsibility assessments, issuing certifications, testing raw materials, chemicals and products for safety, as well as providing an avenue for SC actors to participate in roundtable sessions and conferences. These roundtable sessions usually bring together key actors in the industry to discuss new research as well as technological and managerial advancements that could be related to sustainability.

This was confirmed by one of the manufacturing/retail companies by saying:

"So, we are very productive in the leather working group which involves our competitors. So that is a very good forum for the industry to come together. And I would say it's a very good example. Through my own contacts and through my own network, I speak to people in my role or similar roles in competition. And I would say that's just done on a general social and business level. I would say the leather working group is a very proactive industry forum where brands can use that power collectively to improve the industry." (MANRET 3, GIIM)

These roundtable sessions and level of interaction among competitors and actors could explain the observed similarity in the drivers for social sustainability actions and practices (which will be discussed in the sections ahead). Through the roundtable sessions, a number of interview participants noted that their companies could be collaborators rather than competitors, especially when they have the same suppliers. Instead of giving the said suppliers different recommendations/specifications/instructions on how to improve their sustainability performance, they collaborate with each other so as not to confuse the supplier. They collaborate to assist the supplier as much as possible so as to improve the supply chain.

Furthermore, the associations/auditing organisations appear to present a strong influence on the progress of sustainability as a whole and even the social aspect precisely. This notion was acknowledged as a general consensus by the research participants, who noted that social sustainability discussion and assessments could be substantially improved if the auditing organisations integrate the social aspect into existing sustainability assessment tools, which are currently environment-oriented. More evidence of the importance of the associations is attributed to how progress is measured by the companies' level of participation in related association activities and certifications.

"Well, I think the biggest indicator of progress would be the Leather Working Group, and the participation in the Leather Working Group" (LA 2, SL)

The potential role that leather associations/certification bodies play in promoting social sustainability in the leather supply chain is similar to what the Fair-trade organisation does in supply chains that they influence - usually in the agricultural sector (Moxham and Kauppi, 2014). As a result, leveraging the evaluative, overseeing and "certifying" role and the prestige given to these firms may be necessary if progress on social sustainability is to be made in the leather industry.

4.2.5 Relationship between Leather Supply Chain Actors in addressing Social Sustainability

It was found that larger companies in any of the SC tiers take leadership roles in ensuring their suppliers adhere to social sustainability practices. The roles identified in the table below can be broadly regarded as supplier development (SD) related and are suggested by participants to be beneficial in several ways to the SS's advancement in the SC. First, they (the larger companies) help improve the leather SC by helping smaller players better understand the importance of sustainable operations and being more socially responsible, without considerable cost outlays.

"And so, we would much rather work with a factory to improve those situations and show them that being socially sustainable is not a cost driver, and it doesn't mean that you need to increase your costs in order to have a worker wellbeing program" (MANRET 2, GSD)

Secondly, being socially sustainable and auditing performance is a way to encourage other suppliers to improve sustainability activities and operations, noting that it can increase negotiating power in procurement activities. For example:

"...So, we're able to have more of the percentage of our raw materials certified, we can then convert that to talking to our customers about it if we want to. And it helps us negotiate with other tanneries as well. So, if we can say to tannery B that tannery A is silver-rated, and you (tannery B) is not audited, but you (tannery B) are charging more, and then it helps us a little bit with some negotiations" (MANRET 2, GSM)

Explicitly, it is noted by participants that leveraging the "certification" argument to suppliers encourages unaudited tanners to improve social sustainability performance and work towards getting audited and certified for superior performance.

Thirdly, the relationship derived from supplier development (SD) activities can help actors understand each other's issues and ultimately help solve these identified problems, reported below:

"[We really think] engaging with our customers, engaging with the customers of our customers are what we really think is important. We are trying to understand each other's challenges because sometimes, a customer of ours might have a challenge which we don't know and sometimes there is a challenge behind the challenge. You can only know those challenges if you have a deep connection, and you really want to understand the challenge". (Chemicals 2, GDS).

The above conforms with and aligns with findings from Kovacs (2008), which contended that there is a necessity for standards that foster communication and monitoring in supply chains,

as they can assist in solving deeper supply chain issues relating to sustainability adoption and implementation.

Broadly, the roles key supply chain actors perform in ensuring social sustainability implementation is presented in **Table 4-3.**

Table 4-3: Roles of Supply Chain Actors in Ensuring Sustainability (Source: Developed by Researcher)

Supply chain actors	Role in ensuring sustainability implementation
Tanneries	1. Connecting upstream and downstream SC actors through information sharing. 2. Participate in supplier development activities. 3. Visiting upstream suppliers. 4. Conducting supplier audits.
Chemicals	1. Participate in supplier development activities. 2. Educating tanneries 3. Conducting supplier audits
Manufacturing/Retail	1. Participate in supplier development activities. 2. Visiting upstream suppliers 3. Conducting supplier audits
Association/Auditing organisations	1. Providing assessment/audits for measuring the sustainability performance of companies. 2. Issuance of sustainability certifications 3. Organising events to bring together stakeholders to discuss industry issues

Chemical companies and tanneries were seen to have a two-way relationship with tanneries regarding each other's employees' education for different reasons. Chemical companies indicated that they train employees from tanneries they supply and handle and apply chemicals. On the other hand, tanneries can train employees from chemical companies to understand what it means to work in a tannery. Evidence of this is shown below:

"That we give training to the tanneries, to the workers there, how to deal with chemicals in a safe way, how to apply chemicals in the correct way to raise awareness for good chemical management." (Chemical 3, HR)

"Equally, we sometimes have some of our chemical suppliers send people here for training. Usually, when they've got someone young who's new into the business, who works solely for a chemical supplier. we'll give them some experience of what it is like to work in a tannery, and we'll put them through a process." (Tannery 1, TD)

It was also found that larger actors (especially the manufacturer/retailers) who have similar smaller supply chain partners collaborate with each other instead of competing (in specific areas), to assist the smaller players (like some tanneries) who are trying to improve their

operations. Although the larger actors play a leadership role in assisting smaller suppliers that may not have resources to conduct internal sustainability assessments, several of the participants suggested that there is a need for the certification/auditing bodies in the leather industry to integrate aspects of social sustainability assessments into the industry's popular environmental audit tool, due to its impact and recognition. Evidence of this is seen in the comment below:

"I gave a presentation together with a colleague in 2014 where we said that tanneries need to have the safety and health pronounced in the LWG" (Chemicals 2, GDS)

Overall, the nature of these supplier development activities in the leather supply chain supports findings in a recent study by Yawar and Seuring (2018) that identified supplier assessments, technical and financial investments, logistics integration represent key supplier relationship activities that can assist in the development of suppliers' capabilities to improve environmental and socio-economic performances. Additionally, the researcher opines that supplier development can be regarded as an SC based social sustainability practice since it deals with relationships between cross-sections of supply chain actors and companies towards defined goals. On establishing the relationships and roles of different key actors, it can be concluded that there exists a well-knitted industry with seemingly strong supplier development activities that can be beneficial to the development of social sustainability capabilities in the leather supply chain.

The rest of the report presents the findings and discussion of the key themes in the initial conceptual framework to fulfil the rest of the research objectives. The cross-case analysis section also presents the practices, indicators and drivers of social sustainability.

4.3 Cross Case Analysis of Leather Supply Chain Actors

The section presents the findings related to research objectives 1, 2, 4 and 5 highlighted on Page 4. This section expands on the within-case analysis to explain the roles of and relationship between leather supply chain actors in addressing social sustainability in the supply chain.

The interpretation and understanding of sustainability and social sustainability by the SC actors are presented to set a background for further results and discussions, followed by the social sustainability practices, indicators, drivers and the inter-relationship between them. The initial conceptual framework developed through the literature review is used to guide the presentation of findings and resulting discussions.

4.3.1 Interpretation of Sustainability in the Leather Industry

According to research participants, the definition of sustainability still reflects a divergence of views amongst industry players. For some, sustainability as a concept, when used alone, could be misinterpreted to refer to the environment while neglecting the other two dimensions. To avoid this, some participants explained that both sustainability and CSR are used together in their respective company to form the term *"corporate responsibility and sustainability"* (CRS). As evidence, a respondent in the manufacturing/retail category, when asked if CSR was used in the same way as sustainability, replied:

"Yeah, it's interesting that different terminologies have evolved over the years. Yeah, we have had a CSR programme for so long, dating back to the 1990s, the early 1990s. And it's always been called CSR. We continue here to call it the CSR function, and that is the name of the department that I manage.

My title is more tied to the more current thinking and terminology and aligns with how the parent company is structuring the function across the organisation. So, I do personally think that sustainability is too narrow of a word. I think in its true definition, it does encompass social and economic viability, as well as environmental responsibility, but most people only think of that word in the environmental sense, and I think it's being used for in that way as well as the results. So, I prefer to use a broader definition still.

Despite my title being very limited in nature, but you know, our parent organisation is also grappling with that as well. And they had actually just shifted and changed the name of their function from sustainability to "sustainability and responsibility" to make sure that it was clear to any stakeholder that this goes beyond an environmental conversation." (MANRET 1, GSD)

On the other hand, when asked the same question, another participant expressed a different view, stating that both terms should not be used interchangeably. The participant suggested that sustainability is the correct term to use, not CSR, as seen below:

"For some organisations, they do more of CSR and relate it to sustainability but mixing sustainability with CSR is not good enough." (Tannery 1, SID)

"I hope that CSR is not used and referred to anymore because that's more of a business term than an actual sustainability term..." (MANRET 2, GSM)

On the other hand, some companies believe both concepts are the same and can be used similarly, as seen below:

"For us, it is the same. For us, sustainability is being sustainable, and you can only be sustainable if you do the right things for the environment, for the people and the planet and for the profit. If you do all things right and you don't make a profit, you are not sustainable. And for us, the naming we use internally is CSR." (Chemicals 2, GDS)

These findings conform to the literature on the diversity of meanings of the sustainability

concept, with no unique definition to agree on (Hannon and Callaghan, 2011). However, this could have implications for the leather industry. First, it reflects the disparity in understanding the term "sustainability" in academia, organisations, stakeholders and the general public. While some leather supply chain actors have attempted to "draw a line" between both concepts (CSR and Sustainability), some show flexibility with the synonymous use of both terms.

Practically, it can be argued that a unique and acceptable definition or term used in the leather industry may not be necessary. Instead, an adaptation of a term (either CSR or Corporate Responsibility Sustainability or Sustainability) to capture all dimensions could be beneficial, based on the consensus of understanding between the company and its key stakeholders. Secondly, the interpretations could also prove to have implications for other aspects of sustainability beyond the environment because an inadequate or one-sided interpretation could lead to partial/lack of implementation of other dimensions (s) (Engert and Baumgartner, 2016; Lozano and Haartman, 2017).

The next sections discuss the findings relating to social sustainability, drivers, indicators and practices, in the leather supply chain.

4.3.2 Social Sustainability and its Meaning in the Leather Industry

Participants' responses and sustainability reports suggest a significantly high level of understanding of what social sustainability means amongst leather SC actors. Some of the answers when asked the definition of social sustainability include:

"For us, it means people working with our chemicals should be able to do that safe, so they should know how they work with our chemicals. For us, it's a drive also to make the chemicals as safe as possible. It also means our chemicals should not have a negative influence later in the supply chain, for instance, emission in the final leather article. Also, for the consumer, it should be safe". (Chemical 2, GDS).

Another definition from another participant below states:

"Social sustainability means that people have a certain level of wealth: that wealth is equally distributed, that there is equality, that people have access to things, to property, to education

resources, that they have access to remediation when it comes to their rights violated, that people stay healthy and unharmed by other humans or industrial activity and that they have freedom of choice and freedom to develop their own destiny in a way that is just and fair. So, this is what I think is social sustainability." (Chemicals 1, HCS)

From both comments above, themes such as education, fairness and justice, equality, health, safety and freedom of expression emerge. From the literature, the approach to defining social

sustainability definitions varies. While some authors opt to provide an outright definition to the concept (Rajak and Vinodh, 2015; Littig and Griessler, 2005), some authors argue it is more useful to define the core themes - as done above (Colantonio, 2009; Landorf, 2011). However, several of the supply chain actors agree that the topic of social sustainability implementation is not discussed as frequently as the other dimensions due to the perceived "normality" of implementing related practices:

"I would say, the social dimension is more or less taken for granted that we do it. Okay, we have it but unfortunately, we talk less about this than we talk about environmental responsibility. It's because we think it's normal that we do this. We don't think that we have to talk about it. But we [are now] increasingly understanding that it's important to talk about it." (Tannery 2, PMS)

Furthermore, interviewees noted that certification/auditing organisations like the Leather Working Group could play a significant role in ensuring that social sustainability discussions and assessments gain traction among supply chain actors in the industry. Evidence of this can be seen in interviewee comments:

"So I think basically, a lot of brands would like Leather Working Groups to do a social aspect as well, but the social side of it is not as scientific and different brands will have a different perception of what they deem to be acceptable or not, but if the industry could agree on a common social network of auditing programs, then you would be in a very similar place to the environmental program that the Leather Working Group offers."(MANRET 3. GHM)

Previous research in the leather industry and other contexts have usually documented and emphasised the under-exploration of social sustainability compared to economic and social sustainability, citing difficulty in its assessment as the key reason for this "under-exploration" (Sancha *et al.*, 2016). While this view is also still shared by some of the leather supply chain actors, there appears to be significant progress made in measuring the advancement of social sustainability implementation and execution, as seen from the sustainability reports analysed.

Findings from this study reveal other vital reasons why social sustainability may be under-discussed in the leather industry. First, it is deemed necessary for actors to implement social practices into their operations in the European leather industry context. DIRECTIVE 2014/95/EU (2014) instructs that companies with an *"average number of 500 employees during the financial year shall include in the management report a non-financial statement containing information to the extent necessary for an understanding of the undertaking's development, performance, position and impact of its activity, relating to, as a minimum, environmental, social and employee matters, respect for human rights, anti-corruption and*

bribery matters..." Hence, as confirmed by some of the chemical companies (as earlier discussed), social sustainability is seen as a "normal thing" to do, which could result in its under-discussion, at least in the context of the companies that participated in this study.

In addition to regulations on meeting labour laws and other business regulations, leather companies are also seen to be guided by frameworks such as the ISO 18000, ISO 26000, Code of Conduct in the Leather and Tanning Sector and Social Sectoral Dialogue, which necessitates that they meet labour and health/safety standards, also conforming to literature (DIRECTIVE 2014/95/EU, 2014; Śmiechowski and Lament, 2017).

Secondly, certification organisations like LWG are perceived to hold a significant institutional influence on the industry in terms of sustainability discussions, implementation and assessment. Some interviewees suggested that incorporating social aspects into existing assessment tools like LWG environmental stewardship protocol had been the subject of several deliberations.

"...So, I think basically, a lot of brands would like Leather Working Group to do a social aspect as well. But the social side of it is not as scientific as a yes or no answer. And different brands will have a different perception of what they deem to be acceptable or not." (MANRET 3, GIIM)

"Yes, it's a good question. This comes up a lot at the Leather Working Group meetings where we ask questions like, should we include social aspects as parts of it (LWG environmental stewardship protocol), and in some ways, it would be a good idea because it would complete the whole picture. But then you need a whole different group of auditors" (Chemicals 5, ESGD)

However, (as shown below) participants indicated that the issue with the above is that the focal companies and large brands already have metrics they use when working with smaller actors and/or suppliers to assess their social sustainability capabilities.

As a result, it was suggested that the creation of additional metrics by the certification bodies could have adverse effects on suppliers due to potential increased requirements that could be expensive and confusing for supply chain actors. This comment is captured below:

"When we ask the members of the Leather Working Group about that (social sustainability aspect), they usually they respond by saying, well, the brands who are driving the Leather Working Group are the ones behind it. They already have the social audits that they perform on their supply chain, yeah, the whole supply chain, including textiles. So, adding another social audit to that burden may negatively impact the tannery because they just get so tired of all the audits, etc. So, it's a topic that is always being discussed. But the message we've got is that the tanneries are being ordered already by the brands on the social things. So that's why the Leather Working Group has not added social audits to its protocol." (Chemicals 5, ESGD)

Despite these issues, several interviewees expressed the need for sustainability governance in the industry to be directed increasingly towards social sustainability discussions, noting that this can lead to a unified standard of social sustainability assessment that will apply to all key supply chain actors. From the discussion of social sustainability dynamics that reveal the issues with the concept in the industry, the next section discusses the practices identified from the analysed data provides an in-depth view of the social sustainability practices taking place in the leather industry, discussed in the next section.

4.3.3 Social Sustainability Practices in the Leather Industry

This section presents the key social sustainability practices identified from the interviews and sustainability reports from respective SC actors (addressing the shaded area in **Figure 4-2** and Research Objective 1 on Page 108). The results obtained and analysis shows no stark difference in SS practices implemented from one supply chain actor to another.

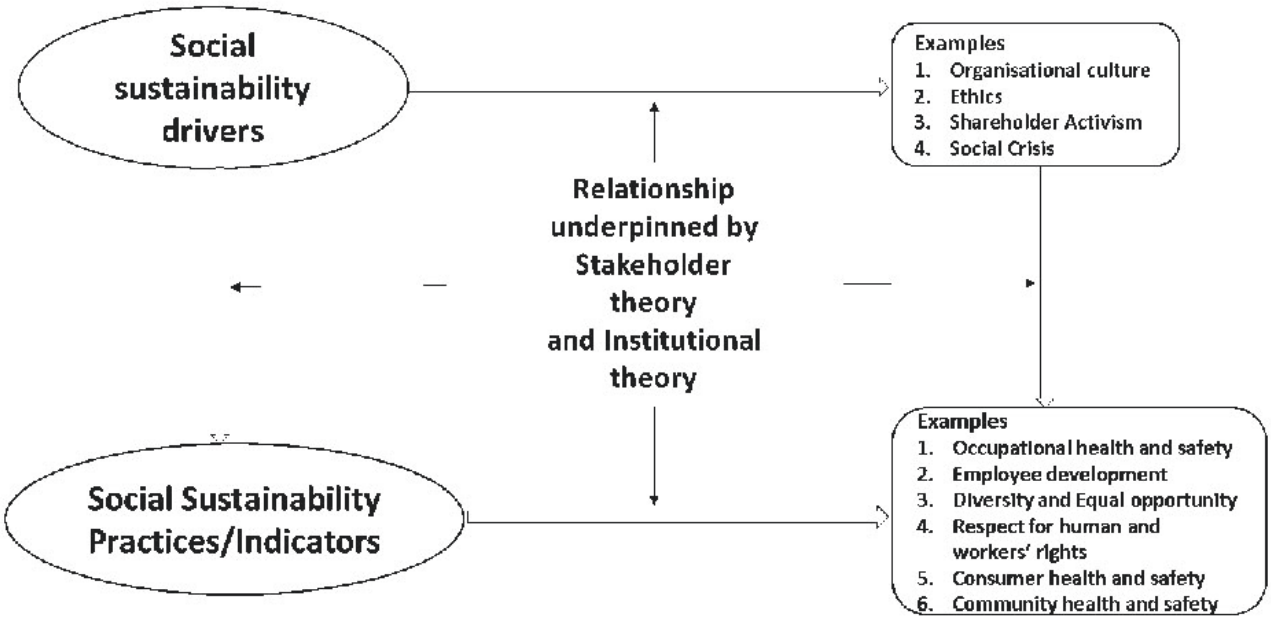


Figure 4-2: Initial Conceptual Framework (ICF) - Focus on Social Sustainability Practices (Source: Developed by Researcher)

Sustainability practices are defined as activities implemented by organisations to execute their sustainability plans. The analysis categorises the practices based on the two key aspects of social sustainability defined in the literature, i.e. social needs and equity (Vallance *et al.*, 2011; Landorf, 2011); Social equity includes a just and equitable treatment of employees (Åhman, 2013) while social needs could be attributed to the Maslow's hierarchy of needs which provides for psychological needs, safety needs, love needs, esteem needs and self-actualisation needs. From the analysis of data received, several essential practices emerge, as shown in **Table 4-4.**

Table 4-4: Social Sustainability Practices in the Leather Supply Chain (Source: Developed by Researcher)

Aspects of Social Sustainability	Related practices
Social needs	1. Development of human capital 2. Promoting health and safety practices 3. Encouraging employee engagement and participation 4. Rewarding employees for performance 5. Community development
Equity	1. Promoting diversity, equality and inclusion 2. Commitment to human right principles 3. Meeting labour standards 4. Upholding animal welfare principles 5. Community development

Although these practices are divided between social needs and equity, it should be noted that a stark separation is not suggested between both aspects. Instead, an inter-relationship of outcomes from the identified practices exists. For example, promoting diversity and inclusion could encourage employee engagement and participation (Johnson, 2017). Discussion on the practices related to the key actors in the SC follows in the next sections.

4.3.3.1 Social Needs Aspect of Social Sustainability in the Leather Industry

Social sustainability practices that are categorised under social needs are observed to be primarily focused on employees through several practices. These practices are discussed in the sections below.

Development of Human Capital

Developing human capital is found to be a key topic and practice among stakeholders in the leather industry. This could be due to reasons such as the ageing experts in the field and the need to develop the next generation to take the industry forward (Brugnoli *et al.*, 2013). From the data collected and analysed, it was discovered that this is a general practice by all key members of the SC – chemical suppliers, tanneries and manufacturers, reflecting the importance of the practice. Evidence of this is seen in the comments below:

> *"Skilled and committed employees are crucial to our success, now and in the future, as well as to making a contribution to society. Enabling our employees to develop and grow is an important aspect of that. Improving skills, competence, and cooperation is just as important to us as increasing knowledge." (Chemicals A, report)*

The implementation of the practice is shown to be executed in several ways, as shown in **Figure 4-3.**

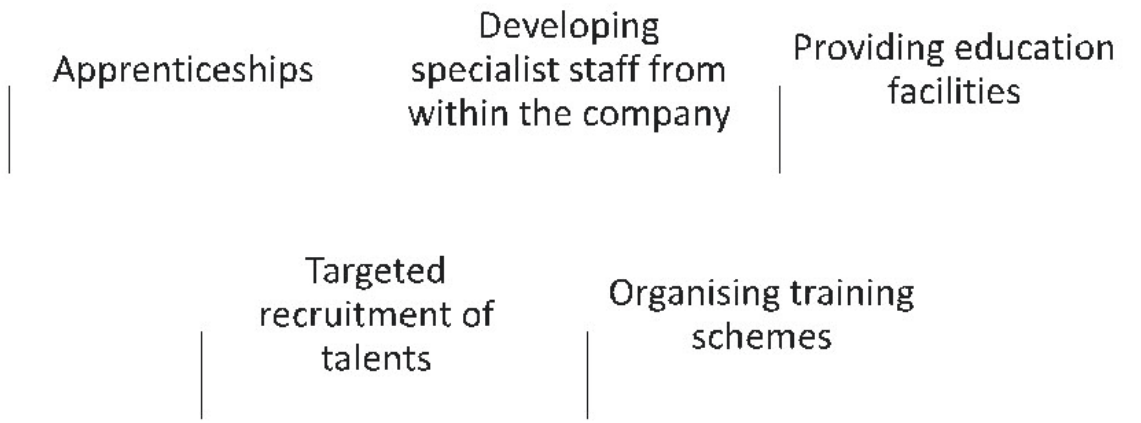


Figure 4-3: Practices relating to Human Capital Development (Source: Developed by Researcher)

Organising apprenticeships appears to be an essential aspect of human capital development in the industry. It features a form of training scheme designed to develop talent and the next set of skilled employees, including tanners, chemists, metal technicians, electrical engineers, laboratory technicians, and industrial business management assistants. These apprenticeship schemes usually run for a longer time than on-the-job training activities. It was further stated that apprentices could be allowed to complete the programme in conjunction with other vocational training or higher education programmes.

On the other hand, broader training schemes are reported to usually have shorter time frames than apprenticeships. They are also reported to be geared towards diversity and equality, health and safety practices, improving cooperation and personal effectiveness at the workplace, increasing knowledge on ethical practices, foreign languages (for intercultural understanding) etc., for old and new employees.

This training could also be geared towards developing specialists' staff from within the organisation through vocational training that can be within or outside the company. The above statements are well captured and evidenced in one of the sustainability reports reviewed:

"The internal training programs include on-the-job training and various training programs for new employees and current employees for regular refresher courses. The topics covered are various aspects of our CSR principles and principles of conduct, health protection and occupational safety, quality, environmental and energy management, and sustainable procurement. Our raw material purchasers are trained at least annually in sustainable procurement and environmental and social aspects in the supply chain." (Tannery A, report)

To develop human capital and complement face-to-face training programmes, some companies in the study are also seen to provide educational facilities to offer online platforms for employees to participate in new learnings on the job. Targeted techniques are also used to recruit new employees that embody company values and culture. These human capital development sub-practices appear to be geared ultimately towards preserving the *savior-faire* of the industry. Developing human capital feature as a core theme, which was identified by a significant number of interview participants and in the majority of the reports analysed.

This finding is contrary to conclusions from Munny *et al.* (2019) who found that health and safety was the "biggest enabler" towards social sustainability in the leather industry. Findings from interview participants (especially Tanneries, Manufacturers and Retailers) and the reports analysed suggest that leather supply chain actors take other aspects of social sustainability (such as developing human capital) equally as serious as health and safety and do not see health and safety as the key enabler of social sustainability, rather an equal enabler with other practices.

Promoting Health and Safety Practices

Health and Safety (H&S) practices are considered a core practice considering social sustainability in the entire leather SC. This was a major theme discussed during interviews and sustainability reports. Even though the concepts of "health" and "safety" were often used together, interview participants attempted to understand both terms separately and how they inter-relate. This is explained in the quote below:

> *"There is a lot of things and a lot of activities working on that because we have health and safety and wellbeing as being the same thing and I think when you say health and safety, people concentrate on safety. They concentrate on making sure that nothing breaks, nothing falls, that everyone is secure, and have the right PPEs. The reality is, not a lot of people can share the health side of it" (Tannery 1, TD)*

The view that health and safety are used interchangeably reflects the traditional and narrow thinking of health and safety, which as Dawson and Zanko (2011) identify, could be a barrier to the appropriate implementation of related practices. Interpretively, health is to the wellbeing of employees, community and customers, while safety is primarily related to protecting workers at the workplace using personal protective equipment and other safety precautions. The analysis of data shows that employees' health and safety are fostered with practices embedded in internal company programmes and policies. These policies are shown to be

communicated to employees through channels such as onboard training and on-the job-trainings, which could take place face-to-face or through online platforms.

Furthermore, it is seen as part of the integrated management systems of companies and often extended to suppliers. Employees could also be actively involved in ensuring the continuous improvement of the H&S programmes and systems, as seen below:

"Employees submit suggestions for improving occupational safety with regard to ergonomics, effort, accident prevention, etc. With all these measures, we were able to reduce the number of accidents and the severity of accidents in the last few decades." (Tannery A, report)

Some of the programmes to improve the health and wellbeing of workers include sporting activities such as walking, running, cycling; fruits supply for employees; support health coverage services and insurance of employees; organised food service of employees; organised weight loss/fitness clubs; organising social fund for employees whose families have experienced some misfortune through no fault of their own.

"We provide fresh fruits weekly to employees as part of the social wellbeing, making us healthier" (Tannery 1, TD)

"We have a health and wellbeing forum where there's a lot of people across the business, from the shop floor workers to staff to directors. They are involved in idea generation, as you can tell by a lot by the attendance of some of the clubs we have. For instance, there is one on weight loss, so people are doing a lot of things like weighing in once a week and we have all other types of activities like, who can do the most steps in the factory. And we have one for cycling, we have one for running, and it just motivates us." (Tannery 1, TD).

On the other hand, employees' safety in the leather SC is predominantly practised by ensuring a safe working environment that seeks to reduce injury rate and exposure rate to harmful substances like chemicals and effluents. This is ensured through the diligent use of personal protective equipment, training employees to become first aiders and regular training on occupational safety risks and Best Available Technologies (BATs).

Furthermore, chemical suppliers reported they take the safety issue seriously beyond their company into SC by educating tanneries on safe chemical handling; hence, viewing this (education) as their unique role in the leather SC and a competitive advantage point (discussed earlier), as shown in the comments below:

"Obviously, our customers are the tanneries, the places where the leather is made, and our actions is not only to sell chemicals; it is about education. As I said before, we see it as our obligation, our duty to train people, that they are able to understand the process and the risks of the chemicals and how to handle it in a safe way. This is very important. We would also advise, for instance, people to wear protective clothing." (Chemicals 3, IIR)

"Education, I think education in some ways, collaboration, we also collaborate with some of our competitors in some matters, for example, safe use of chemicals but it is essentially about education and taking people on the hands and showing them why it is important to do things differently." (Chemical 2, GDS)

"We do a lot of training with our chemical suppliers, send a lot of people to chemical suppliers for training. Equally, we sometimes have some of our chemical suppliers send people here for training." (Tannery 1, TD)

In conclusion, the "what" and "how" (how it is implemented) of health and safety in the leather industry shows the presence of a shift from the traditional interpretation to a modern view—thus showing progress on Dawson and Zanko (2011)'s perspective that health and safety should be addressed separately, not synonymously.

Encouraging Employee Engagement and Participation

Employee participation is also seen as a form of SS practice that allows for employee participation in the day-to-day management and some level of decision making regarding the execution of operations, including sustainability practices. The related key practices identified include feedback and surveys provided to employees on their performance, seeking opinions/ideas towards improvement in the company, and granting employees autonomy and initiative to take responsibility and make key decisions. Related to autonomy and initiative is the practice of ensuring that employees contribute to idea generation towards more efficient operations and occupational health and safety. Evidence of these is seen below.

Another form of employee engagement reported is the inclusion of employees from the shop floor up to the director in key committees that are responsible for sustainability orientation and implementation. This represents a cross-functional team approach that is considered important by some of the leather companies in the study because it allows information diffusion across the company and gives employees a sense of importance and relevance to the company.

Employees are also seen to engage and participate in fundraising activities towards community development projects in areas where they are located or where their supply chains are located. Evidence of these practices that indicate employee participation and engagement is shown in **Table 4-5.**

Table 4-5: Employee Participation Practices and Evidence (Source: Developed by Researcher)

Practice	Evidence
Feedbacks and surveys	*"I think the first thing is to gauge their opinions. We get feedback in surveys, feedback in workforce committees. We have a suggestion system in place where employees find and record improvements. Employees write problems, pass it on to other employees who suggest solutions, and that goes to someone who does the solution, and then goes back to the starting point where they see the solution has been implemented." (Tannery 1, SID)*
Autonomy and initiative	*"I've got employees who can come up to me if a contractor is not wearing the correct protective equipment. Ten years ago, they wouldn't have bothered, but today, they come and tell me and can even challenge the contractor" (Tannery 1, SID)*
Progressive idea generation	*"With our ideas management system, we systematically promote the development and implementation of suggestions for improvement to keep on generating impetus for improving economic efficiency, occupational safety and environmental protection. Many good ideas were again implemented in 2018." (Chemical A, report)*
Sustainability committees	*"We have a group, which is the sustainability advisory committee, which I'm on as well. Again, a very cross-functional team from all the group companies, from the director down to shop floor workers" (Tannery 1, TD)*
Fundraising activities	*"Beyond that, staff are involved in fundraising, external activities, and feel-good stuff. The fundraising is for the locals. Anything from feedback to Christmas gift to children of the community." (Tannery 1, SID).*

The practices identified are broadly aligned with previous studies that have suggested the importance of employee participation in the workplace (Donnelly and Proctor-Thomson, 2011). The practices also fit into the three aspects of employee participation proposed by Heller *et al.* (1998), which are the intensity of participation (autonomy and initiative), forms of participation (feedbacks and surveys, idea generation), and type of issues of participative decisions (sustainability committees). It was reported in this study that employee participation leads to further employee commitment as they feel more involved, valued and relevant to the

organisation's progress in achieving its near- and long-term targets. Participation from employees reflects the "esteem needs" aspect of Maslow's hierarchy of needs.

Rewarding Employees' Performance

Some of the companies also identified the reward of employees' performances as an important social sustainability practice. This is done in two identified ways. One is through individual financial remuneration for outstanding performances of an employee during the year:

"Furthermore, through the individual performance payment (IPP), managers can also reward outstanding performance of an employee during the year promptly and with no red tape." (Chemical A, report)

And the other way is through an open celebration of employees' performance at industry or company events:

"...we celebrate exceptional employee contributions at our annual Global Icon Awards. Nominees are put forward and voted for by our employees." (MANRET B, report)

This recognition and reward of employee performance also fit into the esteem needs of Maslow's hierarchy of needs (Hutchins and Sutherland, 2008), reflecting improved social and motivated employees' wellbeing. An example of these types of recognition could be observed at events in the leather industry.

Community Development

Community development activities are observed to tackle issues related to the basic needs and equity of people in specific communities. Companies and employees in the study are seen to participate in community development activities that support members of communities in either their supply chain in other countries or within the community (in countries) in which they operate. These community development activities can include organising educational institutions and/or initiatives, where skills and capabilities of community members and youths are developed in order to foster capacity development and enable the companies to source top talent in the area of jurisdiction. They could also be geared towards the health and safety of the community.

"This foundation supports local initiatives on education and health care projects in Kenya and Uganda. Education gives children an opportunity to make changes in their own country that will also benefit the next generation. In order to be able to learn and go to school, children have to be healthy." (Chemical B, report)

Broadly, community development activities are found to cover a range of basic needs such as education, water, climate protection, culture and health and safety. Investments in community development activities are also seen to range from charitable donations and gifts, commercial projects and community investments. Companies noted that they gave support to employees that are committed to community projects. The impacts of community development activities could lead to a sense of place and belonging, safety and security, stability, participation and networking in collective groups, community resilience and social equity (Dempsey *et al.*, 2011; Magis, 2010)

4.3.3.2 Equity Aspect of Social Sustainability in the Leather Industry

As the second pillar of social sustainability, the data analysis identified three main practices linked to human equity. These practices include promoting diversity and inclusion, a commitment to human right principles and meeting labour standards. They heavily featured in the interviews and reports, signifying their importance to the whole SC. Both the research participants and sustainability reports largely emphasised the importance of ensuring that they uphold these practices to manage business risks and ensure that their SC partners do the same, through internal and external policies and contractual agreements. Related practices are discussed in the next section.

Promoting Diversity, Equality and Inclusion

The practice of diversity, equality and inclusion considers key areas such as age, gender, nationality, disability inclusion, religion, culture and ethnicity, as shown below:

> *"The Group is committed to the principles of recognition and respect, irrespective of one's origin, gender, family situation or métier. This respect for differences is presented to the employees in the ethical charter that serves as the guarantor of the objectivity, equal opportunity and promotion of diversity without discrimination in recruitment, career development and daily management. There is also a specific training segment on managing diversity for all managers." (MANRET C, report)*

These considerations and principles also appear to be key human resource management sustainability activities related explicitly to employees before and after recruitment (Rowan, 2000). For age, the organisations seek to balance individuals in the age bracket of working individuals (15 years – 64 years) as defined by the OECD (2016). For example:

> *"The average age worldwide is 36 years (2017: 37 years) – in Mexico, for example, 33 years, in Germany 41 years – which ultimately reflects the demographic trend in these countries" (Tannery A, report)*

While this could reflect the demography in the countries surveyed, the balance sought by these organisations could provide a means for employees with longer years of experience to pass on knowledge and expertise to newer employees through mentorships and training (Brugnoli *et al.*, 2013).

Secondly, gender equality divides into some key aspects, such as considering the gender pay gap, equal opportunities for men and women based on education/skills level and senior positions in companies. Evidence of these is seen in:

"Ensure our policies, processes, practices and resources promote equal gender representation in our Leadership population" (MANRET B, report)

"One of our global focal points is gender diversity. We are taking various measures to increase the proportion of women in the company. We are gearing our employer branding and sourcing more heavily toward women, making appointment processes more objective via a multiple-assessor principle, defining criteria for identifying talent, and improving opportunities for a better work/ life balance (Chemical A, report)."

"Equal opportunity is also reflected in the compensation and benefit system, based on the enhancement of skills and on merit, which ensures consistent treatment of genders, seniority and positions" (MANRET D, report)

It could be inferred that significant progress is being made in the industry regarding the gender equality practice as it was highlighted by a substantial number of interview participants and sustainability reports relating to all key actors of the SC.

Thirdly, diversity in nationality/geography is a crucial area explored by leather SC players in Europe, featuring in almost all sustainability reports analysed:

"We employ 2,000 people with 61 nationalities, in 27 countries" (Chemical C, report)

Diversity in nationality is noted to be used by companies to ensure cultural diversity and foster intercultural understanding. Intercultural understanding is indicated to enable employees to develop a geocentric orientation and an ability to work and deal with people from diverse cultures, religions, and ethnicities (Perry and Southwell, 2011). Disability is also another area taken into consideration, as organisations ensure that disabled employees are not discriminated against before and/or after recruitment, as shown below:

"Eliminate gender disparities in education and ensure equal access, including for persons with disabilities". Helping people with disabilities access and retain employment is a major issue. The signing of a Group disability agreement in France in 2017 includes ambitious objectives in this regard" (MANRET C, report)

Diversity and inclusion are reported to be implemented by embedding its principles into management training programmes, policies, processes and meetings, to achieve some set of goals:

"Diversity and inclusion principles are also embedded within the core leadership & management training programs to encourage managers to demonstrate these principles as part of their leadership behaviour". (Chemical C, report)

Training sessions on the subject (of diversity and inclusion) are given to management, and the subject is specifically discussed in Human Resources meetings (MANRET C, report)

Embedding diversity and inclusion modules into leadership programmes underpin findings from Johnson (2017), who noted that implementation of diversity practices are more successful when they are initiated from the top. Companies pointed out that embedding diversity, equal opportunities and inclusion into the knowledge and actions of the company and employees tend to lead to the development of robust leadership capacities; inspiration and innovation for business; cultural strength and creativity; attraction and retention of talents; and also allows for growing a global customer base.

Commitment to Human Right Principles

Manufacturers/Retailers, tanneries, and chemical companies show a commitment to observing human rights principles and ensuring that these rights are observed in their markets and among their SC partners. As shown below, adherence appears to be a core practice observed, regardless of a lack of standards in the countries where their suppliers are based.

"In line with our values and operational guidelines, we are committed in all our markets and supply chains to promoting respect for human rights at all times. Human rights and ethical principles apply without restriction, even if they are not stipulated in the legislation of individual countries" (Chemical A, report)

The necessary instructions relating to the respect of human rights are reported to be instituted in policies and code of conducts (including supplier code of conducts). These codes of conduct are usually made available to the public and also shared with employees during periods of training. Suppliers are also subject to assessments that evaluate their compliance with human right principles, including voluntary labour and child labour abuse. These assessments are reported to enable organisations to manage risk.

Finally, some companies are seen to appoint compliance officers who are tasked to ensure that this key practice is not faulted either within the organisation or among SC partners, as seen below:

"A working hours officer has been appointed to ensure compliance with working hours."
(MANRET A, report)

The appointment of compliance officers conforms with findings in the literature. Fu *et al.* (2020) noted that compliance officers' appointment serves to improve a company's social sustainability performance by reducing or curbing social irresponsibility. A closely related practice to the "respect of human right principles" is meeting labour standards. discussed below.

Meeting Labour Standards

Keeping and upholding labour standards in the workplace is another SC-wide social practice. Companies usually ensure their upstream suppliers fulfil the key aspects of the practice. These practices are also components of the United Nations global compact principles, which seems to be very well understood by leather SC actors and even passed on to suppliers, usually in procurement policies. Some of the practices identified include fair wages, prevention of modern slavery, prevention of child labour use, supporting freedom of association, preventing forced labour and encourage flexible working hours, as shown in **Table 4-6** below.

Table 4-6: Labour Standard Practices and Evidence (Source: Developed by Researcher)

Practice	Evidence
Fair wages	*"...so, we manufacture in Turkey, and China and in Vietnam, and I audit them annually or 18 months to ensure that they're getting paid a living wage." (MANRET 2, GSM)*
Prevent modern slavery	*"Modern slavery, or any form of forced or compulsory labour, is a violation of human rights. Our company takes a strong stance against modern slavery and works to ensure high labour rights standards. Our company condemns any form of modern slavery and child labour and shall not participate." (Chemical C, report)*
Prevent child labour	*"Prohibition of child labour is strictly rejected at our company. With the exception of trainees (after the 9th year of school) and summer interns (from 16 years of age), we only employ persons from the age of 18 years or older." (MANRET A, report)*
Supporting freedom of association	*"Dialog with chemicals social partners – trade unions and employer associations alike as a principle of consultation in action is the global practice at our company. As part of this, we also respect the freedom of association of our employees in accordance with the International Labour Organization (ILO) and the Global Compact and comply with collective bargaining agreements." (MANRET A, report)*
Preventing forced labour	*"Our company rejects violations such as forced labour, human trafficking and child labour, unreservedly. All employees work at our company voluntarily." (Tannery A, report)*
Flexible working hours	*"Flexible working hours enabling employees to achieve a more productive work-life balance; employee rights of and working conditions (including the number of regular/ overtime/vacation hours, salaries and zero tolerance for child labour and forced labour)." (MANRET D, report)*
NOTE: "Our company" is meant to denote and replace the name of the company under observation.	

All participants in the study noted that they ensure that the suppliers they sell to or deal with uphold these standards. This is usually done through activities such as audits and site visits. Monitoring suppliers' activities through these means is noted to help reduce supply chain risks and serves as criteria used during supplier selection. This conforms with previous literature that suppliers' monitoring and evaluation assists in improving brand image and reputation and acts as a "risk mitigation strategy (Sancha *et al.*, 2016).

Upholding Animal Welfare Principles

Due to the use of waste (hides and skins) from the animal industry and pressure from Non-Governmental Organisations (NGOs), tanneries and manufacturers noted that they ensure their suppliers meet animal welfare principles.

> *"We only purchase hides from abattoirs that themselves observe strict animal welfare standards enshrined in the "Five Freedoms Principles". These have been adopted by the Farm Animal Welfare Council and the World Organisation for Animal Health, and they outline five aspects of animal welfare under human control. Our suppliers' adherence to these principles is independently audited to provide both ourselves and our customers with an assurance of the source and treatment of the cattle in our supply chain." (Tannery B, report)*

Abattoirs, where raw materials are sourced, are required by other SC actors to uphold the five freedom principles relating to animal welfare. This practice was also categorised by ICT (2018) as an important social sustainability activity. The five freedom principles include freedom from thirst, hunger and malnutrition; freedom from discomfort and exposure; freedom from pain, injury and disease; freedom from fear and distress; and freedom to express normal behaviour (Mellor, 2016). Relevant actors are, therefore, audited to ensure compliance. This practice could represent equity beyond people towards animals and can signify the encompassing principles that embody the leather industry in doing the right thing. Upholding animal welfare practices appears to be the outlying practice specific to the leather industry actors and specifically applicable to tanneries and manufacturers.

In conclusion, the social practices discussed prove to be mostly similar amongst all the industry actors. This similarity was identified either during interviews or in corresponding sustainability reports, with few exemptions like animal welfare practices, of which compliance is inclined towards the tanneries (due to their exposure to abattoirs and SC customers like manufacturers, OEMs) and manufacturing companies (usually focused companies that are consumer-facing, as well as tannery facing).

Health and safety practices are also mostly similar among actors. However, the chemical companies tend to have a further role in ensuring their customers (usually tanneries) adequately and safely use supplied chemicals. Previous studies (Munny *et al.*, 2019) attached encompassing importance and significance to health and safety practices in the leather industry, more than other practices. As such, literature on social sustainability has focused largely on health and safety issues in the leather industry (Syed *et al.*, 2010; Garai, 2014; Decouple, 2013;

Munny *et al.*, 2019), contrary to the wider practical focus that leather supply chain actors and companies have, as discussed above.

This translates that importance should not be placed on one practice as a key enabler/practice of social sustainability in the leather industry. Instead, attention should be equally placed on all practices because a focus on implementing health and safety may not address other important issues such as diversity, employee engagement, staff development etc. and vice versa.

In conclusion, although practices relating to social needs and equity are discussed in separate sections, it is useful to consider them as interrelated. This set of practices are observed to take precedent to indicators, meaning that there could not be indicators without practices. As a result of the similarity in the practices among leather supply chain actors, the researcher argues that developing a unified social sustainability assessment system for the leather industry may be feasible.

4.3.4 Social Sustainability Indicators in the Leather Industry

This section presents the key social sustainability indicators that were identified primarily from the sustainability reports of leather SC actors and secondarily from interviews (addressing the shaded area in **Figure 4-4** and Research Objective 2 on Page 108). The results obtained and analysis shows no stark difference in SS indicators from one supply chain actor to another. However, there appears to be a difference in the level of development of social sustainability indicators among companies, regardless of the supply chain level. Some of the research participants (at all levels of the supply chain under study) possess well developed, quantitative indicators used for measuring social performance, while a few have more qualitative means through which they indicate performance. Evidence of this is seen below:

> *"Okay. So, it's still a little bit under development. So, we have topics which we address, but sometimes we still cannot provide the indicators. And I can tell you a little bit about the background of that. We have this chapter, which we call people, social responsibility. And then we address one part, which is social engagement as a basis where we talk about the projects we have in different countries, and they are quite different. And it's more descriptive nature." (Tannery 2, PMS)*

This illustrates the development stage that social sustainability is going through in the industry against a more mature environmental sustainability dimension.

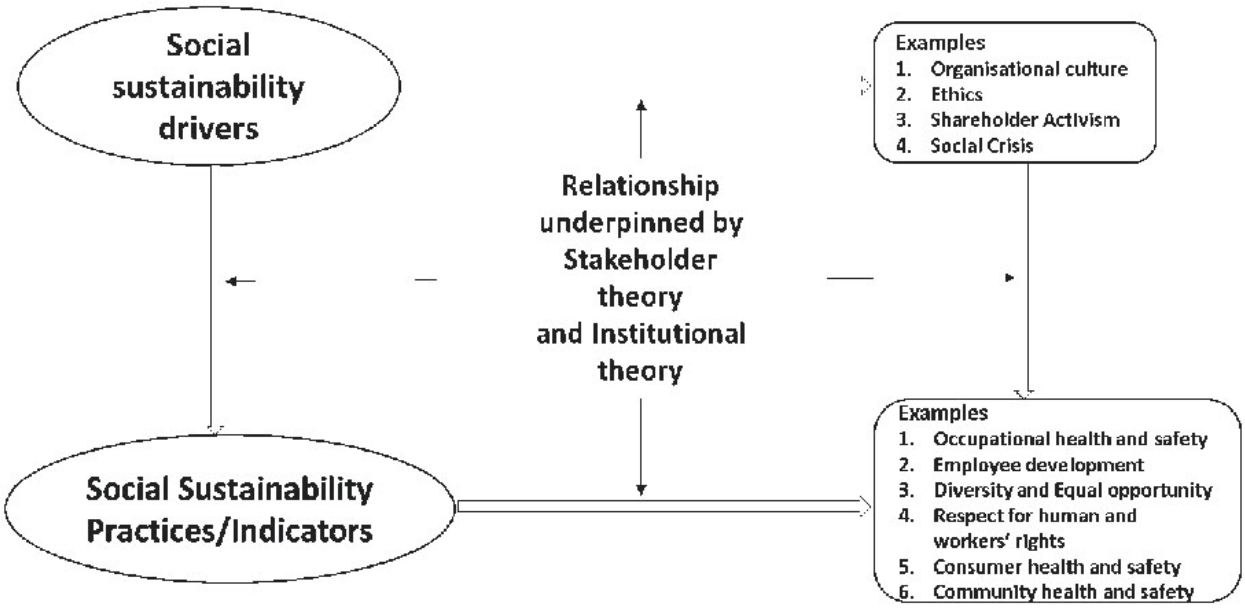


Figure 4-4: ICF - Focus on Social Sustainability Indicators (Source: Developed by Researcher)

Participants defined indicators here as metrics used to gauge how set sustainability targets are being met after implementing respective practices. As expected, there is a perceived difficulty in implementing and assessing social sustainability, compared to the environmental and economic aspects, citing reasons such as the intangibility of its practices (compared to the other two dimensions), leading to difficulty in measuring performance. Evidence of this is seen in comments such as:

"I think partly, it has to deal with less tangible, it is more difficult to get it measured, and it is also not audited until this moment." (Chemicals 2, GDS)

Furthermore, when asked, participants also expressed the importance of the certification bodies (notably the Leather Working Group) in improving social sustainability assessments/assessments in the leather industry.

"Good question. So, I think basically, a lot of brands would like Leather Working Group to do a social aspect as well." (MANRET 3, GHM)

However, participants expressed the progress that their respective companies and the industry are making towards measuring their social sustainability performances.

"That is now going to start with the introduction of the chemical management module. So, I do think there are measures being set up, which will help the industry to measure the progress in social and safety and health." (Chemical 2, GDS)

Furthermore, social sustainability indicators do not appear to be different from one SC actor to the other. In fact, as with the similarity in practices among each SC actors, indicators used to measure the impact of different social practices [discussed earlier] are significantly similar in the reports and interviews analysed. One of the interviewees supported this finding with:

> *"Leather manufacture is a manufacturing industry, and you have the same principle requirements for health and safety, chemical control, environmental protection, there are specifics within it, which relate to the nature of the process. But I don't think that means any specific drivers for the industry on a social level that would be unique." (LA 3, D)*

Based on the several practices identified, **Table 4-7** to **Table 4-12** below shows how different social sustainability practices are measured in the leather SC, using indicators. The tables below are curated from the sustainability reports of leather companies around the supply chain and analysed according to the categories found in these reports.

Table 4-7: Indicators related to Diversity and Equal Opportunities (Source: Developed by Researcher)

SS Practices	Indicators
Age	Representation of workers across different age groups[1]
Disability	Share of the severely disabled in our workforce compared to total workforce[2]
Gender	1. **Proportion of male to female employees:** ratio between males and females for each job category[1] 2. Total number of employees by employment type (full-time and part-time), by gender[3] 3. Total number of employees by employment contract (permanent and temporary), by gender[3] 4. **Proportion of women in leadership positions:** Number of women globally in Director and above roles, divided by total number of Director and above roles[4]. 5. Proportion of women in middle and upper management[3] 6. Proportion of women on the Board of Management[3] 7. Proportion of women in the first level below the Board of Management[3] 8. Increase the proportion of women in the second level below the Board of Management[3]
Nationality, culture, geography	1. Percentage of employees per geographical area[3] 2. Total number of employees by employment contract (permanent and temporary), by region[3]
Religion	
Wage distribution between genders	Compensation mainly reflects skills, levels of responsibility and local conditions[4]
Wage distribution between top level and bottom level employees	Compensation mainly reflects skills, levels of responsibility and local conditions[4]
1- MANRET D Report; **2**- Tannery A report; **3**- Chemical A report; **4**- MANRET C report	

Table 4-8: Indicators related to Development of Human Capital (Source: Developed by Researcher)

Social topic	Indicators
Apprenticeships	1. Proportion of apprentices hired[3] 2. Rate of Apprentices by career path[3]
Training	1. Average training hours per employee[1] 2. Average training hours in male and female employees[5]
1- MANRET D Report; **3**- Chemical A report; **5**- Chemical B report	

Table 4-9: Indicators related to Employee Engagement (Source: Developed by Researcher)

Social topic	Indicators
Autonomy and Initiative	Employee engagement score as measured by Mercer Sirota[6]
Feedback and Surveys	As above
Social innovation, e.g., fundraising and external initiatives	As above
Cross functional Sustainability committees	As above
6- MANRET B report	

Table 4-10: Indicators related to Health and Safety (Source: Developed by Researcher)

Social topic	Indicators
Healthcare coverage	Supplementary health insurance with an option to include immediate family at a special rate[1]
Accidents	1. Number of reportable incidents relating to facility and process safety[3] 2. Number of reportable environmental incidents[3] 3. Number of reportable transportation incidents[3]
Time lost to injury or diseases	Days lost for accidents/hours worked) * 1,000[1]
Absenteeism	Accumulated hours of absence for the following reasons over a period less than or equal to 90 consecutive days[4]
1- MANRET D Report; **3-** Chemical A report; **4-** MANRET C report	

Table 4-11: Indicators related to Human Rights Practices/Violation (Source: Developed by Researcher)

Social topic	Indicators
Discrimination	Total number of incidents of discrimination and corrective actions taken[1]
Child and forced labour	Employment of 18 years or older (except trainees - 9th year of school and summer interns - from 16 years old)[7]
Human rights employee training	Number of employees given related training[8]
1- MANRET D Report; **7-** MANRET A report; **8-** Chemical C report	

Table 4-12: Indicators related to Labour/Employee-related Issues (Source: Developed by Researcher)

Social topic	Indicators
Vacation	Fixed amount equivalent to one month's pay as defined in the collective bargaining agreement[1]
Work satisfaction	Rate of positive/negative satisfaction amongst employees[3]
Working hours	Number of employee-related complaints related to working hours[7]
Full-time/Part-time employees	Total number of employees by employment contract[3]
Employee turnover	Turnover rate based on resignations[3]
Workplace Promotion rate	
Employee complaints on employment-related issues	Number of employee complaints on employment-related issues[1]
Collective bargaining agreements	Percentage of total employees covered by collective bargaining agreements[3]
Performance bonus	Variable bonus linked to production, sales and profit targets[1]
1- MANRET D Report; **3**- Chemical A report; **7**- MANRET A report	

Popovic *et al.* (2018) concluded that there are three types of indicators: general indicators, which tend to be applicable to measure social sustainability for the whole SC; SC indicators suitable for different SC echelons and industry level indicators that are only specific to specific industries. Information extracted from the analysis shows that several of the indicators identified apply to the whole leather SC, meaning that they can be used to measure progress on social sustainability across the entire leather SC. Hence, general indicators can be practically utilised across the leather supply chain to measure social sustainability performance.

The only echelon and industry-specific indicator is related to animal welfare practices, which is observed to be descriptive among actors in the tannery and manufacturing echelons and not directly relevant to the chemical industry. None of the sustainability reports analysed showed a quantitative means to evaluate how animal welfare practices among suppliers are ensured; hence, this could be a qualitative measure.

From the present research, the selection of indicators is identified to usually stem from sources after implemented practices (a) assessment frameworks such as the Global Reporting Initiative (GRI) and (b) internally developed indicators. The indicators are pointed out to be necessary for the management of the practices and assessment of progress. This conforms to the previous literature, which suggested that what cannot be measured cannot be managed (Engelman,

2013). As such, the leather-related companies in this context have been making progress in measuring their social sustainability impacts to complement the economic and environmental aspects. This is usually reported in two ways: internal reporting and external reporting. Some of these companies have internal assessment systems that are not published but are managed by the internal human resources department in respective organisations.

Companies that also measure and externally report their social performances reveal that their human resources department is usually solely responsible for implementing social sustainability practices related to employees. Companies that report externally typically employ the GRI Initiative on "what and how to measure" and can be guided by the principles in assessment frameworks like the UN Global Compact (Antolín-López *et al.*, 2016). These assessment frameworks, in turn, tend to guide these companies on "what and how to measure:

"This document is the company's fifth - third according to the GRI - G4 principles - Social Responsibility Report and provides a description of the main initiatives undertaken in fiscal year 2017." (MANRET D, report)

Furthermore, from a stakeholder perspective, stakeholders (including governments, customers, suppliers, employees, community, unions, etc.) are usually the push or pull factor for companies towards social sustainability implementation (Saeed and Kersten, 2019). However, a key observation from the indicators and practices identified in the respective tables above is that during social sustainability implementation, there are three key sources from which SS is assessed: employees, community and animals, as shown in **Figure 4-5.** These three sources can also be referred to as "objects" of social sustainability indicators and assessment in the leather industry.

Figure 4-5: Key Sources of Social Sustainability Practices and Indicators in the Leather Industry (Source: Developed by Researcher)

First, previous research by Staniškienė and Stankevičiūtė (2018) suggested that social sustainability assessments and indicators have not taken an employee-based approach but have focused on abstract statistical information like absentee rates that do not reveal employees' "attitudinal tensions". However, present research findings indicate a contrarian view in the leather industry. Indicators identified are employees centric and focus on assessing employee participation, diversity and equal opportunities, health and safety, employee development and satisfaction. Secondly, social innovation and CSR activities such as fundraising for community development efforts identify the community as key stakeholders. Thirdly, as some authors argue the environment (planet) as stakeholders to consider during sustainability implementation (Gibson, 2012; Kolk and Pinkse, 2007), this research proposes that animals (as a subset of the environment, whose hides are processed into leather) could also be viewed as key stakeholders for social sustainability assessments.

In conclusion, the practices and indicators identified in this section are in no way final but act as a guidance and foundation to build on, to reach a consensus on social sustainability assessment across the whole leather SC. The similarity between indicators used among supply chain actors could significantly impact the progress of social sustainability assessment in the leather industry. This inference is supported by Popovic *et al.* (2018), who noted that the similarity of indicators across different SC actors could enable the comparison of performance

among actors. It could also translate that a unified set of social sustainability indicators can be adopted for the whole leather supply chain.

Indicators are found not to be selected or predicted from the sustainability drivers, as suggested in the initial conceptual framework. Instead, a top-down approach to indicator selection is seen to be widely adopted by the leather related companies that participated in the study (through primary and secondary research). The top-down approach indicates a selection of indicators from available sustainability indicator frameworks like the Global Reporting Initiative (GRI). According to Mori and Christodoulou (2012), the approach allows for objectivity and a means through which comparisons between companies can be made.

Finally, drivers are found to be directly related to and can explain the implementation of social sustainability practices. These drivers are presented and discussed.

4.3.5 Drivers of Social Sustainability Practices

This section focuses on the factors that drive the implementation of social sustainability practices in the leather supply chain, as identified from interview participants and sustainability reports (depicted by the shaded area in **Figure 4-6**). The definition of sustainability drivers is presented from the supply chain actors' perspective, and the nature of these drivers is also explained. Primarily, the aggregation of drivers identified is presented here on an "across-cases" basis, complementing the "within-case" basis discussion earlier presented. Findings and discussion address the fourth research objective - Empirically determine the key social sustainability drivers among leather SC actors.

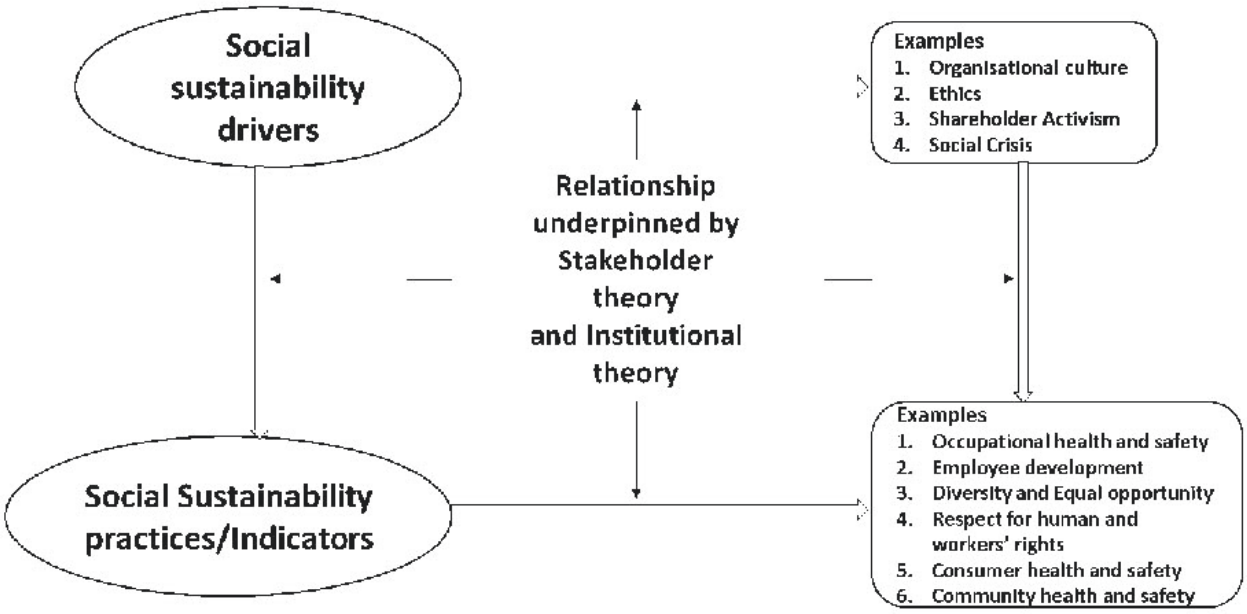


Figure 4-6: ICF - Focus on Social Sustainability Drivers among Leather Supply Chain Actors (Source: Developed by Researcher)

Sustainability drivers were understood by research participants as influencers, goals and ambitions that lead to the implementation of sustainability practices. Explicitly, drivers were defined as thus:

"A sustainability driver (customer, society, environment, ...) directly and indirectly sets the direction for our sustainability strategy" (Tannery 3, GDS)

"...the driver is, let's say it is more influencing what we do now." (Chemicals 1, HCS)

A limitation of theory encountered during the research was the definition of sustainability drivers. In the literature, sustainability drivers were referred to as sustainability enablers, sustainability practices (Munny *et al.*, 2019), or motivating factors (drivers) that influence sustainability implementation (Abdul Moktadir, Rahman, Rahman, *et al.*, 2018). On the leather industry side, sustainability drivers were seen as motivating factors or influencing factors, aligning with Moktadir *et al.* (2018), rather than enablers (which could usually be policies or tools or personnel that makes sustainability implementation possible). This lack of clarity on the definition of drivers in the literature meant it was necessary to understand the meaning of drivers from the viewpoint of leather supply chain actors and companies to develop the resulting theoretical framework.

As the participants noted (quoted above), these drivers influence the execution of sustainability actions and are essential to guide their implementation processes. This finding conforms to previous literature on the definition and role of identifying sustainability drivers. In a non-

specific context, drivers are defined as "motivators or influencers that encourage or push organisations to implement sustainability initiatives throughout the supply chain" (Saeed *et al.*, 2017, p.2). A recent leather related study by Moktadir *et al.* (2018) also defined drivers as factors that influence organisations' decision-making towards operational and organisational sustainability. These definitions suggest a causal relationship between two entities: influencing factors (drivers) and executed actions (sustainability practices – in this case, social sustainability practices).

In determining the type of social sustainability drivers (as identified during the analysis process), it was deduced from the findings that external and internal drivers could explain the nature of the driver and what a driver relates to. This finding confirms the proposition that drivers can assist in explaining the implementation of sustainability practices (Saeed and Kersten, 2019; Perrini and Tencati, 2006). For example.

"Professional training for members of the corporate area is centred on courses geared towards the enhancement of relational and behavioural skills aimed to achieve more effective management of operational complexities." (MANRET D, Report)

"We needed to attract good people. No doubt that the training schemes and the apprenticeships and having a sustainability philosophy has attracted the right kind of people." (Tannery 1, SID)

In terms of the nature of external drivers, they could be coercive, mimetic and normative, explained by the institutional theory (Dubey *et al.*, 2015). External drivers originate from outside the organisation that leads organisations to react and influences the decisions of companies to implement social sustainability practices. It was found from the study that some drivers (usually external) are typically associated with the implementation of the broader social sustainability practices of related companies, as shown in **Table 4-13**.

On the other hand, internal drivers are found to be capable of influencing the implementation of specific social sustainability practices, as shown in **Table 4-14.** Internal drivers can relate to corporate strategy, organisation culture, organisation resources, and organisation characteristics, also explained by institutional theory (Saeed *et al.*, 2017). Internal drivers are factors within the organisation that encourage management to take proactive steps to implement social sustainability practices (Saeed and Kersten, 2019). **Figure 4-7** illustrates the

breakdown of internal and external drivers adapted to this study from Saeed and Kersten (2019).

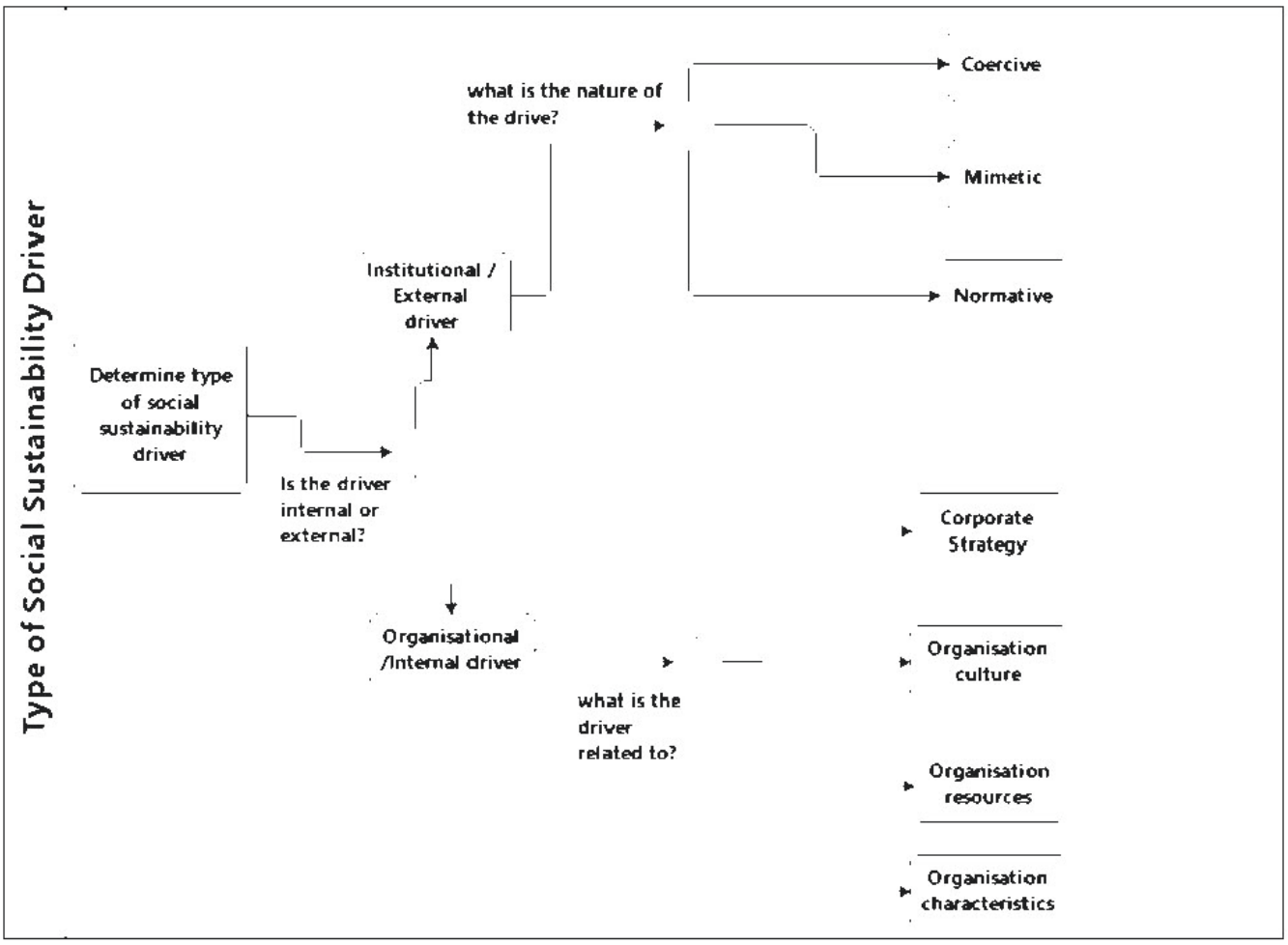


Figure 4-7: Diagram showing the Nature and Types of Drivers that Influence Social Sustainability Practices (Adapted from Saeed and Kersten (2019))

Pivoting from the above figure, **Table 4-13** below shows the drivers (key themes adopted in data analysis) that generally or broadly influence the implementation of social sustainability practices in companies within the leather supply chain, as identified from the interviews and sustainability reports. The table also reveals the type of stakeholders that catalyse each driver. A table that shows the evidence of these drivers is represented in **Appendix 4**.

Table 4-13: Drivers that generally Influence Social Sustainability Strategy (Source: Developed by Researcher)

Driver	Type of driver		Stakeholder Involved
	External (Institutional)	Internal (Organisational)	
Government demand	Coercive		Government
Meeting standards, regulations and legislation			Regulatory bodies
Meeting supplier requirements			Suppliers
Fulfilling customer needs	Normative		Customer, customer's customer
Reacting to the growing public interest			General Public
Market positioning and size	Mimetic		Broader market
Mirroring competitors			Competitors
Driving competitive advantage		Corporate strategy	Managers/Owners/Employees /Shareholders
Economic viability			
Sustainability orientation			
Attracting best talents		Organisational resources	
Family business		Organisational characteristics	
Market Positioning of the company and Size			
Future Success		Organisational culture	
Intrinsic motivation			

Coercive drivers encourage leather-related companies to adopt social sustainability practices to avoid government authorities' sanctions and reduce risks to businesses, conforming to literature (Ahmed *et al.*, 2019). Leather companies can be compelled to engage with social sustainability practices to meet defined regulations by the industry, certification bodies, and legislative bodies. For example, some chemical companies in the study subscribe to the "Responsible Care" charter, which aims toward progress with safety and environmental

protection. Tanneries and manufacturing/retail leather companies are also seen to collaborate with bodies such as the Worldwide Fund for Nature (WWF) to ensure their suppliers uphold animal welfare principles.

Related certifications that obligate (directly or indirectly) leather SC actors towards social sustainability include Zero Discharge for Hazardous Chemicals (ZDHC); the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) for chemical companies, Occupational Health and Safety Assessment Series (OHSAS 18001), and the ISO 45001 for Occupational Health and Safety management among others (Śmiechowski and Lament, 2017). Leather SC actors in the study also indicated that they respond to supplier requirements regarding their social actions; otherwise, they could lose some business if continued under/non-compliance to requirements.

Participants also noted that social media's growing influence has increased awareness of customers towards social issues, which has translated to needs that are essential for leather businesses to meet if they are to expand their customer base and avoid business risks. These drivers are not coercive, but leather supply chain companies can take actions because it is the "right thing to do". These are called Normative drivers (Sarkis *et al.*, 2011).

Mimetic drivers originate from market forces such as competitors and market positioning, which influences leather organisations towards social actions. Specifically, pressure usually emanates from high-end leather consumers who have more significant opinions about the leather materials source and are more conscious about what they wear or use. Evidence of this is seen from some of the interview participants:

"Most of our customer base is on the very high level of the market segment where the price is important but not the only deciding factor. No one is prepared to pay more for a green or sustainable product. Customers now expect the product to be sustainable. There is no premium on sustainable products." (Tannery 1, SID)

The above suggests that consumer behaviour influences social sustainability (and sustainability) actions of leather-related companies. This finding is contrary to findings by Ciliberti *et al.* (2008), who found that consumer behaviour is not a CSR driver and that companies engage in CSR activities because of owners' personal values. Similarly, mimetic drivers also stem from leather SC actors imitating their competitors, as evidenced below:

"...And as employees, we are customers of companies like ASOS, customers of Marks and Spencer's and if we can see what they're doing, it does make you question your own business." (MANRET 2, GSM)

Furthermore, the analysis of data revealed that sustainability drivers that motivate companies to implement social sustainability actions can originate internally within the companies due to corporate strategies that can lead to competitive advantage, economic viability and sustainability orientation. To acquire sound organisational resources, leather related companies are reported to engage in social practices with the intention to lure the best talents and employees. This finding is supported by literature that employees have been proven to be inclined towards companies that take the issue of health and safety, diversity, inclusion and equal opportunities seriously (Saeed *et al.*, 2017).

Furthermore, organisational characteristics such as the companies' position and size in the supply chain and being a family business can influence social sustainability implementation. Several of the companies represented in this study were family-owned businesses that have existed over multiple generations. Hence, the inclination to engage in practices that preserve the business's existence for further generations and long-term success can motivate socially responsible practices. The below comment provides evidence:

> *One of the things I quite admire by the company is I think the family principles and the Quaker values have been..., remember, as I said, we're still a family-owned company. So, there's been a push within the company, which is not being consumer-led but to ensure that we do the right thing. (MANRET 3, GHM)*

This comment represents an intrinsic motivation to do the "right thing", which can result from underlying organisational culture and management/employees' orientation. In the case of organisational drivers, relevant stakeholders are usually within the organisation and could include top management, owners and employees. Although these general drivers help explain the broader reasons organisations implement several social sustainability practices, they can also explain the rationale behind economic and environmental sustainability initiatives (Dubey *et al.*, 2015; Saeed and Kersten, 2019).

The second main category of drivers identified is the specific drivers, which relate directly to the implementation of specific social sustainability practices. These specific drivers were explicitly identified from the company sustainability reports rather than from the interviews. They identified specific drivers that are shown in **Table 4-14** below.

Table 4-14: Internal Drivers that Influence Specific Social Sustainability Decisions (Source: Developed by Researcher)

Driver	Type of driver	Corresponding social practice	Evidence
Achieve efficient management of operational capabilities	Corporate strategy	Education and Training	*"Professional training for members of the corporate area is centred on courses geared towards the enhancement of relational and behavioural skills aimed to achieve more effective management of operational complexities." (MANRET D, Report)*
Ensure present and future success		Education and Training	*"Our current and future success depends on the qualification and motivation of our employees. The education and training of our employees is thus a high priority. We offer various education and training modules for our employees, thus investing both in their and our future." (MANRET A, Report)*
Evaluating and preventing risks		Health and Safety	*"To ensure continued improvement in the evaluation and prevention of risks, Stahl tracks indicators on safety." (Chemical C, Report)*
Strategic advantage		Diversity and inclusion	*"We regard diversity as a strategic advantage" (Chemical A, Report)*
Filling talent gap and secure skilled workers	Organisation resources	Education and Training	*"We needed to attract good people. No doubt that the training schemes and the apprenticeships and having a sustainability philosophy has attracted the right kind of people." (Tannery 1, SID)*

Driver		Corresponding social practice	Evidence
Growing leadership talent	Organisation resources	1. Diversity and inclusion 2. Education and Training	*"Consistent with its strategy of growing our leadership talent, diversity and inclusion principles are also embedded within the core leadership & management training programs to encourage managers to demonstrate these principles as part of their leadership behaviour" (Chemical C, Report)*
Longer career for employees		1. Health and Wellbeing 2. Education and Training	*"In order to consciously promote careers, we define individual training requirements worldwide at least once a year." (Tannery A, Report)*
Possibility of working in international sites		Education and Training	*"They offer the possibility of learning or working temporarily or permanently at one of our international sites later on." (Tannery A, Report)*
Preserve knowledge and expertise		Education and Training	*"Preserving and developing savoir-faire, its acquisition and ensuring it is passed on to all our employees whatever their occupation (craftsmen and women, salespeople, etc.) is essential for our long-term development on sustainable foundations." (MANRET D, report)*
Shift in employee demand		Work-life balance	*"I think there has been a shift in employee demand and people are not particularly driven by financial return anymore. They are more interested in work life balance and clear conscience." (Tannery 1, SID)*

Driver	Type of driver	Corresponding social practice	Evidence
Nature of the business in chemicals	Organisational characteristics	Health and Safety	*"As a manufacturer of chemical products, our company considers health and safety to be its primary responsibility" (Chemical C, Report)*
Developing employee health and safety	Organisational culture	Health and Safety	*"Another part is developing health and safety of employees. The wellbeing agenda has dramatically improved in the last three years. That reflects the younger generations that are part of the workforce" (Tannery 1, SID)*
Forge close relationships with diversified customer base		Diversity and inclusion	*"The Group firmly believes in the value of diversity as inspiration for the business and as a form of cultural richness, well-being and creativity, which enables it to forge close relationships with a diversified, global customer base." (MANRET D, Report)*
Foster intercultural understanding		Education and Training – (International training and exchange programme)	*"Intercultural understanding Company policy in the form of standardized documents – prepared in accordance with quality management guidelines – ensures intercultural understanding across facilities. Selected employees from the different facilities complete an international training and exchange program." (MANRET A, Report)*
Aligning with corporate culture		Employee feedback and contribution	*"As part of our corporate culture, we regularly ask our employees for feedback. To this end, we use a wide range of surveys to allow feedback relating to the satisfaction and commitment of the various employee groups." (Chemical A, Report)*

The relationship between specific drivers and social sustainability practices can be interpreted by inserting connecting phrases (such as "to", "because (of)", "due to", "to foster") behind each driver and connect this to relevant practices. For example, "*due to the strategic need to keep and improve corporate culture, we seek employee feedback and engagement, which can lead to certain desired outcomes in organisational goals.*" Identifying the underlying drivers and relevant stakeholders behind social sustainability practices can assist leather supply chain actors to improve discussions and execution of their social practices within the organisation and among its suppliers (Perrini and Tencati, 2006; Saeed and Kersten, 2019).

The findings from this study extend from previous similar studies that have investigated sustainability drivers in some forms but not explored the implication of these drivers on practices. For example, Moktadir, *et al.* (2018) identified drivers influencing sustainability implementation, such as the knowledge of management about sustainability and circular economy; awareness of customers; commitment and leadership from top management; government legislation and support. Also, Wahga *et al.* (2018) identified drivers such as customer requirements and industry dynamics, regulations, institutional sponsors, peers' effect, sustainability-driven values, competitive gains, symbolic capital.

In summary, through the findings and discussions, the relationship between sustainability drivers and practices have been established to be a direct one. On the other hand, the relationships between drivers and indicators are not immediately direct since sustainability practices need to be implemented before they can be measured. Pham and Smith (2014) discussed the relationship between sustainability drivers and certain indicators in the Agricultural Industry but did not discuss the practices as a precedent to indicators. Hence, this study's key finding is that the direct relationship of drivers to practices and indirect relationship to indicators fills a knowledge gap in the leather industry on social sustainability. This is further explained in the next section and answers the final research question.

5 Theoretical Framework establishing the relationship between Social Sustainability Drivers, Practices and Indicators

This section presents the relationship between social sustainability drivers, practices and indicators (depicted by the shaded area in **Figure 5-1**), leading to the development of a new theoretical framework supported by empirical data from the study.

The role of stakeholder and institutional theory in understanding how these drivers influence social sustainability practices and indicators are discussed. The discussion addresses the fifth research objective - develop a theoretical and empirically supported framework establishing the relationship between sustainability drivers, practices and sustainability indicators.

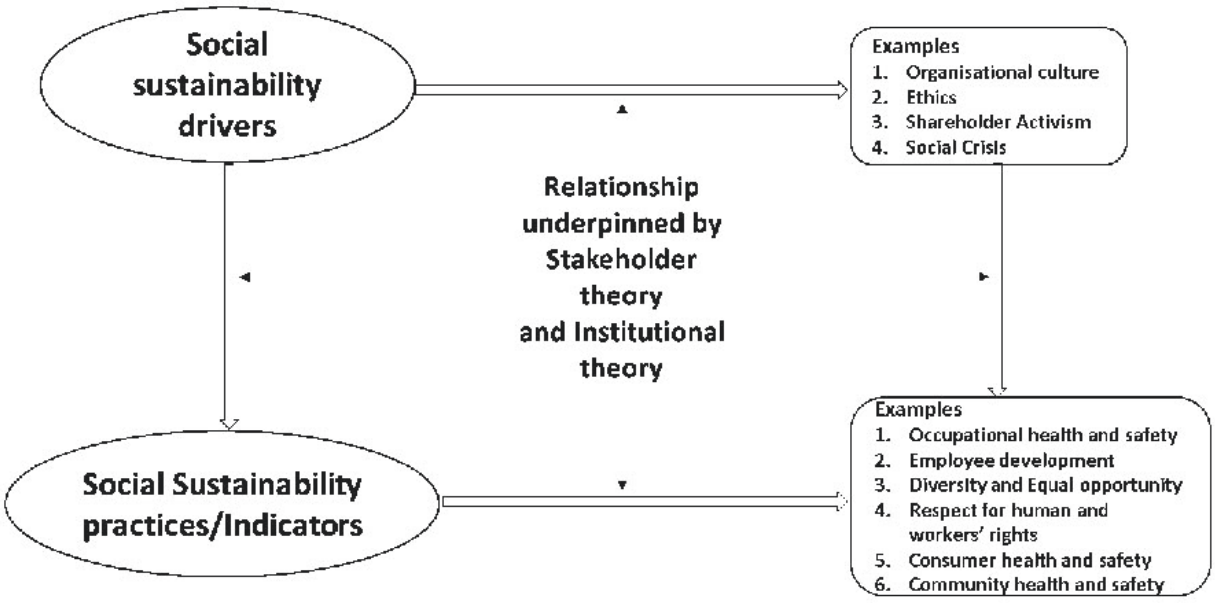


Figure 5-1: ICF - Focus on Relationship between Social sustainability drivers, practices and indicators (Source: Developed by Researcher)

This initial conceptual framework from the literature review established a relationship between drivers, practices and indicators, but the nature of this relationship was not fully understood. Therefore, a new theoretical framework shown in **Figure 5-2** emerged from the discussion, which explains the direct and indirect nature of such a relationship between the three entities. As explained earlier, the assessment of progress (using indicators) on social sustainability practices usually begins with identifying and implementing relevant practices to the organisation. Hence, in addition to discussing the relationship between the drivers and practices in the tables above, the relationship between drivers, practices and indicators is discussed. With the framework designed with flow chart diagrams, it is important to establish that the framework does not exclusively follow flow chart design conventions. The diagrams (**Figure**

4-7. **Figure 5-2**, **Figure 5-3**, **Figure 5-4**, **Figure 5-5** on page 155, 166, and 168, 169, and 170 respectively) represent the study's key findings, best illustrated with flow chart diagrams. The framework developed is named the Stakeholder-Drivers-Practices-Indicator (SDPI) Framework of Social Sustainability Implementation and is explained below.

5.1 Stakeholder-Drivers-Practices-Indicators (SDPI) Framework of Social Sustainability Implementation

The development of the framework is predicated on some assumptions. First, that actors in the leather supply chain are stakeholder oriented. That is, these organisations identify and respond to stakeholders' requirements. This assumption is predicated on the finding by Perrini and Teneati (2006, p.298) that *"a sustainability-oriented company is fully aware of its responsibilities towards the different stakeholders and adopts methods and tools that allow it to improve its social and ecological performance"*. Secondly, as an entity that seeks to implement social sustainability across its operations and supply chain, the company sees itself as its stakeholder since the success of its enterprise determines its survival.

In **Figure 5-2** below, the framework contains several processes that explain the relationship between social sustainability drivers, practices and indicators. The process starts with the demands and requirements of business stakeholders affected by and themselves affect the operation of leather-related companies ("Process Λ"). Specifically, catalysing respective social sustainability drivers are stakeholders, who can be external or internal. An interview participant defined stakeholders as thus:

> *"Our main stakeholder groups are customers, capital market representatives, suppliers, the media, and representatives from politics, public authorities, and non-government organisations (NGOs). We engage in intensive dialog with all of these groups. Firstly, to promote mutual understanding and build trust with an open and constructive exchange of views. And secondly, to continuously identify topics that are important in view of our environment and our corporate responsibility." (Chemical A, report).*

Internal stakeholders include employees, investors, managers, founders and owners, while external stakeholders include NGOs, government, regulatory and public authorities, competitors and communities (Walker *et al.*, 2008). These stakeholders usually have demands and requirements that relate to business operations and are communicated to the company through various channels such as direct interaction with suppliers, media, government legislation, competitor activities, certification bodies, internal company communications, etc. (Foerstl *et al.*, 2015). These demands and requirements are then interpreted and translated as

sustainability drivers, as they push or pull leather companies to take actions relating to social sustainability ("Process B").

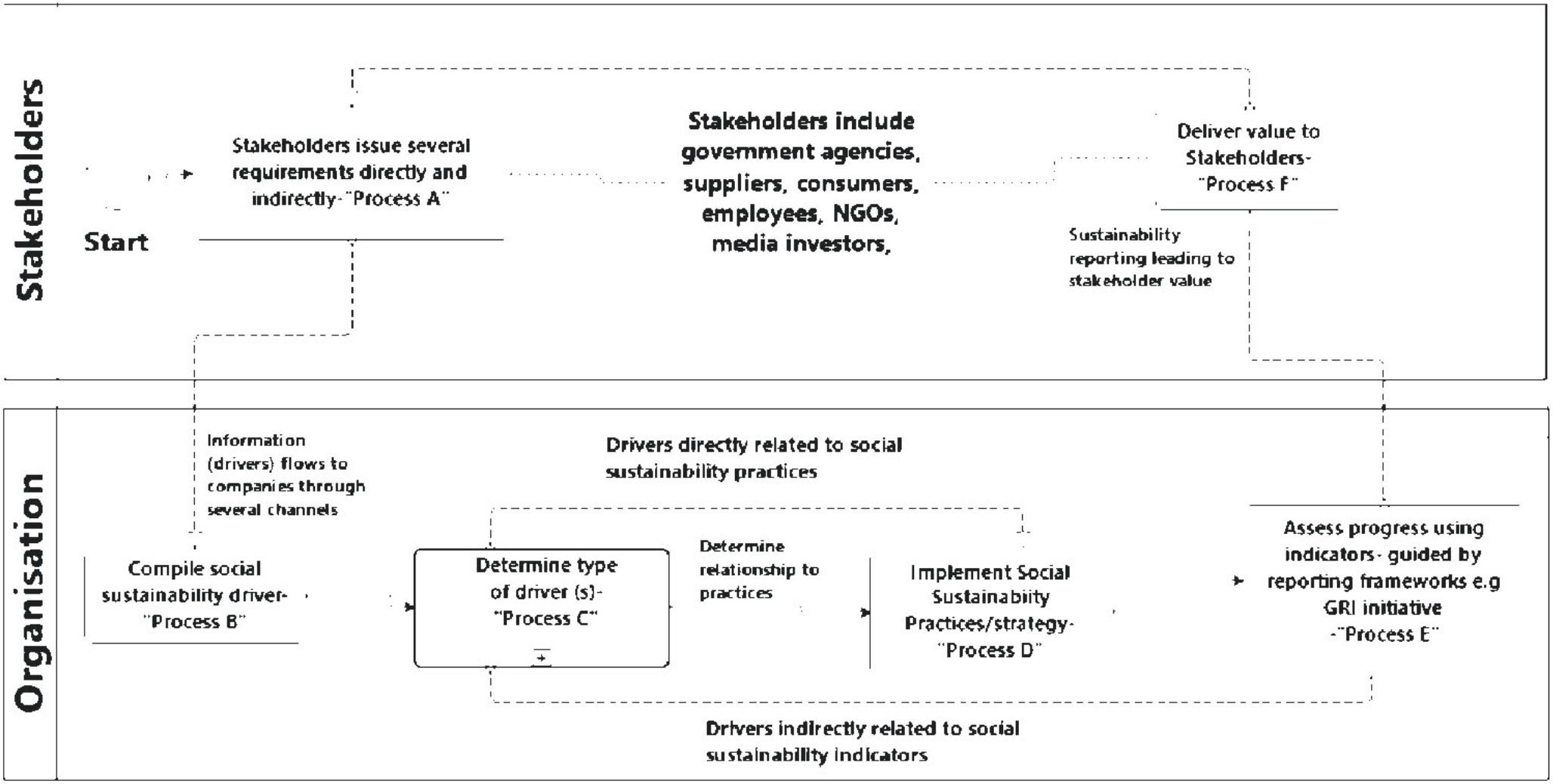


Figure 5-2: Theoretical Framework showing the Relationship between Social Sustainability Drivers, Practices and Indicators (Source: Developed by Researcher)

At "Process C", categorising the type of drivers breaks down into "sub-processes" represented in **Figure 5-3** below. Here (as noted earlier), the drivers compiled can be classified into two main types – internal (institutional) and external (organisational) drivers. An institutional driver emanates from external stakeholders to the business, and they can be coercive, mimetic or normative. The Institutional theory and Stakeholder theory underpin institutional drivers. Sarkis *et al.* (2011) confirm the inter-relationship between Stakeholder and Institutional theory, stating stakeholders' close alignment with social institutions.

Institutional theory assists in understanding the nature of the social sustainability drivers (Dubey *et al.*, 2015), while stakeholder theory assists in understanding the sources of those drivers in the leather SC (Ahmed *et al.*, 2019). On the other hand, organisational drivers (internal driver) can be related to the company's corporate strategy, organisational culture, organisational culture, and organisational resources (Saeed and Kersten, 2019). After categorising these drivers based on their characteristics, it can be further determined how these identified drivers are generally or specifically related to recognised social sustainability practices, as shown in **Figure 5-4** and **Figure 5-5**.

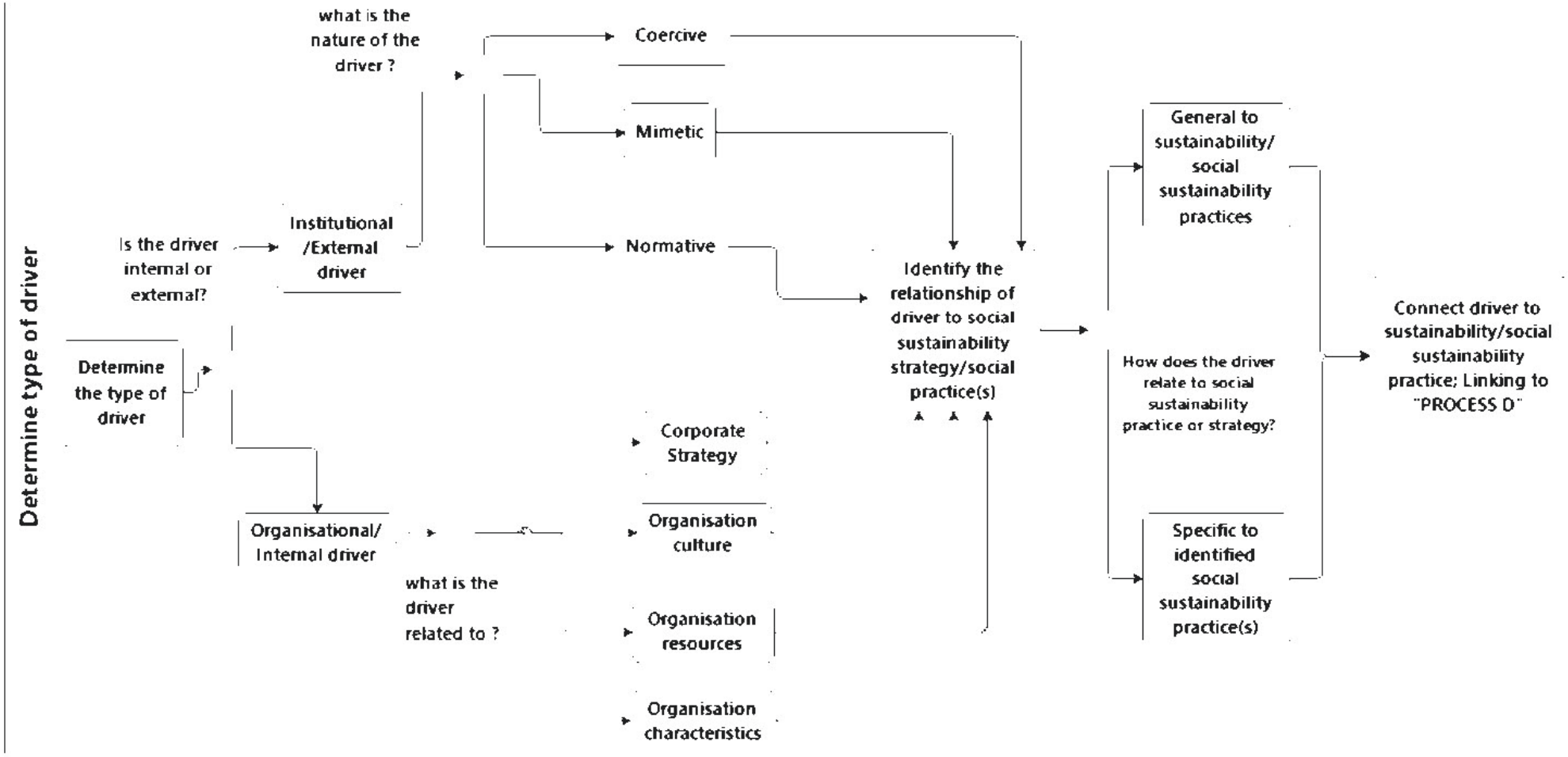


Figure 5-3: Process C Breakdown - Direct relationship between SS Drivers and SS practices (Source: Developed by Researcher)

Figure 5-4 below further explains and provides examples of how external drivers could lead to implementing several social sustainability practices. As seen below, meeting required operational standards, regulations, and legislation can be a coercive factor that influences leather actors to implement social sustainability practices such as upholding labour standards, ensuring health and safety guidelines are met in tanneries. manufacturing and chemical handling. Furthermore, normative pressures could also influence leather companies to do what is "right" by the society and employees, thereby solidify companies' legitimacy.

Furthermore, mimetic factors that influence leather supply chain actors to implement social practices stem from actors or competitors imitating each other. Hence, these mimetic pressures could translate to a company imitating another company with more significant implementation and success as a benchmark for their social sustainability and/or sustainability performance.

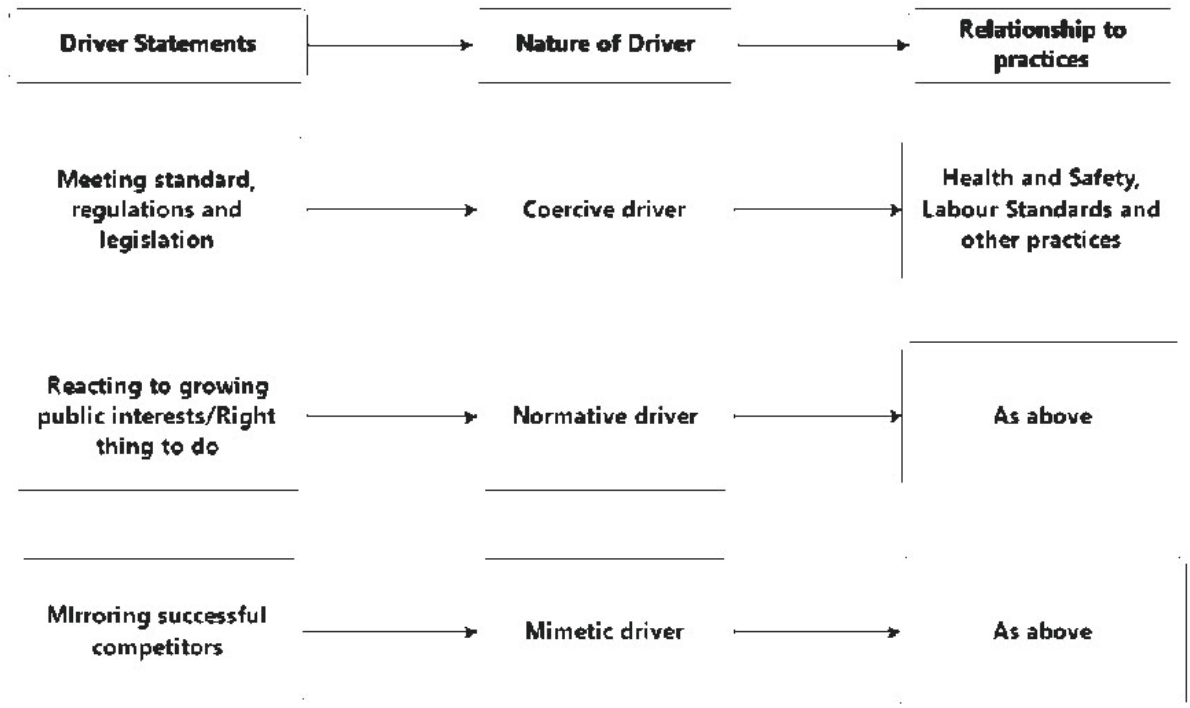


Figure 5-4: Example of how External Drivers relate to overall Social Sustainability Practices: the relationship between Process C and Process D (Source: Developed by Researcher)

On the other hand, Internal drivers were found to be more related to specific social sustainability practices, as shown in **Figure 5-5**. The nature of the business and position in the supply chain (business characteristics) could influence how much focus is dedicated to a particular social practice. For example, due to the nature of the business of chemical companies that supply chemicals to the tannery industry, it was noted that chemical companies should give necessary education and guidance (health and safety-related) to their suppliers on the best way

to handle supplied chemicals. Similarly, tanneries, because of the industry's nature, are usually obligated to implement effective health and safety guidelines for employees in handling leather production raw materials at the workplace (Brugnoli *et al.*, 2013).

To forge close relationships with a diversified customer base (as part of company culture), diversity and inclusion practices (such as employees with age group, gender, nationality etc.) could be one of the implemented practices (Missimer *et al.*, 2017). To develop employee capabilities, achieve a longer career for employees and grow leadership talent, leather companies can also show interest in education and training for employees and foster employee engagement.

The reports also highlighted that employees' demand regarding work conditions has increasingly shifted from a monetary reward to values such as work-life balance or working from home, again conforming to literature (Zheng *et al.*, 2015; McCarthy *et al.*, 2010). Similarly, as the tannery, manufacturing and retail sectors seek to prioritise preserving the *savior-faire* of the industry and attract top young talent, social practices such as the organisation of apprenticeship programmes, work-life balance initiatives, and attractive working hours can be crucial.

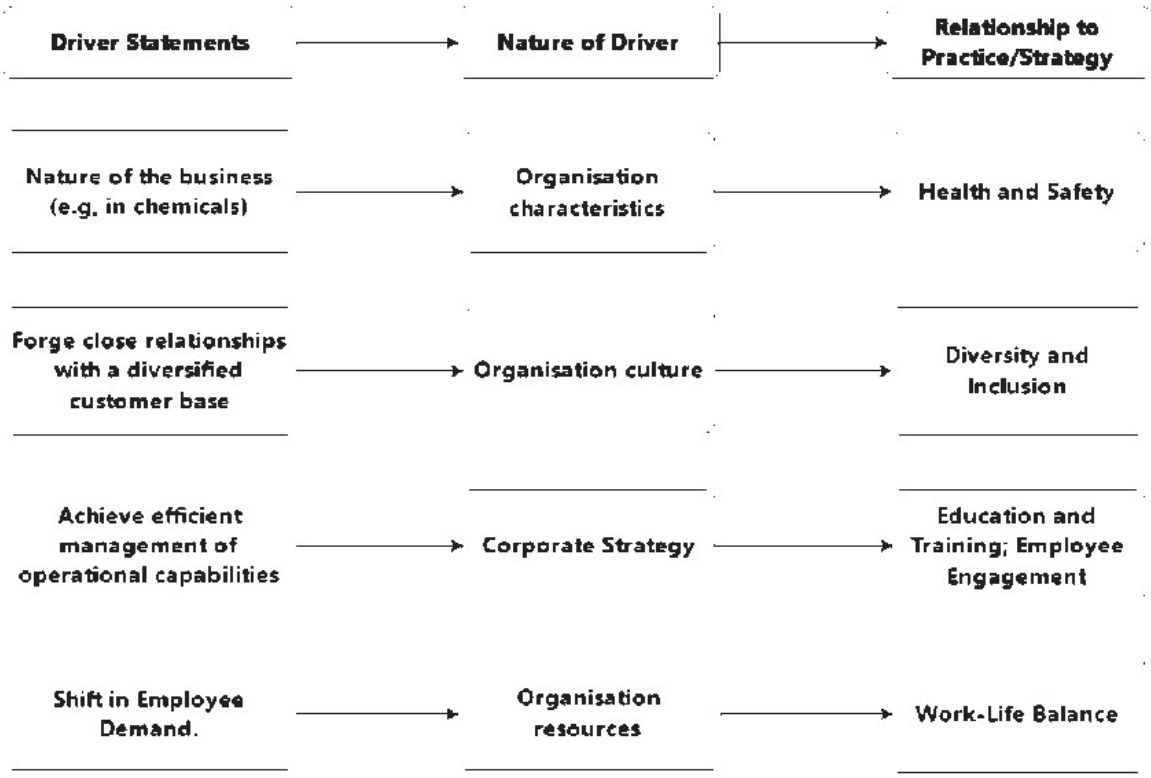


Figure 5-5: Example of how Internal Drivers relate to Social Sustainability Practices: Relationship between Process C and Process D (Source: Developed by Researcher)

Upon implementation of social sustainability practices ("Process D") – now referring back to **Figure 5-2**, companies, in turn, assess the progress and outcomes of implementation using defined indicators, guided by selected assessment frameworks ("Process E"). The frameworks identified in the sustainability reports of companies involved in the study include the Global Reporting Initiative (GRI), Carbon Disclosure Project (CDP), Dow Jones Sustainability Index (DJSI), among others. Reporting sustainability performance through several means such as sustainability reports, annual reports and company websites presents to relevant stakeholders what the company is doing towards addressing sustainability concerns in its supply chain and its progress towards implementation. This sustainability information could then represent value to the business stakeholders and transmitted through sustainability or annual reports ("Process F").

As shown in **Figure 5-3** above, through the direct relationship between social sustainability drivers and practices, it can be inferred that social sustainability drivers also have a relationship with social sustainability indicators, which is indirect. Theoretically, identifying these drivers could lead leather SC actors to take social actions necessary for the business to avoid risks, survive, compete, and thrive. The theoretical framework represents a novel approach in developing the body of research on social sustainability, especially in the leather industry, where current research is inclined towards economic and environmental sustainability.

5.2 Conclusion

The key findings suggest an association between sustainability drivers, practices, and indicators represented in the novel theoretical framework developed in **Figure 5-2**. Thus, the five research objectives in Chapter 1 were achieved. The theoretical framework designed and supported by empirical data as well as underpinned by established theories attained the aim of the research, which was to explore the relationship between social sustainability drivers, practices and indicators in the leather industry.

To date, there has been no research that studies social sustainability in the depth that this research has, in the context of the leather industry. Secondly, no research exists that explores the relationship between sustainability drivers and specific social sustainability practices. Hence, this study's findings add to knowledge in both the leather industry context and broader social sustainability literature.

The key social sustainability practices and indicators were identified from both interviews and secondary reports to achieve the first objective. This study represents one of the few (if any)

studies that address the depth of social sustainability practices in the leather industry and how these practices are implemented in companies (and their supply chain). Higher importance was placed on health and safety as the key social sustainability practice and enabler in the leather industry in the existing literature. However, the discussion and level of detail obtained about other key social sustainability practices in the leather industry indicate that the current social sustainability literature, which has almost exclusively focused on health and safety, does not reflect the real-life progress.

Hence, the understanding of other discussed social sustainability practices (such as the development of human capital; encouraging employee engagement and participation; promoting health and safety practices; rewarding employees for performance; commitment to human right principles; promoting diversity and inclusion; meeting labour standards; and upholding animal welfare principles) can assist management in the leather industry to improve the social sustainability performance of the supply chain.

For the second objective, the indicators identified were placed in 6 key categories: diversity and equal opportunities; development of human capital; employee engagement; health and safety; human rights practices; and labour/employee-related issues. The generality in the nature of the social sustainability indicators could suggest that they can be adapted to use by the entire leather supply chain actors instead of using different indicators for each supply chain actor. Hence, the aggregation of current several social sustainability assessments into one assessment that can be used by all supply chain actors is an important step forward towards facilitating social sustainability and driving assessments towards standardisation.

For the third objective, it was seen that leather supply chain actors, at all levels, are integral to ensure social sustainability in the leather supply chain through a range of supplier development activities. These activities are fundamentally mutual among key leather supply chain actors and usually geared towards the capability development of suppliers towards sound socially acceptable and sustainable operations. However, certification/auditing organisations in the leather industry are perceived as the greatest force to drive social sustainability implementation and measurement. Hence, they can play a central role in ensuring the progress of social sustainability discussions in the industry by including robust social sustainability metrics in new or already existing assessment tools (that are predominantly environmental sustainability based).

For the fourth objective and fifth objective, this study uniquely applies the intersection of the institutional theory and stakeholder theory to explain the nature of drivers that influence social sustainability implementation decisions in the industry. By applying these theories to explain the relationship between social sustainability parameters such as drivers, practices and indicators, this study addresses a knowledge gap on how the understanding of drivers can lead to implementing social sustainability practices. This also addresses the gap in knowledge identified by Saeed and Kersten (2019) and Perrini and Tencati (2006). Thus, related findings can provide managers and companies in the leather industry with a further understanding of why it is important to implement specific social sustainability practices and potential benefits after implementation. The findings here fit within the abductive approach taken in the study. The study proceeded from the incomplete observations about the relationship between drivers, practices and indicators of social sustainability to providing (with evidence) the possible iterations (which may differ from one company to another) of how drivers influence companies to implement certain social sustainability practices.

The credibility of the findings and data was ensured following a range of methods. First, two data sources were used to provide data triangulation towards increasing data credibility. The primary mode of data collection was through semi-structured interviews with senior management of participating companies. The information received from the interview participants was verified through the corresponding sustainability report and vice-versa. Complimentary to these two-way data source validation, leather-related certification organisations were interviewed to corroborate the information received from other supply chain actors related to social sustainability practices, drivers and indicators. The researcher suggests that the methods to verify and improve the validity of data were appropriate given the underexplored and under-discussed nature of the leather industry's social sustainability topic.

Member checks were also carried out during and after data collection. Transcribed data was sent back to interview participants to clarify the accuracy of the data provided. Few interviewees adjusted their interpretation, but largely, the account given by interviewees during the interviews remained the same. It is believed this stability of account was pronounced because interviewees provided company related data with respect to their company's efforts towards social sustainability and not their personal accounts.

The study's initial conceptual framework was presented to an audience of research experts both in the field of sustainability and outside of it, before data collection. After data collection and

analysis, the framework was refined through field data, yielding a theoretical framework presented to a team of academic experts (with expertise both in the leather and broader sustainability field) for validation. The implications of the results and discussion are presented in the following chapter.

6 Contributions and Implications to Theory and Practice

The purpose of this study was to explore the relationship between Social Sustainability (SS) drivers, practices and indicators amongst leather supply chain actors in Europe. This led to the development of a theoretical framework that explains this relationship, guided by institutional and stakeholder theory. The research aim was achieved through a combination of an initial literature review to identify the knowledge gaps on SS in the leather industry. This was followed by interviews with key supply chain actors in the leather industry and analysis of secondary data in the form of sustainability reports of companies in the leather chemicals, manufacturing/retailers and tanneries. The rationale behind the application of the two theories mentioned and the approach towards data used became strengthened as the research progressed.

The study discussed various means and strategies through which leather supply chain actors implement SS practices within the company and their supply chain. It represents a first attempt to aggregate practical steps that leather-related companies take towards implementing SS practices into their business strategy, hence, providing a useful knowledge resource for related sustainability/CSR managers on their company's sustainability journey.

The results from the study contribute to SS knowledge in the leather industry, which has lagged environmental sustainability literature considerably over the years. Specifically, this section of the report discusses the key contributions and implications of the research findings to theory and practice.

6.1 Contributions and Implications to Theory

6.1.1 The application of the Institutional and Stakeholder theory to understand SS drivers

The application of both theories addresses the research gaps (that there have been few studies that addressed social sustainability under theoretical lenses) highlighted by Hussain *et al.* (2018), Saeed *et al.* (2017) and, Martins and Pato (2019). Development of this framework contributes to addressing the challenge and gap highlighted in the literature that even though previous researchers have applied theory to SSCM studies, many have presented their conclusions with little to no attempt to "explore concepts, relationships and make further predictions for theory building purposes" (Touboulic and Walker, 2015). It integrates the key components of institutional and stakeholder theory to explain SS in the leather industry (the first known study of this magnitude) to understand the factors influencing companies' SS

practices. This is important, given that participants in the study noted that some of the suppliers they deal with (not just in Europe but in other world regions) are sometimes conflicted in understanding why it is important to implement SS practices.

By connecting the different motivating factors and potential outcomes of these factors, it is suggested that there could be an increasing adoption and implementation of social sustainability practices if the key components of the institutional theory and stakeholder theory are considered. Hence, through the combination of and expansion of stakeholder theory and institutional theory, smaller actors in the supply chain and their larger counterparts can increasingly align stakeholder values and corporate strategy, resources, characteristics, and culture to SS activities.

6.1.2 The identification of the Drivers of SS in the Leather Supply Chain

This study introduces a new body of knowledge to the leather industry sustainability studies by identifying drivers that generally and specifically influence SS practices. This is a significant contribution to the knowledge and literature, which still mainly concentrates on environmental sustainability.

6.1.3 The recognition that Health and Safety is important but not "the" Enabler of Social Sustainability

The study finds a dichotomy of views relating to the importance placed on different social sustainability practices among leather supply chain actors. Chemical companies placed particular emphasis on health and safety, facilitated by education to their customers (especially tanneries) about safe chemical handling and use. On the other hand, other supply chain actors (tanneries, associations, manufacturers and retailers) did not place particular emphasis on Health and Safety. Although it was deemed important, it was not perceived as more important than the other social sustainability practices. For example, due to the higher level of ageing staff and expertise in the tanneries, significant attention is placed on preserving the *savior faire* of the industry. Hence, developing human capital is important to tanneries.

This finding introduces a different perspective to Munny *et al.* (2019), who indicated that Health and Safety is the key enabler for social sustainability in the leather footwear industry in Bangladesh - a developing country that has Leather as a core industry. The finding in the current study suggests that generalising health and safety as the critical enabler/practice for

social sustainability is not true nor applicable to all world regions. Furthermore, among supply chain actors, key practices of focus can differ, at least in the European leather industry.

6.2 Contributions and Implications to Practice

6.2.1 Stakeholder-Drivers-Practices-Indicators (SDPI) Framework can be a step-by-step guide for Leather Companies to implement SS Practices

The study engaged the two fundamental theories – stakeholder and institutional theory to develop a novel framework that provides a new perspective on how social sustainability can be operationalised. The SDPI framework provides a theoretical mechanism through which managers can increasingly integrate the requirements of internal and external stakeholders (translated into drivers) into the company's SS strategy and indeed, broader sustainability implementation strategies. Operationalising the SS concept has been noted to be a fundamental challenge to companies primarily due to actors who may not be aware of why it is important to implement or measure certain practices or how implementation can drive business growth. Therefore, the theoretical framework developed in **Figure 5-2**

above provides a mechanism that could help address these issues.

The developed framework can also guide organisations to focus on the core social practices relevant to their supply chain, customers, as well as organisation's short- and long-term goals. It can also serve as a strategic and communicative tool to managers, where they can increasingly explain to stakeholders and customers that a structured approach has been followed towards social sustainability implementation and assessments to create value.

6.2.2 Generality of Indicators and Practices can drive potential for a consensus Social Sustainability Assessment

By involving the key leather supply chain actors, this study was able to demonstrate that the social sustainability practices implemented among actors are mostly similar. The core practices identified include developing human capital, encouraging employee engagement and participation, promoting health and safety practices, commitment to human rights principles, promoting diversity and inclusion, and meeting labour standards. The exception to these core practices is animal welfare practice, which is predominantly applicable to tanneries, as they ensure their upstream suppliers uphold sound animal welfare practices (usually the five freedom principles).

The study also found that indicators used to assess implementation progress are also significantly similar among actors. The potential implication of the similarity in practices and indicators is that assessment bodies in the leather industry can resolve to create a consensus social sustainability assessment that is applicable to all actors in the leather supply chain instead of several assessments for different actors. However, it was noted that the agreement on what is acceptable in terms of social sustainability performance benchmark/standards is a critical issue for supply chain actors.

This is due to the proliferation of SS assessments used by focal companies- predominantly large manufacturers and chemical companies on their suppliers. Hence, supply chain actors, including relevant certification bodies, can explore the possibility of unifying and consolidating available SS assessments to create acceptable and supply chain-wide applicable metrics.

6.2.3 Supplier Development can be a crucial Social Sustainability Practice that activates other Sustainability Practices

The study proposes supplier development to be adopted as a necessary social sustainability practice due to its potential to assist supply chain actors in improving their practice and operations. SS practices (such as health and wellbeing, diversity and gender equality, adequate education, community development, employee engagement etc.) are usually implemented through the interaction and relationship between companies and their employees, suppliers and community. On the other hand, supplier development connects supply chain actors and partners to collaborate towards an improvement in supply chain operations.

For leather supply chain actors, these collaborations have either been direct (in the form of education and training, financial investments in suppliers and provision of technical assistance) or indirect (in the form of premise visits, audits, roundtable sessions, community development and supplier selection). These supplier development activities are all relationship-based and are inherently employees, organisations and community-centric.

Since supplier development activities often reflect "relationships", which are often social in nature, it is proposed that supplier development represents a SS practice due to the "relationship characteristics" it shares with SS. Hence, the researcher defines supplier development as an *"essential SS practice that involves the interaction and collaboration of supply chain actors in an industry, to develop capabilities that potentially lead to the achievement of the triple bottom line performance in a supply chain"*. For the leather industry and supply chain to improve its sustainability credentials, supplier development can play a crucial role. As such, it is suggested

that supplier development be included as a qualitative evidence-based assessment metric in the assessment protocol of relevant certification organisations, e.g., Leather Working Group, Sustainable Leather Foundation etc.

6.2.4 Leather Sustainability Certification Bodies and Associations have greater potential to improve Social Sustainability Assessments

The study identifies improvement in SS assessment among actors in the leather supply chain. It was found that presently, these SS assessment improvements (compared to environmental sustainability assessments) have been primarily driven by focal companies in the supply chain rather than certification institutions.

Supply chain actors noted that SS assessments are usually carried out by focal companies on their suppliers, potentially causing a proliferation of available performance measurement protocols. Participants in the study emphasised the influence of institutions (usually certification bodies) is immense in the industry, and without their push, SS discussions, implementation and assessment can continue to lag environmental and economic aspects.

6.2.5 Roles of Supply Chain actors towards achieving a Socially Sustainable Leather Supply Chain

The study shows specific roles leather supply chain actors play to ensure SS of the leather supply chain. These roles are sometimes distinct or shared among actors. For example, chemical companies in the supply chain perceive they have a vital role in the leather industry as "educators", an endeavour that they noted could represent a competitive advantage over companies that do not offer the same services to their suppliers. On the other hand, tanneries have a key role in connecting both upstream and downstream supply chain actors by communicating downstream actors' requirements to upstream actors, and vice versa, in a feedback loop.

Manufacturers/retailers act as supplier developers (committing resources to assist suppliers in improving their operations) while leather certification bodies and associations perform an overseeing role in certifying members on sustainability credentials and organising events that gather supply chain actors to discuss sustainability issues. Understanding these roles is crucial to achieving a socially sustainable leather supply chain because companies from the different tiers of the supply chain can increasingly collaborate and understand each other's roles towards a common defined goal.

6.2.6 Increased visibility of Social Sustainability discussions among Leather Supply Chain Actors beyond a focus on Regulations

While some companies still admitted the difficulty in assessments compared to economic and environmental sustainability, the under-exploration of SS in the industry seems to be due to other factors that are less discussed in the literature.

Some supply chain actors, especially the chemicals suppliers and tanneries, did not previously perceive the need to discuss their SS endeavours. This was because it is taken as a necessity (that is, it is a normal "thing" to do) from a business operations standpoint and due to strict regulations in the European Leather Industry. While the impact of the regulations is beneficial to the implementation of social sustainability practices, policymakers/industry experts need to ensure that the importance of implementing such practices is not lost in the enforcement and reaction to regulations on social sustainability.

6.3 Limitations of Research

The study was not without its limitations. This section discusses some of the limitations that were encountered during the research. These were related to the data and the difference in the interpretation of key terms between industry and researchers.

6.3.1 Relatively small sample size due to defined criteria

Given that only large companies (who clearly showed social sustainability endeavours) participated in the study, discussion, insights and results generated from the study are skewed towards larger supply chain actors. However, this skewness served the intended purpose of the study, which was to explore the "best practices" relating to a growing area of research (social sustainability) and knowledge generation.

As a result, the views shared by participants might not be reflected by smaller actors in the industry or supply chain. Hence, any generalisation of results should be approached with caution. Similarly, since top-level employees (like CEOs, Sustainability Managers) were interview participants, caution should be taken when attempting to generalise the understanding of social sustainability, drivers, practices and indicators to shop floor workers.

6.3.2 Transferability of results to operations outside Europe

As the leather supply chain is a global one, it is tempting to assume that the data and results from the current research might apply to similar actors in other parts of the world like Asia.

However, the values, social norms, culture, regulations, and enforcement of laws and regulations may influence what is acceptable and required in terms of social sustainability practices in different world regions. The issue of culture was stated as a challenge to implement social sustainability by research participants. This means what obtains in this study (a European context) may not obtain in other parts of the world. This might reduce the degree to which findings can be transferable or generalised.

6.4 Future Research

During the data collection phase of the project, Sustainability or CSR managers were prioritised as information sources: a decision guided by literature. However, several research participants indicated that, while they have given rich information on social sustainability information in their respective companies, the Human Resources Department (HR Manager) can also be a source of information specific to social sustainability practices and indicators. Future research can involve HR managers as sources of data on social sustainability, complementing sustainability managers and top executives in companies.

Due to the difference in interpretation of what sustainability drivers are, future research can attempt to reach a consensus view on the meaning of sustainability drivers. Also, to further explore the findings from the study, the framework developed can be quantitatively tested among practitioners to verify how the understanding of social sustainability drivers identified in the current study can assist leather supply chain actors in adopting social sustainability increasingly. Uncovering more drivers that influence social sustainability practices can also be a source of future research.

With the differences in the European leather industry characteristics to other world regions, the social sustainability motivators or drivers may differ. Hence, future research can investigate such drivers in research contexts outside of Europe. This can allow global stakeholders and policymakers related to the leather industry to understand their supply chain counterparts' social sustainability endeavours from different parts of the world. This can also lead to a tailored approach to facilitate the increased implementation and adoption among global supply chain actors.

In addition, a quantitative study can be conducted to assess how social sustainability motivating factors (drivers) relate and lead to the implementation of specific social sustainability practice (s). This can provide specificity and clarity on these relationships and also assist in understanding the rationale of companies towards social sustainability and related practices.

Such a study can extend beyond the leather industry to other industries. Furthermore, considering the proliferation of indicators (which are mostly similar) used by leather actors in measuring social sustainability performance, action research can be conducted to unify social sustainability indicators that will apply to all leather supply chain actors. This can allow for easy comparison and benchmark and performance among actors.

Using knowledge from the study, an assessment tool that investigates the "AS-IS" and "TO-BE" of social sustainability implementation for companies in the leather industry (and other industries) can be developed. Variables included in the assessment tool can include the degree of stakeholder integration, practices implemented, which and how indicators and used, and how performance is reported. As companies continue to pivot towards implementing social sustainability practices and measuring their progress, complexity theory can be applied to investigate how companies are reducing uncertainties during social sustainability integration into business activity.

References

Afzal, H., Khan, M.A., Rehman, K., Ali, I., Wajahat, S. (2010) Consumer's trust in the brand: Can it be built through brand reputation, brand competence and brand predictability. *International Business Research*. **3**(1), 43–51.

Ageron, B., Spalanzani, A. (2012) Sustainable supply management: An empirical study. *International Journal of Production Economics*. **140**(1), 168–182.

Ahi, P., Searcy, C. (2013) A comparative literature analysis of definitions for green and sustainable supply chain management. *Journal of Cleaner Production*. **52**, 329–341.

Ahi. P., Searcy, C. (2015) Assessing sustainability in the supply chain: A triple bottom line approach. *Applied Mathematical Modelling*. **39**, 2882–2896.

Åhman, H. (2013) Social sustainability – society at the intersection of development and maintenance. *Local Environment*. **18**(10), 1153–1166.

Ahmed, W., Najmi, A., Khan, F. (2019) Examining the impact of institutional pressures and green supply chain management practices on firm performance. *Management of Environmental Quality: An International Journal*.

Allied Market Research (2021) Leather Chemicals Market Size, Share | Industry Forecast, 2027. [online]. Available from: https://www.alliedmarketresearch.com/leather-chemical-market-A07692 [Accessed March 29, 2021].

Almahmoud, E., Doloi, H.K. (2015) Assessment of social sustainability in construction projects using social network analysis. *Facilities*. **33**(3/4), 152–176.

Andersson, A.J., Mackenzie, F.T. (2004) Shallow-water oceans: a source or sink of atmospheric CO2? *Frontiers in Ecology and the Environment*. **2**(7), 348–353.

Anisul Huq, F., Stevenson, M., Zorzini, M. (2014) Social sustainability in developing country suppliers P. Helen Walker, Professor Stefan Seur, ed. *International Journal of Operations & Production Management*. **34**(5), 610–638.

Antolín-López, R., Delgado-Ceballos, J., Montiel, I. (2016) Deconstructing corporate sustainability: a comparison of different stakeholder metrics. *Journal of Cleaner Production*. **136**, 5–17.

Ashby, A., Leat, M., Hudson-Smith, M. (2012) Making connections: a review of supply chain management and sustainability literature R. Wilding, ed. *Supply Chain Management: An International Journal*. **17**(5), 497–516.

Atkinson, G., Dietz, S., Neumayer, E. (2007) *Handbook of sustainable development*. Cheltenham, UK ;;Northampton, MA : Edward Elgar.

Azapagic, A. (2003) Systems Approach to Corporate Sustainability: A General Management Framework. *Process Safety and Environmental Protection*. **81**(5), 303–316.

Bacardit, A., Baquero, G., Sorolla, S., Ollé, L. (2015) Evaluation of a new sustainable continuous system for processing bovine leather. *Journal of Cleaner Production*. **101**, 197–204.

BASF (2007) *Pocketbook for the leather technologist | University of Northampton*. 4th ed. BASF.

Basiago, A.D. (1999) Economic, social, and environmental sustainability in development theory and urban planning practiceBasiago, A. D. (1999) 'Economic, social, and environmental sustainability in development theory and urban planning practice', The environmentalist, pp. 145. *The environmentalist*, 145–161.

Basu, S., Roy, M., Pal, P. (2019) Corporate greening in a large developing economy: pollution prevention strategies. *Environment, Development and Sustainability*. **21**(4), 1603–1633.

Bateh, J., Heaton, C., Arbogast, G.W., Broadbent, A. (2013) Defining Sustainability in the Business Setting. *American Journal of Business Education*. **6**(3), 397–400.

Baumgartner, R.J. (2014) Managing Corporate Sustainability and CSR: A Conceptual Framework Combining Values, Strategies and Instruments Contributing to Sustainable Development. *Corporate Social Responsibility and Environmental Management*. **21**(5), 258–271.

Bell, E., Bryman, A., Harley, B. (2018) *Business research methods*. Oxford university press.

Bell, S., Morse, S. (2009) *Sustainability Indicators: measuring the immeasurable?*

Bendell, J. ed. (2017) *Terms for Endearment: Business, NGOs and Sustainable Development*. New York: Routledge.

Beske, P., Seuring, S. (2014) Putting sustainability into supply chain management D. Stefan Schaltegger, Prof Roger Burr, ed. *Supply Chain Management: An International Journal*. **19**(3), 322–331.

Blanchard, D. (2006) The business of staying in business. *Industry Week*. **255**(10), 11.

Braun, V., Clarke, V. (2006) Using thematic analysis in psychology. *Qualitative Research in Psychology*. **3**(2), 77–101.

Brenner, B., Hartl, B. (2021) The perceived relationship between digitalization and ecological, economic, and social sustainability. *Journal of Cleaner Production*. **315**, 128128.

Brugnoli, F., Gonzalez-Quijano, G., Albu, L.F. (2013) The first social & environmental report of the European leather industry. *Leather and Footwear Journal*. **13**(1), 21–48.

Bryman, A. (2012) *Social Research Methods*. Fourth.

Bryman, A., Bell, E. (2011) *Business research methods*. Oxford University Press.

Bubicz, M.E., Barbosa-Póvoa, A.P.F.D., Carvalho, A. (2019) Incorporating social aspects in sustainable supply chains: Trends and future directions. *Journal of Cleaner Production*. **237**.

Burns, J.M.C. (2010) Cross-Case Synthesis and Analysis. In *Encyclopedia of Case Study Research*. 2455 Teller Road, Thousand Oaks California 91320 United States: SAGE Publications, Inc.

Carminati, L. (2018) Generalizability in Qualitative Research: A Tale of Two Traditions. *Qualitative Health Research*. **28**(13), 2094–2101.

Castelo, M., Lúcia, B., Rodrigues, L. (2007) Positioning Stakeholder Theory within the Debate on Corporate Social Responsibility. *Electronic Journal of Business Ethics and Organization Studies*. **12**(1), 5.

Castka, P., Prajogo, D. (2013) The effect of pressure from secondary stakeholders on the internalization of ISO 14001. *Journal of Cleaner Production*. **47**, 245–252.

Chen, K.-W., Lin, L.-C., Lee, W.-S. (2014) Analyzing the Carbon Footprint of the Finished Bovine Leather: A Case Study of Aniline Leather. *Energy Procedia*. **61**, 1063–1066.

Chen, L., Zhao, X., Tang, O., Price, L., Zhang, S., Zhu, W. (2017) Supply chain collaboration for sustainability: A literature review and future research agenda. *International Journal of Production Economics*. **194**.

Choi, H.C., Sirakaya, E. (2006) Sustainability indicators for managing community tourism. *Tourism Management*. **27**(6), 1274–1289.

Ciliberti, F., Pontrandolfo, P., Scozzi, B. (2008) Investigating corporate social responsibility in supply chains: a SME perspective. *Journal of Cleaner Production*. **16**(15), 1579–1588.

Clarke, V., Braun, V. (2013) *Successful qualitative research : a practical guide for beginners*. SAGE.

Clarke, V., Braun, V. (2017) Thematic analysis. *The Journal of Positive Psychology*. **9760**, 1–2.

Clarkson, M.E. (1995) A Stakeholder Framework for Analyzing and Evaluating Corporate Social Performance. *Academy of Management Review*. **20**(1), 92–117.

Claro, D.P., Neto, S.A.L., de Oliveira Claro, P.B. (2013) Sustainability drivers in food retail. *Journal of Retailing and Consumer Services*. **20**(3), 365–371.

Closs, D.J., Speier, C., Meacham, N. (2011) Sustainability to support end-to-end value chains: the role of supply chain management. *Journal of the Academy of Marketing Science*. **39**(1), 101–116.

Colantonio, A. (2009) Social sustainability: linking research to policy and practice.

Collis, J., Hussey, R. (2014) *Business Research - Jill Collis Roger Hussey - Macmillan International Higher Education*. Macmillan International Higher Education.

Connelly, S. (2007) Mapping Sustainable Development as a Contested Concept. *Local Environment*. **12**(3), 259–278.

Cooper, D.R., Schindler, P.S. (2013) *Business research methods*.

Crawford, L.M., Hitchcock, J.H., Burkholder, G.J., Cox, K.A. (2019) *Research Design and Methods : An Applied Guide for the Scholar-Practitioner*.

Crifo, P., Escrig, E., Nicolas, O. (2018) Corporate Governance as a Key Driver of Corporate Sustainability in France : The Role of Board Members and Investor Relations. *Journal of Business Ethics*. (0123456789).

Cuthill, M. (2010) Strengthening the 'social' in sustainable development: Developing a conceptual framework for social sustainability in a rapid urban growth region in Australia. *Sustainable Development*. **18**(6), 362–373.

Dahl, A.L. (2012) Achievements and gaps in indicators for sustainability. *Ecological Indicators*. **17**, 14–19.

Dahlsrud, A. (2008) How corporate social responsibility is defined: an analysis of 37 definitions. *Corporate Social Responsibility and Environmental Management*. **15**(1), 1–13.

Daniels, R., Landmann, W. (2013) *The framework for leather manufacture*. World Trades Pub.

Davidson, K.M. (2011) Reporting Systems for Sustainability: What Are They Measuring? *Social Indicators Research*. **100**(2), 351–365.

Dawson, P.M., Zanko, M. (2011) Social innovation at work: sustainable OIIS in IIRM. In M. Clarke, ed. *Readings in HRM and Sustainability*. Prahran, Victoria: Tilde University Press., pp. 82–99.

Decouple, P. (2013) Cancer Risks Associated with Employment in the Leather and Leather Products Industry. *Archives of Environmental Health: An International Journal*. **34**(1), 33–37.

Defee, C.C., Williams, B., Randall, W.S., Thomas, R. (2010) An inventory of theory in logistics and SCM research. *International Journal of Logistics Management*. **21**(3), 404–489.

Dekhili, S., Achabou, M.A., Alharbi, F. (2019) Could sustainability improve the promotion of luxury products? *European Business Review*. **31**(4), 488–511.

Delgado-Ballester, E., Luis Munuera-Alemán, J. (2001) Brand trust in the context of consumer loyalty. *European Journal of Marketing*. **35**(11/12), 1238–1258.

Dempsey, N., Bramley, G., Power, S., Brown, C. (2011) The social dimension of sustainable development: Defining urban social sustainability. *Sustainable Development*. **19**(5), 289–300.

DIRECTIVE 2014/95/EU (2014) *DIRECTIVE 2014/95/EU OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL - of 22 October 2014 - amending Directive 2013/34/EU as regards disclosure of non-financial and diversity information by certain large undertakings and groups* -.

Dixit, S., Yadav, A., Dwivedi, P.D., Das, M. (2015) Toxic hazards of leather industry and technologies to combat threat: a review. *Journal of Cleaner Production*. **87**, 39–49.

Dočekalová, M.P., Kocmanová, A. (2016) Composite indicator for measuring corporate sustainability. *Ecological Indicators*. **61**, 612–623.

Donaldson, T., Preston, L.E. (1995) The Stakeholder Theory of the Corporation: Concepts, Evidence, and Implications. *The Academy of Management Review*. **20**(1), 65.

Doney, P.M., Cannon, J.P. (1997) An Examination of the Nature of Trust in Buyer-Seller Relationships. *Journal of Marketing*. **61**(2), 35.

Donnelly, N., Proctor-Thomson, S. (2011) Workplace sustainability and employee voice. In *Readings in HRM and sustainability*. Tilde University Press, pp. 117–132.

Doody, O., Doody, C.M. (2015) Conducting a pilot study: case study of a novice researcher. *British Journal of Nursing*. **24**(21), 1074–1078.

Dubey, R., Gunasekaran, A., Samar Ali, S. (2015) Exploring the relationship between leadership, operational practices, institutional pressures and environmental performance: A framework for green supply chain. *International Journal of Production Economics*. **160**, 120–132.

Dwivedi, A., Agrawal, D., Madaan, J. (2019) Sustainable manufacturing evaluation model focusing leather industries in India: A TISM approach. *Journal of Science and Technology Policy Management*. **10**(2), 319–359.

Dyllick, T., Hockerts, K. (2002) Beyond the business case for corporate sustainability. *Business Strategy and the Environment*. **11**(2), 130–141.

Easterby-Smith, M., Thorpe, R., Jackson, P. (Paul R., (2015) *Management and business research*. Fifth. SAGE.

Easton, G. (2010) Critical realism in case study research. *Industrial Marketing Management*. **39**(1), 118–128.

Eizenberg, E., Jabareen, Y. (2017) Social Sustainability: A New Conceptual Framework. *Sustainability*. **9**(1), 68.

Elkington, J. (1997) *Cannibals with forks : the triple bottom line of 21st century business*. Capstone.

Elkington, J. (1998) Partnerships fromcannibals with forks: The triple bottom line of 21st-century business. *Environmental Quality Management*. **8**(1), 37–51.

Engelman, R. (2013) Beyond Sustainababble. In L. Starke, E. Assadourian, & T. Prugh, eds. *State of the world 2013: Is sustainability still possible*. Washington: Island Press/Worldwatch Institut, pp. 3–16.

Engert, S., Baumgartner, R.J. (2016) Corporate sustainability strategy - Bridging the gap between formulation and implementation. *Journal of Cleaner Production*. **113**.

Engert, S., Rauter, R., Baumgartner, R.J. (2016) Exploring the integration of corporate sustainability into strategic management: a literature review. *Journal of Cleaner Production*. **112**, 2833–2850.

Epstein, M.J., Roy, M.-J. (2001) Sustainability in Action: Identifying and Measuring the Key Performance Drivers. *Long Range Planning*. **34**(5), 585–604.

Eurostat (2018) The leather industry in the EU - European Commission. [online]. Available from: https://ec.europa.eu/growth/sectors/fashion/leather/eu-industry_en [Accessed October 23, 2018].

Fairtrade (2019) Fairtrade and sustainability. [online]. Available from: https://www.fairtrade.org.uk/What-is-Fairtrade/Fairtrade-and-sustainability [Accessed January 28, 2019].

Faisal, M.N. (2010) Sustainable supply chains: a study of interaction among the enablers. *Business Process Management Journal*. **16**(3).

Fletcher, A.J. (2017) Applying critical realism in qualitative research: methodology meets method. *International Journal of Social Research Methodology*. **20**(2), 181–194.

Foerstl, K., Azadegan, A., Leppelt, T., Hartmann, E. (2015) Drivers of Supplier Sustainability: Moving Beyond Compliance to Commitment. *Journal of Supply Chain Management*. **51**(1), 67–92.

Fombrun, C., Rindova, V. (2000) The road to transparency: Reputation management at Royal Dutch/Shell. *The expresive organization*. **7**, 7–96.

Freeman, E.R., Harrison, J.S., Wicks, A.C., Parmar, B., De Colle, S. (2010) *Stakeholder theory : the state of the art*. Cambridge University Press.

Freeman, R.E. (1984) *Strategic management : a stakeholder approach*. Boston: Pitman.

Freeman, R Edward, Wicks, A.C., Parmar, B. (2004) Stakeholder Theory and; 'the Corporate Objective Revisited'. *Organization Science*. **15**(3), 364.

Freeman, R. Edward, Wicks, A.C., Parmar, B. (2004) Stakeholder Theory and "The Corporate Objective Revisited". *Organization Science*. **15**(3), 364–369.

Friedman, A.L., Miles, S. (2006) *Stakeholders : theory and practice*. Oxford University Press.

Fu, R., Tang, Y., Chen, G. (2020) Chief sustainability officers and corporate social (Ir)responsibility. *Strategic Management Journal*. **41**(4), 656–680.

Gabzdylova, B., Raffensperger, J.F., Castka, P. (2009) Sustainability in the New Zealand wine industry: drivers, stakeholders and practices. *Journal of Cleaner Production*. **17**(11), 992–998.

Gallopín, G.C. (2005) Indicators and their use : information for decision-making. *Sustainability indicators*.

Ganescu, M.C. (2012) Assessing Corporate Social Performance from a Contingency Theory Perspective. *Procedia Economics and Finance*. **3**, 999 1004.

Gao, D., Xu, Z., Ruan, Y.Z., Lu, H. (2017) From a systematic literature review to integrated definition for sustainable supply chain innovation (SSCI). *Journal of Cleaner Production*. **142**, 1518–1538.

Garai, J. (2014) Environmental aspects and health risks of leather tanning industry: a study in the Hazaribag area. *Chinese Journal of Population Resources and Environment*. **12**(3), 278–282.

Garcia-torres, S., Albareda, L., Rey-garcia, M., Seuring, S. (2019) Traceability for sustainability – literature review and conceptual framework. . (September 2018).

Gázquez-Abad, J.C., Huertas-García, R., Vázquez-Gómez, M.D., Romeo, A.C. (2015) Drivers of Sustainability Strategies in Spain's Wine Tourism Industry. *Cornell Hospitality Quarterly*. **56**(1), 106–117.

Gerek, E.E., Yılmaz, S., Koparal, A.S., Gerek, N. (2019) Combined energy and removal efficiency of electrochemical wastewater treatment for leather industry. *Journal of Water Process Engineering*. **30**, 100382.

Ghadge, A., Kaklamanou, M., Choudhary, S., Bourlakis, M. (2017) Implementing environmental practices within the Greek dairy supply chain Drivers and barriers for SMEs. *Industrial Management and Data Systems*. **117**(9), 1995–2014.

Gibson, K. (2012) Stakeholders and Sustainability: An Evolving Theory. *Journal of Business Ethics*. **109**(1), 15–25.

Gill, J., Johnson, P., Clark, M. (2010) *Research methods for managers*. SAGE.

Gimenez, C., Sierra, V., Rodon, J. (2012) Sustainable operations: Their impact on the triple bottom line. *International Journal of Production Economics*. **140**(1), 149–159.

Gioia, D.A., Corley, K.G., Hamilton, A.L. (2013) Seeking Qualitative Rigor in Inductive Research. *Organizational Research Methods*. **16**(1), 15–31.

Giunipero, L.C., Hooker, R.E., Denslow, D. (2012) Purchasing and supply management sustainability: Drivers and barriers. *Journal of Purchasing and Supply Management*. **18**(4), 258–269.

Glavič, P., Lukman, R. (2007) Review of sustainability terms and their definitions. *Journal of Cleaner Production*. **15**(18), 1875 1885.

Glover, J.L., Champion, D., Daniels, K.J., Dainty, A.J.D. (2014) An Institutional Theory perspective on sustainable practices across the dairy supply chain. *International Journal of Production Economics*. **152**, 102–111.

Goodland, R. (1995) The Concept of Environmental Sustainability. *Annual Review of Ecology and Systematics*. **26**(1), 1–24.

Gould, R., Missimer, M., Mesquita, P.L. (2017) Using social sustainability principles to analyse activities of the extraction lifecycle phase: Learnings from designing support for concept selection. *Journal of Cleaner Production*. **140**, 267–276.

Govindan, K., Khodaverdi, R., Jafarian, A. (2013) A fuzzy multi criteria approach for measuring sustainability performance of a supplier based on triple bottom line approach. *Journal of Cleaner Production*. **47**, 345–354.

Grappi, S., Romani, S., Barbarossa, C. (2017) Fashion without pollution: How consumers evaluate brands after an NGO campaign aimed at reducing toxic chemicals in the fashion industry. *Journal of Cleaner Production*. **149**, 1164–1173.

Grewal, J., Serafeim, G., Yoon, A.S. (2016) Shareholder Activism on Sustainability Issues. *SSRN Electronic Journal*.

GRI (2000) *Sustainability Reporting Guidelines*.

Grix, J. (2010) *The foundations of research*.

Gualandris, J., Kalchschmidt, M. (2014) Customer pressure and innovativeness: Their role in sustainable supply chain management. *Journal of Purchasing and Supply Management*. **20**(2), 92–103.

Guo, D., Defrancia, K., Chen, M., Filiatraut, B., Zhang, C. (2015) *Assessing Sustainability: Frameworks and Indices*.

Gupta, S.K., Gupta, S. (2019) Closed loop value chain to achieve sustainable solution for tannery effluent. *Journal of Cleaner Production*. **213**, 845–846.

Gupta, S.K., Racherla, U.S. (2018) Interdependence among dimensions of sustainability. *Management of Environmental Quality: An International Journal*. **29**(3), 406–415.

Gupta, Sandeep, Gupta, Shivam, Dhamija, P., Bag, S. (2018) Sustainability strategies in the Indian leather industry: an empirical analysis. *Benchmarking: An International Journal*. **25**(3), 797–814.

Ha, H.-Y., Perks, H. (2005) Effects of consumer perceptions of brand experience on the web: brand familiarity, satisfaction and brand trust. *Journal of Consumer Behaviour*. **4**(6), 438–452.

Hamid, S., Hosseini, K., Behboudi, L., Khodadad Hosseini, S.H., Behboudi, L. (2017) Brand trust and image: effects on customer satisfaction. *International Journal of Health Care Quality Assurance*. **30**(7), 580–590.

Han, S.H., Nguyen, B., Lee, T.J. (2015) Consumer-based chain restaurant brand equity, brand reputation, and brand trust. *International Journal of Hospitality Management*. **50**, 84–93.

Hannon, A., Callaghan, E.G. (2011) Definitions and organizational practice of sustainability in the for-profit sector of Nova Scotia. *Journal of Cleaner Production*. **19**(8), 877–884.

Haque, M.A., Chowdhury, R.A., Chowdhury, W.A., Baralaskar, A.H., Bhowmik, S., Islam, S.

(2019) Immobilization possibility of tannery wastewater contaminants in the tiles fixing mortars for eco-friendly land disposal. *Journal of Environmental Management*. **242**, 298–308.

Harvey, M., Pearson, C. (2018) *Exploring the Impacts of Shareholder Activism on Sustainability*.

Hazell, P., Wood, S. (2007) Drivers of change in global agriculture. *The Royal Society*, 495–515.

Heale, R., Forbes, D. (2013) Understanding triangulation in research. *Evidence-Based Nursing*. **16**(4).

Heller, F.A., Pusic, E., Strauss, G., Wilpert, B. (1998) *Organizational participation : myth and reality*. Oxford University Press.

Hernández Pardo, R.J., Bhamra, T., Bhamra, R. (2012) Sustainable Product Service Systems in Small and Medium Enterprises (SMEs): Opportunities in the Leather Manufacturing Industry. *Sustainability*. **4**(2), 175–192.

Herold, D. (2018) Demystifying the link between institutional theory and stakeholder theory in sustainability reporting. *Economics, Management and Sustainability*. **3**(2), 6–19.

Higginbottom, G.M.A. (2004) Sampling issues in qualitative research. *Nurse Researcher*. **12**(1), 7–19.

Hörisch, J., Freeman, R.E., Schaltegger, S. (2014) Applying Stakeholder Theory in Sustainability Management. *Organization & Environment*. **27**(4), 328–346.

Horváthová, M., Lacko, R., Hajduová, Z. (2019) Using industry 4.0 concept – digital twin – to improve the efficiency of leather cutting in automotive industry. *Quality Innovation Prosperity*. **23**(2), 1–12.

Hu, J., Xiao, Z., Zhou, R., Deng, W., Wang, M., Ma, S. (2011) Ecological utilization of leather tannery waste with circular economy model. *Journal of Cleaner Production*. **19**(2), 221–228.

Hussain, M., Ajmal, M.M., Gunasekaran, A., Khan, M. (2018) Exploration of social sustainability in healthcare supply chain. *Journal of Cleaner Production*. **203**, 977–989.

Hutchins, M.J., Richter, J.S., Henry, M.L., Sutherland, J.W. (2019) Development of indicators for the social dimension of sustainability in a U.S. business context. *Journal of Cleaner Production*. **212**, 687–697.

Hutchins, M.J., Sutherland, J.W. (2008) An exploration of measures of social sustainability and their application to supply chain decisions. *Journal of Cleaner Production*. **16**(15), 1688–1698.

ICT (2018) Sustainability of the Tanning industry | ICT Leather. [online]. Available from: https://leathercouncil.org/introduction-to-leather/sustainability-of-the-tanning-industry/ [Accessed October 12, 2018].

ILO (2018) Textiles, clothing, leather and footwear sector. [online]. Available from: http://www.ilo.org/global/industries-and-sectors/textiles-clothing-leather-footwear/lang--en/index.htm [Accessed May 8, 2018].

International Institute for Sustainable Development. (1994) *Business strategy for sustainable development : leadership and accountability for the '90s*. Diane Publishing Co.

Islam, M.H., Sarker, M.R., Hossain, M.I., Ali, K., Noor, K.M.A. (2020) Towards Sustainable Supply Chain Management (SSCM): A Case of Leather Industry. *Journal of Operations and Strategic Planning*. **3**(1), 81–98.

Islam, M.S., Tseng, M.L., Karia, N., Lee, C.H. (2018) Assessing green supply chain practices in Bangladesh using fuzzy importance and performance approach. *Resources, Conservation and Recycling*. **131**, 134–145.

Jaegler, A. (2016) A sustainable supply chain in the leather sector: dilemmas, challenges and learnings. *Supply Chain Forum: An International Journal*. **17**(3), 136–142.

Jain, V., Wadhwa, S., Deshmukh, S.G. (2009) Select supplier-related issues in modelling a dynamic supply chain: potential, challenges and direction for future research. *International Journal of Production Research*. **47**(11), 3013–3039.

Jayanthi, D., Victor, J.S., Chellan, R., Chellappa, M. (2019) Green processing: minimising harmful substances in leather making. *Environmental Science and Pollution Research*. **26**(7), 6782–6790.

Jefferson, R.N. (2014) Action Research: Theory and Applications. *New Review of Academic Librarianship*. **20**(2), 91–116.

Jiang, Y., Jia, F., Gong, Y. (2018) IKEA: Global sourcing and the sustainable leather initiative. *International Food and Agribusiness Management Review*. **21**(5), 627–639.

Johnson, S.K. (2017) *What 11 CEOs Have Learned About Championing Diversity*.

Jose, A., Lee, S.-M. (2007) Environmental Reporting of Global Corporations: A Content Analysis based on Website Disclosures. *Journal of Business Ethics*. **72**(4), 307–321.

Joseph, K., Nithya, N. (2009) Material flows in the life cycle of leather. *Journal of Cleaner Production*. **17**(7), 676–682.

Joung, C.B., Carrell, J., Sarkar, P., Feng, S.C. (2013) Categorization of indicators for sustainable manufacturing. *Ecological Indicators*. **24**, 148–157.

Jraisat, L. (2010) Information Sharing in an Export Supply Chain Relationship: the Case of the Jordanian Fresh Fruit and Vegetable Export Industry.

Jung, H.J., Oh, K.W. (2019) Exploring the Sustainability Concepts Regarding Leather Apparel in China and South Korea. *Sustainability*. **11**(19), 5389.

Kanagaraj, J., Senthilvelan, T., Panda, R.C., Kavitha, S. (2015) Eco-friendly waste management strategies for greener environment towards sustainable development in leather industry: a comprehensive review. *Journal of Cleaner Production*. **89**, 1–17.

Kannan, D. (2018) Role of multiple stakeholders and the critical success factor theory for the sustainable supplier selection process. *International Journal of Production Economics*. **195**, 391–418.

Kaur, A., Sharma, P.C. (2018) Social sustainability in supply chain decisions: Indian manufacturers. *Environment, Development and Sustainability*. **20**(4), 1707–1721.

Keeble, J.J., Topiol, S., Berkeley, S. (2003) Using Indicators to Measure Sustainability Performance at a Corporate and Project Level. *Journal of Business Ethics*. **44**(2), 149–158.

Kılıç, E., Puig, R., Zengin, G., Zengin, C.A., Fullana-i-Palmer, P. (2018) Corporate carbon

footprint for country Climate Change mitigation: A case study of a tannery in Turkey. *Science of the Total Environment*. **635**, 60–69.

de Klerk, H.M., Kearns, M., Redwood, M. (2019) Controversial fashion, ethical concerns and environmentally significant behaviour: The case of the leather industry. *International Journal of Retail and Distribution Management*. **47**(1), 19–38.

Kobayashi, A. ed. (2020) *International Encyclopedia of Human Geography*.

Kolk, A., Hong, P., van Dolen, W. (2008) Corporate social responsibility in china: an analysis of domestic and foreign retailers' sustainability dimensions. *Business Strategy and the Environment*, n/a-n/a.

Kolk, A., Pinkse, J. (2007) Towards strategic stakeholder management? Integrating perspectives on sustainability challenges such as corporate responses to climate change. *Corporate Governance*. **7**(4), 370–378.

Korstjens, I., Moser, A. (2018) Series: Practical guidance to qualitative research. Part 4: Trustworthiness and publishing. *European Journal of General Practice*. **24**(1), 120–124.

Kovács, G. (2008) Corporate environmental responsibility in the supply chain. *Journal of Cleaner Production*. **16**(15), 1571–1578.

Krajnc, D., Glavič, P. (2005) A model for integrated assessment of sustainable development. *Resources, Conservation and Recycling*. **43**(2), 189–208.

Krishnamoorthy, G., Sadulla, S., Sehgal, P.K., Mandal, A.B. (2012) Green chemistry approaches to leather tanning process for making chrome-free leather by unnatural amino acids. *Journal of Hazardous Materials*. **215 216**, 173 182.

Küçüksayraç, E. (2015) Design for sustainability in companies: strategies, drivers and needs of Turkey's best performing businesses. *Journal of Cleaner Production*. **106**, 455–465.

Kuhlman, T., Farrington, J. (2010) What is Sustainability? *Sustainability*. **2**(11), 3436–3448.

Kumar Gupta, S., Gupta, S., Gayathiri, S. (2018) "Pollution prevention" is the key to drive sustainability: Preliminary findings from a tannery unit in India. *Management of Environmental Quality: An International Journal*. **29**(3), 416–426.

Kusum, P.P.A., Yinghua, S. (2018) HOW DO ENTREPRENEURS' PERCEPTIONS ON INNOVATION EFFECT ININDUSTRY COMPETITIVENESS AND SUSTAINABILITY. *Journal on Innovation and Sustainability. RISUS ISSN 2179-3565*. **9**(2), 12.

Labuschagne, C., Brent, A.C., van Erck, R.P.G. (2005) Assessing the sustainability performances of industries. *Journal of Cleaner Production*. **13**(4), 373–385.

Landorf, C. (2011) Evaluating social sustainability in historic urban environments. *International Journal of Heritage Studies*. **17**(5), 463–477.

Lankoski, L. (2016) Alternative conceptions of sustainability in a business context. *Journal of Cleaner Production*. **139**, 847–857.

Lavrakas, P. (2008) *Encyclopedia of Survey Research Methods*. 2455 Teller Road, Thousand Oaks California 91320 United States of America : Sage Publications, Inc.

Lawson, E. (2017) 9 Companies with Great Environmental Initiatives | Smart Cities Dive. [online]. Available from: https://www.smartcitiesdive.com/ex/sustainablecitiescollective/9-

companies-great-environmental-initiatives/1193165/ [Accessed December 27, 2021].

Leather Naturally (2018) Leather Naturally - Mission. [online]. Available from: http://www.leathernaturally.org/About/Mission.aspx [Accessed June 7, 2018].

Leathermag (2018) Full circle - UNIC's annual sustainability report - Leather International. [online]. Available from: http://www.leathermag.com/features/featurefull-circle---unics-annual-sustainability-report-5709363/ [Accessed October 23, 2018].

Lehtonen, M. (2004) The environmental–social interface of sustainable development: capabilities, social capital, institutions. *Ecological Economics*. **49**(2), 199–214.

León, H.C.M., Calvo-Amodio, J. (2017) Towards lean for sustainability: Understanding the interrelationships between lean and sustainability from a systems thinking perspective. *Journal of Cleaner Production*. **142**, 4384–4402.

Li, X., Xu, F., Xiang, N., Wang, Y., Zhang, Y. (2019) Dynamic Optimized Cleaner Production Strategies to Improve Water Environment and Economic Development in Leather Industrial Parks: A Case Study in Xinji, China. *Sustainability*. **11**(23), 6828.

Li, Y., Zhao, X., Shi, D., Li, X. (2014) Governance of sustainable supply chains in the fast fashion industry. *European Management Journal*. **32**(5). 823–836.

Liedtke, C., Jolanta Welfens, M., Rohn, H., Nordmann, J. (2012) LIVING LAB: user-driven innovation for sustainability. *International Journal of Sustainability in Higher Education*. **13**(2), 53–66.

Lim, C.I., Biswas, W.K. (2018) Development of triple bottom line indiLim, C. I. and Biswas, W. K. (2018) 'Development of triple bottom line indicators for sustainability assessment framework of Malaysian palm oil industry', Clean Technologies and Environmental Policy. Springer Berlin H. *Clean Technologies and Environmental Policy*. **20**(3), 539–560.

Lin, R., Sheu, C. (2012) Why Do Firms Adopt/Implement Green Practices?–An Institutional Theory Perspective. *Procedia - Social and Behavioral Sciences*. **57**, 533 540.

Lincoln, Y.S., Guba, E.G. (1985) *Naturalistic inquiry*. Sage Publications.

Littig, B., Griessler, E. (2005) Social sustainability: a catchword between political pragmatism and social theory. *International Journal of Sustainable Development*. **8**(1/2), 65–79.

Lodhia, S., Martin. N. (2014) Corporate Sustainability Indicators: an Australian Mining Case Study. *Journal of Cleaner Production*. **84**, 107–115.

Longoni, A., Cagliano, R. (2015) Environmental and social sustainability prioritiesn: Their integration in operations strategies. *International Journal of Operations and Production Management*. **35**(2), 216–345.

Lozano, R. (2015) A holistic perspective on corporate sustainability drivers. *Corporate Social Responsibility and Environmental Management*. **22**(1), 32–44.

Lozano, R., Carpenter, A., Huisingh, D. (2015) A review of 'theories of the firm' and their contributions to Corporate Sustainability. In *Journal of Cleaner Production*.

Lozano, R., Haartman, R. (2017) Reinforcing the Holistic Perspective of Sustainability: Analysis of the Importance of Sustainability Drivers in Organizations. *Corporate Social Responsibility and Environmental Management*.

Lundin, M. (2003) *Indicators for Measuring the Sustainability of Urban Water Systems – a Life Cycle Approach*.

LWG (2018) About Us | Leather Working Group. [online]. Available from: https://www.leatherworkinggroup.com/who-we-are/about-us [Accessed May 9, 2018].

Macchion, L., Da Giau, A., Caniato, F., Caridi, M., Danese, P., Rinaldi, R., Vinelli, A. (2018) Strategic approaches to sustainability in fashion supply chain management. *Production Planning and Control*. **29**(1), 9–28.

Magis, K. (2010) Community Resilience: An Indicator of Social Sustainability. *Society & Natural Resources*. **23**(5), 401–416.

Maguire, M., Delahunt, B. (2017) Doing a Thematic Analysis : A Practical , Step-by-Step Guide for Learning and Teaching Scholars . *All Ireland Journal of Teaching and Learning in Higher Education*. **3**(3).

Mani, V., Agrawal, R., Sharma, V. (2015) Social sustainability in the supply chain: analysis of enablers. *Management Research Review*. **38**(9).

Mani, V., Gunasekaran, A. (2018a) Four forces of supply chain social sustainability adoption in emerging economies. *International Journal of Production Economics*. **199**, 150–161.

Mani, V., Gunasekaran, A. (2018b) Four forces of supply chain social sustainability adoption in emerging economies. *International Journal of Production Economics*. **199**.

Mani, V., Gunasekaran, A., Papadopoulos, T., Hazen, B., Dubey, R. (2016) Supply chain social sustainability for developing nations: Evidence from india. *Resources, Conservation and Recycling*. **111**.

Mani, V., Jabbour, C.J.C., Mani, K.T.N. (2020) Supply chain social sustainability in small and medium manufacturing enterprises and firms' performance: Empirical evidence from an emerging Asian economy. *International Journal of Production Economics*. **227**, 107656.

De Marchi, V., Di Maria, E. (2019) Environmental Upgrading and Suppliers' Agency in the Leather Global Value Chain. *Sustainability*. **11**(23), 6530.

Marconi, M., Marilungo, E., Papetti, A., Germani, M. (2017) Traceability as a means to investigate supply chain sustainability: the real case of a leather shoe supply chain. *International Journal of Production Research*. **55**(22), 6638–6652.

van Marrewijk, M. (2003) Concepts and Definitions of CSR and Corporate Sustainability: Between Agency and Communion. *Journal of Business Ethics*. **44**(2), 95–105.

Marshall, B., Cardon, P., Poddar, A., Fontenot, R. (2013) Does Sample Size Matter in Qualitative Research?: A Review of Qualitative Interviews in is Research. *Journal of Computer Information Systems*. **54**(1), 11–22.

Martins, C.L., Pato, M. V. (2019) Supply chain sustainability: A tertiary literature review. *Journal of Cleaner Production*. **225**, 995–1016.

Mathur, V.N., Price, A.D.F., Austin, S. (2008) Conceptualizing stakeholder engagement in the context of sustainability and its assessment. *Construction Management and Economics*. **26**(6), 601–609.

McCarthy, A., Darcy, C., Grady, G. (2010) Work-life balance policy and practice: Understanding line manager attitudes and behaviors. *Human Resource Management Review*.

20(2), 158–167.

McDonough, W., Braungart, M. (2009) *Cradle to cradle : remaking the way we make things*. Vintage.

McKenzie, S. (2004) Social sustainability: Towards some definitions. *Hawke Research Institute Working Paper Series*. (27), 1–31.

Meadows, D. (1998) *Indicators and Information Systems for Sustainable Development: A Report to ... - Donella H. Meadows - Google Books*.

Mehta, A., Rao, J.R., Fathima, N.N. (2014) Can green solvents be alternatives for thermal stabilization of collagen? *International Journal of Biological Macromolecules*. **69**, 361–368.

Meixell, M.J., Luoma, P. (2015) Stakeholder pressure in sustainable supply chain management P. Maria Jesus Saenz & D. Xenophon Koufteros, eds. *International Journal of Physical Distribution & Logistics Management*. **45**(1/2), 69–89.

Mellor, D.J. (2016) Updating animal welfare thinking: Moving beyond the "five freedoms" towards "A lifeworth living". *Animals*. **6**(3).

Mentzer, J.T., DeWitt, W., Keebler, J.S., Min, S., Nix, N.W., Smith, C.D., Zacharia, Z.G. (2001) DEFINING SUPPLY CHAIN MANAGEMENT. *Journal of Business Logistics*. **22**(2), 1–25.

Miles, M.B., Huberman, A.M. (1994) *Qualitative data analysis : an expanded sourcebook*.

Missimer, M., Robèrt, K.H., Broman, G. (2017) A strategic approach to social sustainability - Part 1: exploring the social system. *Journal of Cleaner Production*. **140**, 32–41.

Mitchell. G., May, A., McDonald, A. (1995) PICABUE: a methodological framework for the development of indicators of sustainable development. *International Journal of Sustainable Development & World Ecology*. **2**(2), 104–123.

Mitchell, M.A., Yates, D. (2002) How to use your organizational culture as a competitive tool. *Nonprofit World*. **20**(2), 33–34.

Mohammad Ebrahimi, S., Koh, L. (2021) Manufacturing sustainability: Institutional theory and life cycle thinking. *Journal of Cleaner Production*. **298**, 126787.

Moktadir, Abdul, Rahman, T., Jabbour, C.J.C., Mithun Ali, S., Kabir, G. (2018) Prioritization of drivers of corporate social responsibility in the footwear industry in an emerging economy: A fuzzy AHP approach. *Journal of Cleaner Production*. **201**, 369–381.

Moktadir, Abdul, Rahman, T., Rahman, M.H., Ali, S.M., Paul, S.K. (2018) Drivers to sustainable manufacturing practices and circular economy: A perspective of leather industries in Bangladesh. *Journal of Cleaner Production*. **174**, 1366–1380.

Moktadir, M.A., Ali, S.M., Jabbour, C.J.C., Paul, A., Ahmed, S., Sultana, R., Rahman, T. (2019) Key factors for energy-efficient supply chains: Implications for energy policy in emerging economies. *Energy*. **189**, 116129.

Moktadir, Md Abdul, Ali, S.M., Rajesh, R., Paul, S.K. (2018) Modeling the interrelationships among barriers to sustainable supply chain management in leather industry. *Journal of Cleaner Production*. **181**, 631–651.

Moktadir, M.A., Rahman, T., Ali, S.M., Nahar, N., Paul, S.K. (2019) Examining barriers to

reverse logistics practices in the leather footwear industry. *Annals of Operations Research*, 1–32.

Montiel, I. (2008) Corporate Social Responsibility and Corporate Sustainability. *Organization & Environment*. **21**(3), 245 269.

Morais, D.O.C., Silvestre, B.S. (2018) Advancing social sustainability in supply chain management: Lessons from multiple case studies in an emerging economy. *Journal of Cleaner Production*. **199**, 222 235.

Morelli, J. (2011) Environmental Sustainability: A Definition for Environmental Professionals. *Journal of Environmental Sustainability*. **1**(1).

Mori, K., Christodoulou, A. (2012) Review of sustainability indices and indicators: Towards a new City Sustainability Index (CSI). *Environmental Impact Assessment Review*. **32**(1), 94–106.

Moss, M.L., Grunkemeyer, W.T. (2007) *Using Resident Formulated Multi-Dimensional Indicators to Assess Urban Communities' Progress Toward Meeting Sustainability Goals*.

Moutinho, L., Veloutsou, C. (2009) Brand relationships through brand reputation and brand tribalism. *Journal of Business Research*. **62**(3), 314–322.

Moxham, C., Kauppi, K. (2014) Using organisational theories to further our understanding of socially sustainable supply chains: The case of fair trade. *Supply Chain Management*. **19**(4), 413–420.

Munny, A.A., Ali, S.M., Kabir, G., Moktadir, M.A., Rahman, T., Mahtab, Z. (2019) Enablers of social sustainability in the supply chain: An example of footwear industry from an emerging economy. *Sustainable Production and Consumption*. **20**. 230–242.

MVO Nederland (2013) *Sustainability in the leather supply chain*. Ernst & Young.

Naik, G., Suresh, D.N. (2018) Challenges of creating sustainable agri-retail supply chains. *IIMB Management Review*.

Najjar, M., Yasin, M.M. (2021) The management of global multi-tier sustainable supply chains: a complexity theory perspective. *https://doi.org/10.1080/00207543.2021.1990432*, 1–18.

Nappi, V., Rozenfeld, H. (2015) The Incorporation of Sustainability Indicators into a Performance Measurement System. *Procedia CIRP*. **26**, 7–12.

Neuman, W.L. (William L. (2014) *Social research methods : qualitative and quantitative approaches*.

Nicoleta, T., Laura, C., Gheorghe, P. (2014) SOCIAL PREMISES FOR A SUSTAINABLE LEATHER INDUSTRY. *Annals of the23 University of Oradea: Economic Science*. **23**(1), 196–205.

Noble, H., Heale, R. (2019) Triangulation in research, with examples. *Evidence-Based Nursing*. **22**(3), 67–68.

Nowell, L.S., Norris, J.M., White, D.E., Moules, N.J. (2017) Thematic Analysis : Striving to Meet the Trustworthiness Criteria. *International Journal of Qualitative methods*. **16**, 1–13.

OECD/Eurostat (2005) *Oslo Manual*. OECD Publishing.

OECD (2016) OECD Labour Force Statistics 2015. [online]. Available from: https://www.oecd-ilibrary.org/employment/oecd-labour-force-statistics-2015_oecd_lfs-2015-en [Accessed June 4, 2020].

Oelze, N. (2017) Sustainable Supply Chain Management Implementation Enablers and Barriers in the Textile Industry. *Sustainability*. **9**(8), 1435.

Onwuegbuzie, A.J., Leech, N.L. (2005) On Becoming a Pragmatic Researcher: The Importance of Combining Quantitative and Qualitative Research Methodologies. *International Journal of Social Research Methodology*. **8**(5), 375–387.

Osborne, S., Hammoud, M.S. (2017) Effective Employee Engagement in the Workplace. *International Journal of Applied Management and Technology*. **16**(1), 50–67.

Pacheco, J.R.R., Almeida1, C.M.V.B., Agostinho, F., Sevegnani, F., Giannetti, B.F., Liu, G. (2019) Assessing footwear factories under emergy and material flow accounting tools after implementing cleaner production practices. *Journal of Environmental Accounting and Management*. **7**(4), 429–448.

Pagell, M., Shevchenko, A. (2014) Why Research in Sustainable Supply Chain Management Should Have no Future. *Journal of Supply Chain Management*. **50**(1), 44–55.

Panda, R.C., Selvasekhar, S., Murugan, D., Sivakumar, V., Narayani, T., Sreepradha, C. (2016) Cleaner production of basic chromium sulfate - With a review of sustainable green production options. *Journal of Cleaner Production*. **112**, 4854–4862.

Pandi, A., Marichetti Kuppuswami, G., Numbi Ramudu, K., Palanivel, S. (2019) A sustainable approach for degradation of leather dyes by a new fungal laccase. *Journal of Cleaner Production*. **211**, 590–597.

Papetti, A., Marconi, M., Rossi, M., Germani, M. (2019) Web-based platform for eco-sustainable supply chain management. *Sustainable Production and Consumption*. **17**, 215–228.

Parris, T.M., Kates, R.W. (2003) Characterising and Measuring Sustainable Development. *Annual Review of Environment and Resources*. **28**(1), 559–586.

Paterson, B.L. (2010) Within-Case Analysis. In *Encyclopedia of Case Study Research*. 2455 Teller Road, Thousand Oaks California 91320 United States: SAGE Publications, Inc.

Patton, M.Q. (2015) *Qualitative research & evaluation methods : integrating theory and practice*.

Paul, J., Criado, A.R. (2020) The art of writing literature review: What do we know and what do we need to know? *International Business Review*. **29**(4), 101717.

Pawle, J., Cooper, P. (2006) Measuring Emotion—Lovemarks, The Future Beyond Brands. *Journal of Advertising Research*. **46**(1), 38–48.

Perrini, F., Tencati, A. (2006) Sustainability and stakeholder management: the need for new corporate performance evaluation and reporting systems. *Business Strategy and the Environment*. **15**(5), 296–308.

Perry, C. (1998) Processes of a case study methodology for postgraduate research in marketing. *European Journal of Marketing*. **32**(9/10), 785–802.

Perry, L.B., Southwell, L. (2011) Developing intercultural understanding and skills: models and approaches. *Intercultural Education*. **22**(6), 453–466.

Pham, L., Smith, C. (2014) Drivers of agricultural sustainability in developing countries: a review. *Environment Systems and Decisions*. **34**(2), 326–341.

Pham, L. Van, Smith, C., Van Pham, L., Smith, C., Pham, L. Van, Smith, C. (2013) Agricultural sustainability in developing countries: An assessment of the relationships between drivers and indicators in Hoa Binh Province, Vietnam. *Agroecology and Sustainable Food Systems*. **37**(10), 1144–1186.

Pinto, L., Allui, A. (2016) An Analysis of Drivers and Barriers for Sustainability Supply Chain Management Practices. *Journal of Asia Entrepreneurship and Sustainability*. **12**(2). 197.

Popovic, T., Barbosa-Póvoa, A., Kraslawski, A., Carvalho, A. (2018) Quantitative indicators for social sustainability assessment of supply chains. *Journal of Cleaner Production*. **180**, 748 768.

Pulla, V., Carter, E. (2018) *Employing Interpretivism in Social Work Research*.

Qiang, T., Chen, L., Zhang, Q., Liu, X. (2018) A sustainable and cleaner speedy tanning system based on condensed tannins catalyzed by laccase. *Journal of Cleaner Production*. **197**, 1117–1123.

Qorri, A., Mujkić, Z., Kraslawski, A. (2018) A conceptual framework for measuring sustainability performance of supply chains. *Journal of Cleaner Production*. **189**, 570–584.

Raghava Rao, J., Chandrababu, N.K., Muralidharan, C., Nair, B.U., Rao, P.G., Ramasami, T. (2003) Recouping the wastewater: A way forward for cleaner leather processing. *Journal of Cleaner Production*. **11**(5), 591–599.

Rahdari, A.H., Rostamy, A., Asghar, A. (2015) Designing a general set of sustainability indicators at the corporate level. *Journal of Cleaner Production*. **108**, 757–771.

Rajak, S., Vinodh, S. (2015) Application of fuzzy logic for social sustainability performance evaluation: A case study of an Indian automotive component manufacturing organization. *Journal of Cleaner Production*. **108**, 1184 1192.

Rajeev, A., Pati, R.K., Padhi, S.S., Govindan, K. (2017) *Evolution of sustainability in supply chain management: A literature review*. Elsevier.

Ranganathan, J. (1998) *Sustainability Rulers | World Resources Institute*.

Rashid, Y., Rashid, A., Warraich, M.A., Sabir, S.S., Waseem, A. (2019) Case Study Method: A Step-by-Step Guide for Business Researchers. *International Journal of Qualitative Methods*. **18**, 160940691986242.

Rasouli, A.H., Kumarasuriyar, A. (2016) The Social Dimention of Sustainability : Towards Some Definitions and Analysis. . **4**(2), 23–34.

Rauter, R., Jonker, J., Baumgartner, R.J. (2017) Going one's own way: drivers in developing business models for sustainability. *Journal of Cleaner Production*. **140**, 144–154.

Redwood, M., Garwood, R. (2010) How new consumer power is defining activity in the tannery. – Mike Redwood. [online]. Available from: https://www.mikeredwood.com/a-life-in-marketing/how-new-consumer-power-is-defining-activity-in-the-tannery/ [Accessed June 13, 2018].

Reefke, H., Sundaram, D. (2017) Key themes and research opportunities in sustainable supply chain management – identification and evaluation. *Omega*. **66**, 195–211.

Remenyi, D., Williams, B., Money, A., Swartz, E. (1998) *Doing research in business and management : an introduction to process and method*. SAGE.

Resta, B., Dotti, S., Ciarapica, F.E., De Sanctis, I., Fani, V., Bandinelli, R., Rinaldi, R. (2018) Leveraging environmental sustainability for competitive advantage in the Italian Clothing and Leather sector. *International Journal of Fashion Design, Technology and Education*. **11**(2), 169–186.

RFA (2018) What Does Rainforest Alliance Certified™ Mean? | Rainforest Alliance. [online]. Available from: https://www.rainforest-alliance.org/faqs/what-does-rainforest-alliance-certified-mean [Accessed January 28, 2019].

Ridder, H.G. (2017) The theory contribution of case study research designs. *Business Research*. **10**(2), 281–305.

Ritchie, J., Lewis, J., McNaughton Nicholls, C., Ormston, R. (2013) *Qualitative research practice : a guide for social science students and researchers*. Second.

Roberts, S.J.F., Ball, P.D. (2014) Developing a library of sustainable manufacturing practices. In *Procedia CIRP*. Elsevier B.V., pp. 159–164.

Robinson, O.C. (2014) Sampling in Interview-Based Qualitative Research: A Theoretical and Practical Guide. *Qualitative Research in Psychology*. **11**(1), 25–41.

Rowan, J.R. (2000) The moral foundation of employee rights. *Journal of Business Ethics*. **24**(4), 355–361.

SAC (2018) The Higg Index – Sustainable Apparel Coalition. [online]. Available from: https://apparelcoalition.org/the-higg-index/ [Accessed January 28, 2019].

Saeed, M.A., Kersten, W. (2019) Drivers of sustainable supply chain management: Identification and classification. *Sustainability (Switzerland)*. **11**(4), 1–23.

Saeed, M.A., Waseek, I., Kersten, W. (2017) Literature review of drivers of sustainable supply chain management. In C. Jahn, W. Kersten, & C. M. Ringle, eds. *Digitalization in Maritime and Sustainable Logistics*. Hamburg University of Technology (TUHH), Institute of Business Logistics and General Management, pp. 159–184.

Sajjad, A., Eweje, G., Tappin, D. (2015) Sustainable Supply Chain Management: Motivators and Barriers. *Business Strategy and the Environment*. **24**(7), 643–655.

Saldana, J. (2017) *The Coding Manual for Qualitative Researchers (3rd edition)*.

Saldana, J. (2016) *The coding manual for qualitative researchers* .

Salzmann, O., Ionescu-somers, A., Steger, U. (2005) The Business Case for Corporate Sustainability:: Literature Review and Research Options. *European Management Journal*. **23**(1), 27–36.

Sancha, C., Gimenez, C., Sierra, V. (2016) Achieving a socially responsible supply chain through assessment and collaboration. *Journal of Cleaner Production*. **112**, 1934–1947.

Sarkis, J., Helms, M.M., Hervani, A.A. (2010) Reverse logistics and social sustainability. *Corporate Social Responsibility and Environmental Management*. **17**(6), 337–354.

Sarkis, J., Zhu, Q., Lai, K.H. (2011) An organizational theoretic review of green supply chain management literature. *International Journal of Production Economics*. **130**(1), 1–15.

SASB (2020) *FUNDAMENTALS OF SUSTAINABILITY ACCOUNTING (FSA) CREDENTIAL™*. SASB Foundation.

Sathish, M., Madhan, B., Sreeram, K.J., Rao, J.R., Nair, B.U. (2016) Alternative carrier medium for sustainable leather manufacturing – a review and perspective. *Journal of Cleaner Production*. **112**, 49–58.

Saunders, M.N.K., Lewis, P., Thornhill, A. (2016) *Research methods for business students*. 7th ed.

Scott, C., Lundgren, H., Thompson, P. (2011) Introduction to Supply Chain Management. In *Guide to Supply Chain Management*. Berlin, Heidelberg: Springer Berlin Heidelberg, pp. 1–8.

Sedgwick, P. (2013) Snowball sampling. *BMJ*. **347**(dec20 2), f7511–f7511.

Sekaran, U., Bougie, R. (2013) *Research methods for business : a skill-building approach*. Wiley.

Selnes, F. (1993) An Examination of the Effect of Product Performance on Brand Reputation, Satisfaction and Loyalty. *European Journal of Marketing*. **27**(9), 19–35.

Selvaraj, S., Jeevan, V., Rao Jonnalagadda, R., Nishad Fathima, N. (2019) Conversion of tannery solid waste to sound absorbing nanofibrous materials: A road to sustainability. *Journal of Cleaner Production*. **213**, 375–383.

Seuring, S., Muller, M. (2008) From a literature review to a conceptual framework for sustainable supply chain management. *Journal of Cleaner Production*. **16**(15), 1699–1710.

Seuring, S., Müller, M. (2008) Core issues in sustainable supply chain management - a Delphi study. *Business Strategy and the Environment*. **17**(8), 455–466.

Sharfman, M.P., Shaft, T.M., Anex, R.P. (2009) The road to cooperative supply-chain environmental management: trust and uncertainty among pro-active firms. *Business Strategy and the Environment*. **18**(1), 1–13.

Sheehan, B. (2009) What is sustainability? *Control Engineering; Barrington*. **56**(9), 12.

Sheth, J.N., Sethia, N.K., Srinivas, S. (2011) Mindful consumption: a customer-centric approach to sustainability. *Journal of the Academy of Marketing Science*. **39**(1), 21–39.

Shirmohammadli, Y., Efhamisisi, D., Pizzi, A. (2018) Tannins as a sustainable raw material for green chemistry: A review. *Industrial Crops and Products*. **126**, 316–332.

Silvius, G. (2017) Sustainability as a new school of thought in project management. *Journal of Cleaner Production*. **166**, 1479–1493.

Singh, R.K., Murty, H.R., Gupta, S.K., Dikshit, A.K. (2009) An overview of sustainability assessment methodologies. *Ecological Indicators*. **9**(2), 189–212.

Singh, S.C., Gupta, D. (2013) Sustainability: A Challenge for Indian Leather Industry. *Journal of Supply Chain Management Systems*. **2**(4), 37–43.

Skills 4 Smart (2021) European leather industry – Skills4Smart TCLF Industries 2030. [online]. Available from: https://s4tclfblueprint.eu/project/tclf-sectors/european-leather-industry/ [Accessed March 29, 2021].

Śmiechowski, K., Lament, M. (2017) Impact of Corporate Social Responsibility (CSR) reporting on pro-ecological actions of tanneries. *Journal of Cleaner Production*. **161**, 991–999.

Smith, B. (2018) Generalizability in qualitative research: misunderstandings, opportunities and recommendations for the sport and exercise sciences. *Qualitative Research in Sport, Exercise and Health*. **10**(1), 137–149.

Smith, J.A., Osborn, M. (2015) Interpretative phenomenological analysis as a useful methodology for research on the lived experience of pain. *British Journal of Pain*. **9**(1), 41–42.

Smith, P.A.C. (2011) Elements of organizational sustainability. *The Learning Organization*. **18**(1), 5–9.

Society for HIuman Resource Management (2012) Sustainability: What is corporate sustainability, and how can HR help make a business case for it? [online]. Available from: https://www.shrm.org/resourcesandtools/tools-and-samples/hr-qa/pages/businesscaseforsustainability.aspx [Accessed April 4, 2018].

Sodhi, M.S., Tang, C.S. (2018) Corporate social sustainability in supply chains : a thematic analysis of the literature. *International Journal of Production Research*. **7543**.

Spangenberg, J.H., Bonniot, O. (1998a) *A Service of zhw Sustainability indicators: A compass on the road towards sustainability Sustainability Indicators-A Compass on the Road Towards Sustainability*.

Spangenberg, J.H., Bonniot, O. (1998b) Sustainability Indicators-A Compass on the Road Towards Sustainability.

Staniškienė, E., Stankevičiūtė, Ž. (2018) Social sustainability measurement framework: The case of employee perspective in a CSR-committed organisation. *Journal of Cleaner Production*. **188**, 708–719.

Statista (2021a) • Leading exporters of leather worldwide 2019 | Statista. [online]. Available from: https://www.statista.com/statistics/1043663/leading-exporters-of-leather-worldwide/ [Accessed November 15, 2021].

Statista (2021b) • Leather goods market value worldwide 2016-2021 | Statista. [online]. Available from: https://www.statista.com/statistics/861562/leather-goods-market-value-worldwide/ [Accessed December 8, 2021].

Stock, J.R., Boyer, S.L. (2009) Developing a consensus definition of supply chain management: a qualitative study. *International Journal of Physical Distribution & Logistics Management*. **39**(8), 690–711.

Strezov, V., Evans, A., Evans, T. (2013) Defining sustainability indicators of iron and steel production. *Journal of Cleaner Production*. **51**, 66–70.

Svensson, G., Høgevold, N.M., Petzer, D., Padin, C., Ferro, C., Klopper, H., Sosa Varela, J.C., Wagner, B. (2016) Framing stakeholder considerations and business sustainability efforts: a construct, its dimensions and items. *Journal of Business & Industrial Marketing*. **31**(2), 287–300.

Syed, M., Saleem, T., Shuja-ur-Rehman, S.-R., Iqbal, M.A., Javed, F., Khan, M.B.S., Sadiq, K. (2010) Effects of Leather Industry on Health and Recommendations for Improving the Situation in Pakistan. *Archives of Environmental & Occupational Health*. **65**(3), 163–172.

Taticchi, P. (2013) Sustainability Measurement and Reporting: Impacts on Finance, Stakeholders Communication and Internal Measurement Practices. In P. Taticchi, P. Carbone,

& V. Albino, eds. *Corporate Sustainability*. Berlin, Heidelberg: Springer Berlin Heidelberg, pp. 221–231.

Thiétart, R.A. (2001) *Doing management research : a comprehensive guide*. SAGE.

Touboulic, A., Walker, H. (2015) Theories in sustainable supply chain management: A structured literature review. *International Journal of Physical Distribution and Logistics Management*. **45**, 16–42.

Tracy, S.J. (2010) Qualitative Quality: Eight "Big-Tent" Criteria for Excellent Qualitative Research. *Qualitative Inquiry*. **16**(10), 837–851.

Truss, C., Shantz, A., Soane, E., Alfes, K., Delbridge, R. (2013) Employee engagement, organisational performance and individual well-being: Exploring the evidence, developing the theory. *International Journal of Human Resource Management*. **24**(14), 2657–2669.

Uddin, S., Ali, S.M., Kabir, G., Suhi, S.A., Enayet, R., Haque, T. (2019) An AHP-ELECTRE framework to evaluate barriers to green supply chain management in the leather industry. *International Journal of Sustainable Development and World Ecology*. **26**(8), 732–751.

UNIDO (2010) Future Trends in the World Leather and Leather Products Industry and Trade.

Unilever (2017) Report shows a third of consumers prefer sustainable brands | News | Unilever global company website. [online]. Available from: https://www.unilever.com/news/Press-releases/2017/report-shows-a-third-of-consumers-prefer-sustainable-brands.html [Accessed May 1, 2018].

Valenti, W.C., Kimpara, J.M., Preto, B. de L., Moraes-Valenti, P. (2018) Indicators of sustainability to assess aquaculture systems. *Ecological Indicators*. **88**, 402–413.

Vallance, S., Perkins, H.C., Dixon, J.E. (2011) What is social sustainability? A clarification of concepts. *Geoforum*. **42**(3), 342–348.

Veal, A.J. (2006) *Research methods for leisure and tourism : a practical guide*. Prentice Hall/Financial Times.

Veleva, V., Ellenbecker, M. (2000) A Proposal for Measuring Business Sustainability.: EBSCOhost. *Greener Management International*.

Veleva, V., Ellenbecker, M. (2001) Indicators of sustainable production: framework and methodology. *Journal of Cleaner Production*. **9**(6), 519–549.

Ventresca, M.J., Mohr, J.W. (2017) *Archival Research Methods*. Wiley-Blackwell.

Vos, R.O. (2007) Defining sustainability: a conceptual orientation. *Journal of Chemical Technology & Biotechnology*. **82**(4), 334–339.

Voss, C., Tsikriktsis, N., Frohlich, M. (2002) Case research in operations management. *International Journal of Operations & Production Management*. **22**(2), 195–219.

Wagner Mainardes, E., Alves, H., Raposo, M. (2012) A model for stakeholder classification and stakeholder relationships D. Ribeiro Soriano, ed. *Management Decision*. **50**(10), 1861–1879.

Wagner Mainardes, E., Alves, H., Raposo, M. (2011) Stakeholder theory: issues to resolve D. Ribeiro Soriano, ed. *Management Decision*. **49**(2), 226–252.

Wahga, A.I., Blundel, R., Schaefer, A. (2018) Understanding the drivers of sustainable

entrepreneurial practices in Pakistan's leather industry. *International Journal of Entrepreneurial Behavior & Research*. **24**(2), 382–407.

Waite, M., Hawker, S. (2009) *Oxford paperback dictionary and thesaurus*. Oxford University Press.

Walker, H., Di Sisto, L., McBain, D. (2008) Drivers and barriers to environmental supply chain management practices: Lessons from the public and private sectors. *Journal of Purchasing and Supply Management*. **14**(1), 69–85.

WCED (1987) Report of the World Commission on Environment and Development: Our Common Future - A/42/427 Annex - UN Documents: Gathering a body of global agreements. [online]. Available from: http://www.un-documents.net/wced-ocf.htm [Accessed April 5, 2018].

Welch, C., Piekkari, R. (2017) How should we (not) judge the 'quality' of qualitative research? A re-assessment of current evaluative criteria in International Business. *Journal of World Business*. **52**(5), 714–725.

White, M.A. (2013) Sustainability: I know it when I see it. *Ecological Economics*. **86**, 213–217.

Wiersum, K.F. (1995) 200 years of sustainability in forestry: Lessons from history. *Environmental Management*. **19**(3), 321–329.

Wilson, J.P. (2015) The triple bottom line D. Anne Wiese, Associate Professor Ste, ed. *International Journal of Retail & Distribution Management*. **43**(4/5), 432–447.

Wolf, G., Meier, S., BASF SE. Lin, A., BASF China (2013) Leather and Sustainability: From Contradiction to Value Creation.

Wolf, J. (2014) The Relationship Between Sustainable Supply Chain Management, Stakeholder Pressure and Corporate Sustainability Performance. *Journal of Business Ethics*. **119**(3), 317–328.

Wu, G.C., Ding, J.H., Chen, P.S. (2012) The effects of GSCM drivers and institutional pressures on GSCM practices in Taiwan's textile and apparel industry. *International Journal of Production Economics*. **135**(2), 618–636.

Wu, Y.-H., Lin, M.-M. (2013) THE RELATIONSHIPS AMONG BUSINESS STRATEGIES, ORGANISATIONAL PERFORMANCE AND ORGANISATIONAL CULTURE IN THE TOURISM INDUSTRY. *South African Journal of Economic and Management Sciences*. **16**(5), 1–8.

Xeros Tanning Technologies (2018) Sustainability without Compromise. [online]. Available from: http://www.xerostanning.com/ [Accessed July 28, 2018].

Yawar, S.A., Seuring, S. (2018) The role of supplier development in managing social and societal issues in supply chains. *Journal of Cleaner Production*. **182**, 227–237.

Yin, R.K. (2018) *Case study research and applications : design and methods*.

Yin, R.K. (2009) *Case study research and applications : design and methods*.

Yin, R.K. (2003) CASE STUDY RESEARCH Design and Methods Second Edition.

Yılmaz, M., Bakış, A. (2015) Sustainability in Construction Sector. *Procedia - Social and*

Behavioral Sciences. **195**, 2253–2262.

Zheng, C., Molineux, J., Mirshekary, S., Scarparo, S. (2015) Developing individual and organisational work-life balance strategies to improve employee health and wellbeing. *Employee Relations*. **37**(3), 354 379.

Zhu, Q., Sarkis, J. (2007) The moderating effects of institutional pressures on emergent green supply chain practices and performance. *International Journal of Production Research*. **45**(18–19), 4333 4355.

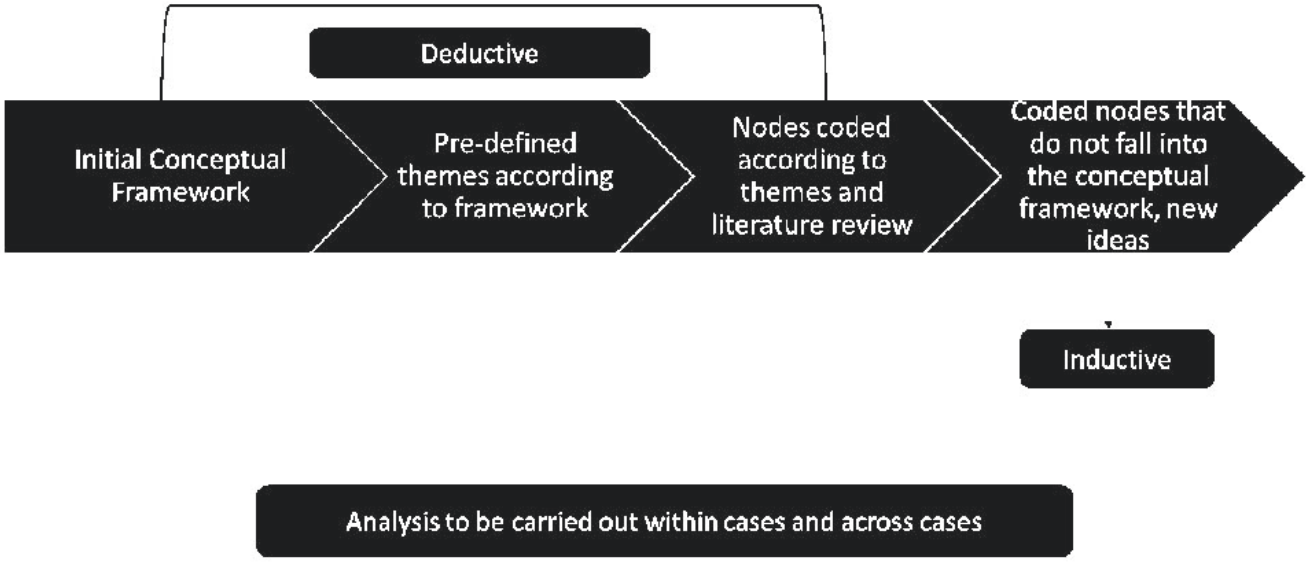
Žukauskas, P., Vveinhardt, J., Andriukaitienė, R. (2018) Philosophy and Paradigm of Scientific Research. *Management Culture and Corporate Social Responsibility*.

Zuriaga-Agustí, E., Galiana-Aleixandre, M.V., Bes-Piá, A., Mendoza-Roca, J.A., Risueño-Puchades, V., Segarra, V. (2015) Pollution reduction in an eco-friendly chrome-free tanning and evaluation of the biodegradation by composting of the tanned leather wastes. *Journal of Cleaner Production*. **87**, 874–881.

Appendix 1: Research Interview Protocol

Interview Questions on Social Sustainability in the Leather Industry
a) What does sustainability mean to you? *a) how does that relate to your organisation?* b) *environmental, social, economic? (define please)* c) Before, it was about the environmental aspect. Now, it is becoming more important to speak about the social aspects. Why is this happening now? d) What are the key practices that relate to social sustainability for your company? {(please give examples) – for example, which practices relate to diversity and inclusion? Or which practices relate to health and safety? etc}
Sustainability Practices, Drivers/Indicator Questions.
b) What does a sustainability driver mean to you? c) What are the drivers/motivators that have been driving your social sustainability activities? d) Do you have indicators to measure your social sustainability performance? If yes, a) What are the reasons behind the selection of these indicators? (e.g. why do you measure health and safety? These reasons could be driven internally or externally) b) What factors have influenced the changes in your sustainability performances over time? (please give examples of how they influence)?
General Questions
e) What challenges does your company face in evaluating social sustainability performance in the supply chain you are dealing with? (please provide examples)? *a) Internal challenges* *b) External challenges* c) *How are you solving these challenges (please provide examples)?* f) How does your company benefit from sustainability efforts and reporting?
g) Does your organisation involve different supply chain stakeholders (e.g. suppliers, customers, employees) etc in social sustainability implementation? If yes, *a) Which stakeholders?* b) *How do you interact or collaborate with tanneries, upstream suppliers and downstream suppliers in social sustainability endeavours?* c) *If no, why?*
h) What supply chain barriers does your organisation face when embarking on social sustainability efforts? (please provide examples)
i) What are your recommendations for a successful sustainability implementation throughout the global leather supply chain?

Appendix 2: Approach to Data Analysis



Appendix 3: Interview Transcripts (Sample)

Researcher 0:00

Very good. I'm very well as well. Thank you very much for taking the time to meet me and sorry for the back and forth on the emails.

Research Participant 0:09

It was fine. No problem.

Researcher 0:11

All right. All right, good to meet you. Yeah, so I'll just introduce myself, my name is Shay for short. And I'm a PhD student from the Faculty of Business on law at the University of Northampton. And my research is focused on sustainability in the leather industry, in specific, looking at social sustainability. I understand a lot of things are being done on environmental sustainability. And the aim of my research was to also explore social sustainability. And yeah, so I mean, I've been interviewing people in different levels of the supply chain from the chemical companies to the tanneries, to associations, and then to the brands as well of which you're one of them. Yep. All right. Yeah. So that's, that's me. And I would just like to remind you that the details of this conversation and the responses will be anonymized. You won't be recognized, the name of your company, or your personal name in the report. All right. Thank you very much. Okay, so we'll, can you tell me about yourself as well?

Research Participant 1:33

Yeah, of course. So, I am the company's CSR coordinator. I've worked for the company for nearly 10 years, but I've been in this role for the last two years. And it really does encompass the whole topic of sustainability under the product, the people and the environment. For leather, that's going to cross over between the product and the environment. Mostly. We do a lot of work with the leather group and we're members of the animal welfare group as well. And I was in Milan last week for Lineapelle, and I went to the LWG meeting. So, we are a very active brand. Leather is probably 90% of our range. So, although we do have some clothing and footwear and jewellery, the majority of what we sell is our leather goods. So that's why we are probably one of the most famous British leather goods brands, and it's why we're investing in our sustainability when it comes to sourcing our material. Okay.

Researcher 2:39

Okay. And I've actually taken a look at your website, regarding the Corporate Social Responsibility aspect. So, is this corporate social responsibility the term itself? Is it the same? Do you use in the same way as you use sustainability?

Research Participant 3:00

It's really tricky, because Corporate Social Responsibility is kind of outdated. Yeah. And we're currently going through the new strategy. So we're trying to rewrite our sustainability strategy with some external consultants. Once that all comes to an end. I hope that CSR is not used and referred to anymore. And that's more of a business term than an actual sustainability term, and it will become sustainability. But we're just in that transition at the moment. Okay.

Researcher 3:29

Okay, interesting. So...

Research Participant (cuts in) 3:30

I view it as... I view my role more as sustainability coordinator than corporate social responsibility.

Researcher 3:37

Okay. Okay. So what does sustainability mean to you personally, and to your company as well?

Research Participant 3:44

So I think, very similar. So the company, sustainability is looking at all of the options that were given across the board, whether that's within our raw materials, or whether it's within how we recruit people, and it's going for the option that is best for the environment, for the business and for people in the way that we operate. So, for example, a sustainable leather might be from Leather Working Group gold rated tannery. Or it might be, you could argue that it's also from a tannery, that's got Quality ISO certification, or you can argue it from a tannery that pays their workers the living wage. So sustainability is really adaptable. And that's definitely one of my tricky, tricky points is everybody's got an opinion. Yeah, it's quite emotional subjects. And so my view of sustainability is probably different to yours and different to my managers and different to the finance advisors. And yeah, so it's definitely a broad description.

Researcher 4:50

Yeah. So what position is your company taking on this?

Research Participant 4:53

So we, as I said, we're in this transition period, where we recognize that there's lots of work to be done. But we also recognize, we can't do everything at once. And so we've got some priorities. One of these is sustainable materials. So like I said, it's looking at every material we use within the makeup of our product. And it's looking for options that are better for the environment and better for our supply chain. Okay, well as bearing in mind the business impact, because a lot of companies who are offering sustainable alternatives will also double the price or triple the price. So it's quite tricky for us in the sourcing team. Yeah, and I think that will change, it will become easier, because people will stop buying the materials that are not considered to be sustainable. And raw materials, supplies will eventually drop away from their range. And so the sustainable version is the only option going forward.

Researcher 5:56

Okay. So looking at the transition period that you going through and I think I mean, I may be wrong, but I think I've checked your website before and I didn't quite get information about CSR or sustainability, as I'm getting now. What has been responsible for this transition? What has been the drivers for this change?

Research Participant 6:21

Um…, there's a lot of factors that have changed it by to the main one is just public interest. Call it the David Attenborough effect, the kind of highlighting of environmental issues has made the board members understand the importance of it. So before I did this role, the person who did it before me she was here for seven years. So we've had a sustainability person within the business for nearly 10 years anyway. But she really struggled to express the interest or the level of importance to the management board. Whereas now I'm in a luxurious position where extinction rebellion, uh, you know, protesting on the streets of London every other day. And there's all the fires in the Amazon that are making us question our leather supply. So there's lots of things that are kind of happening outside of the business that make people think of why aren't we doing more in the business? Okay, so it's probably been a bit of external influence coupled with me, my manager and people that I work with telling people we have to start making these changes. Okay. And also, a lot of other brands and competitors are already talking

about their strategy. So Burberry, Gucci are fantastic, even companies like ASoS and Marks and Spencers are really public about what they do. And as employees, we are customers, are a ASoS, customers of Marks and Spencers and if we can see what they're doing it does make you question your own business.

Researcher 8:03
Okay, so in a nutshell, you would say it's been a mix of external factors. internal factors and employees?

Research Participant 8:12
Yeah, right.

Researcher 8:14
Okay. Any other drivers that could be related to this? That comes to mind?

Research Participant 8:21
No, I think it's just it's changing of the times. It's the public awareness that's kind of drizzled its way within to the business. So yeah, we don't want to get caught behind, you know, our customers do from time to time questions us.

Researcher 8:39
Yeah.

Research Participant 8:41
So it might be something as simple as which country did you source this leather from? Or it might be something really complex? Like, can you tell me that the cow that made your handbag have a happy life? And depending on who's asking, and how kind of emotional, they are about it. So yeah, from time to time, our customers doing quite, probably not as much as I'd expect them to, which is okay, but maybe that's because they do find they can get the answers from our customer service team or from the retail team in stores. So, they don't come to have to be direct.

Researcher 9:13

Okay. Okay. So looking at the nature of the industry, it's. it's more inclined towards environmental sustainability, energy efficiency, waste management, water use, and a lot has been doing a lot of research, a lot of proxy, practical solutions have been given in that direction. Well, now, increasingly, I think you would also agree that there's more focus on reporting on social sustainability, talking about diversity, and, and all of that. So, what's your company's stand on this issue of social sustainability in specific? I mean, what does it mean to you?

Research Participant 10:00

Yeah. so for me, the social and the people side of it can be kind of split into what we're doing internally for our employees, and what we're doing externally in our supply chain, and also in our community. And so internally, for our employees, this is where our human resources department really take over. But it will be things like our gender pay gap reporting diversity and inclusion, training for the next generation, investing in our apprenticeships and internships, and really boosting up the young people in our community. I'm not sure if you're aware, but we've got an amazing apprenticeship scheme here in our location that's been running for about 12 years, leather goods, manufacturing, and some of our apprentices from first year, are now in management or senior management roles. And so it's an excellent scheme that we are really proud to continue running. And also, there's other employee benefits like health care or payroll giving or day off (inaudible), and, and all those sort of nice to haves that make it an attractive workplace, socially, (inaudible) and supply chain that all of the working conditions of the workers overseas, so we manufacture in Turkey, and China and in Vietnam, and I audit them annually or 18 months to ensure that they're getting paid a living wage, they're not working overtime, or too much overtime, or the working conditions are safe, and all those kind of measures around the social audits. And then we also have externally we have our charity committee, who supports lots of projects going on in our local communities around where we operate, and not just here in our factory, but around our stores, and our offices in London. And we ensure that we've always got a charitable voice internally, so we have charities of the year that we partner with, and we really kind of invest in the for the 12 months that we partner with them.

Researcher 12:02

Okay, okay. I think that's really good work and good progress from your site. So looking at the... so on the website, I also read, I read that you are in the stage of developing targets for your sustainability reports, I think. So, looking forward, and just closing our eyes slightly to

environmental sustainability and talking about social sustainability, what indicators have you identified that will be useful for you, in the stage of the supply chain that you are and your company, in terms of social sustainability that you will be measuring?

Research Participant 12:52

Yeah, so it's really tricky to measure people. And we are, we're still putting all those targets, we need to get them approved by the board. But the sorts of things that we're looking for are that we want our supply chain to have a gold standard social audit. So we have a third party audit company, who we work with, and we have done for about six years. And we have developed an audit with them, which again, that enables us to kind of give them a rating or score. And from that we will have a really clear measure. So we will say for example, and I don't know if this is what it will be, but we might say by 2021, a 100% of our external suppliers will be the company's gold standard social compliance or, you know, equivalent whatever, we decided that to be. Internally, the HR department is still trying to figure out how they're targeting our gender pay gap. Which I'll be honest, I haven't been too involved in. Yeah. Um, and yeah, for charity and community, and we've not set any targets apart from to continue supporting our charities here and to introduce ways for our employees to give to charity, whether that's payroll giving, or like volunteering days, and people side of it that way. Really.

Researcher 14:38

So once you have these targets, targets. it's, it's something that you want to work towards, and what do you envisage as that will be your key factors to helping you to reach your targets?

Research Participant 14:56

Is that just for social or for all of them?

Researcher 14:59

That will be for like all of them but if you could talk about social as well, it would be fine.

Research Participant 15:03

Okay, cool. Um, so I think the main thing that's going to help us get there is just getting the buy in internally. So, we've got a really established workforce, a lot of people who've been here for a long time, and people don't like change, which is where I can get to my stumbling blocks occasionally. So, the way that I'm planning to implement some of these changes that we're

going to make, and some of them are very small things, some of them will be more significant, will be explaining behind it. So, there's no point me coming in like a bulldozer and saying, as of Monday, you're not allowed to drink out of plastic water bottles anymore. Yeah. What we need to do is supply them with an alternative bottle and educate them as to why we're doing that. So yeah, it's very much a slowly, slowly process, with lots of explanation behind. I also need some extra internal funding, because the focus on my budget, my cost centre, has always been very minimal, because up until probably last year or the year before, it's not been a big kind of business bonus to have a sustainability strategy. But it's very clear that through the marketing department, that it is definitely a department that's going to grow. So why we'll need some financial backing from the management board. we'll be able to deliver the things that they want, even little things like signing up to be a member of the leather working group is not cheap. And although we've been members for 10 years, I'm sure that they'll be putting their membership fees up again next year, like they do most years. So yeah, it's definitely a financial stumbling block, and then a kind of change of attitude that that will be my big, big drivers to change.

Researcher 16:49
Okay. What have you seen so far in relation to change in relation to the transition of you you're having? What has been the challenges that you've seen so far?

Research Participant 17:01
Most of it is rated to price. So, we've wanted to make some changes within our products to you might need to change the leather or the lining or something to do with the actual physical product. And we're going back to our suppliers asking for their sustainable alternative, and it's doubling the price. So that's probably the trickiest issue we've got at the moment, it goes across the board. It's not just for sourcing more sustainable leather, it could also be for sourcing more sustainable stationary for the stationery cupboard or boxes for the warehouse. It really does feel like sustainability has become an excuse for some suppliers to over inflate their prices. So it's been quite tricky, tricky in some areas, easier in the others. For example, with the boxes in the warehouse, we've been sourcing FSC material for donkey years. So, we've not seen too much of an impact in cost there. But when we're talking about changing leather article from a tannery that's not certified to tannery, that's gold certified, it can be quite considerable now. And the last thing we want is to push that price on to the customer, because the customer should shop with us because they love our brand, regardless, so this is just like they should just be a

little bonus for them. Rather than I don't think we will ever market itself as a sustainable brand. But we also want to be able to have all the backing, so that if we're questions, we can answer those questions to our customers, we don't want to pull up the price by hundred quid and tell them that it's because the leather is sustainable but we want to send the right message. So price is definitely the biggest challenge that we're having so far.

Researcher 18:42

Okay, so why don't you want to publish yourself or brand yourself as a sustainable brand?

Research Participant 18:52

I think we've got some ethical challenges around the fact that we're using an animal by-product. And it's not no matter which way you play it, we will always have people who say but once you use animal products, you're not sustainable. And although I think we will move into the grounds of potentially creating some bags that don't want some products and don't have animal product, much like Dr. Martens and their vegan boots. I don't think we would ever become a vegan brand. We would rather invest in sourcing leather from the right places, and communicating to our customers, they it can be a sustainable material that it is by-product meat industry. And that although there might be more people who are turning to plant-based product here in the UK, actually around the world, there's still enough beef being eaten for us to be able to get the skins. So yeah, it's a big ethical challenge around the sourcing of animal product. So, I think we could say that we're sustainable level brand. But we would never say that we are, you know, the Stella McCartney of the world.

Researcher 20:02

Okay. All right. So given where you source your hides from, I mean, at the stage of the supply chain that you are you have you interact more with the end consumers and then you also get your products from the tanneries. You have interaction with your tanneries on. Yeah. So do you have like sustainability related requirements in your procurement policies when you're getting your products from the lower or the higher end of the supply chain?

Research Participant 20:37

Yeah, so we have our global sourcing principles. And that's our kind of rule book for if you work with us, this is what you would adhere to and it is that we get exactly the same if we sell into Selfridges, Harold's, you know, John Lewis, House of Fraser, they give us their version

of their sourcing principles. So contained within that, we'll have all of the social aspects already spoken about. So you're working hours, your wages, but it will also have the rules that we do and don't so if you're sourcing raw material, roll up leather hide it shipping come from South America you know, it has all of our do's and don'ts within our animals sourcing policy. From that when we onboard a new supplier. we meet with them, we make sure it's really clear that what we do and don't want, they will negotiate our pricing depending on whether we want it to be like LWG certified or whether we just want it to be a European Rawhide. And then we build the relationship on those ethics. It didn't use to be that way. And so before I believe, probably 20 years ago, it would just be who gives the best price, the best quality and now it is best price, best quality, combined with the sustainability aspects such as environmental rating, traceability of the raw material.

Researcher 21:58

Ok. Ok. So, the suppliers, how do you verify their claims in relation to sustainability?

Research Participant 22:07

We have... so with our leather supply chain, we work with some agents, leather agents who are on the ground in Italy, because that's pretty much where all of our leather comes from. And they will be able to either go to the tannery and take paper copies of the traceability documents for us and may have to send them over or it may be that we're working with a tannery that's leather working group certified and they've already got their traceability rating published as part of their audit, which, obviously the LWG auditors and the professionals and what they do. And we are interested to see what new technology comes about. So there's all this talk about DNA traceability, which is very interesting, but we're not sure how that might affect our supply chain, because a lot of the tanneries that we work with are quite small, small and independent, but we've never had an issue when we've questioned where their sources come from. We've never really had a problem of them declaring and showing us a paper trail.

Researcher 23:10

Yeah. Okay, so these smaller companies, I mean, understand the issue of sustainability reporting and measuring your targets, it's, it's a bit of a costly thing for smaller companies to do and tanneries. So how, how do they kind of come up with these measurements or the verifications that that they need to show you as a brand?

Research Participant 23:38

We, we did struggle, one of our main tanneries is very small, we buy probably about 20% of our leather articles from them on average. And we invested in spending some time out there. We paid for some training for them which enabled them to kind of open their eyes to why we were asking the questions rather than me just barking at them every week to say I need this or I need this. And so it was definitely a investment piece in in training the staff within that tannery since it's probably only about 20 people who work there. So that they understand why it's important when your shipment comes in, that you don't mix up the pallets, that you keep the paperwork separate. that you know, follow your paper trail through. And because a lot of it that just, you know, well, we've always done it like this. So we're going to carry on doing it like this, like I said earlier, we're open to change. And also, we then ask them if they're interested in taking part in an LWG audit. And we have paid for our tanneries to have their pre audit kind of training, like one day training, that's got them ready for their audit and it happened and they were rated silver, which is excellent. We've invested in that tannery because we wanted to be able to have that credibility, but that tannery can use that for their other customers as well so it kind of works for both of us.

Researcher 25:04

Okay, so what benefits do you gain from doing this, I mean, that they're like other options like buying out the company or the tannery or just going to another tannery to get your products from them. So what benefits do you gain from helping them in this way even financially and training wise?

Research Participant 25:23

We get the benefit of being able to improve our supply chain. So we're able to have more of our percentage of our raw material certified, we can then convert that to talking to our customers about it if we want to. And it helps us negotiate with other tanneries as well. So if we can say you know, tannery A's is silver, and tannery B is not audited, but you're charging more and then it helps us a little bit with some negotiations. Then I say the main reason is that we want to be doing the right thing. We want our tanneries to continue their amazing work in providing us with beautiful leather. But we need a little bit more from them. The Italian tannery industry is so old school, that actually all the investment that we can do to help get them on their way is positive for the industry, not just for us as a brand.

Researcher 26:21

Okay, so where do most of your suppliers come from? Or is it more of UK or Europe?

Research Participant 26:27

European. All of our tanneries are in Europe. So the majority of them are in Italy. We've got a couple in Germany. Yeah. We don't use any UK tanneries at the moment, but that might change. Who knows. We are very seasonal. So our although we have our core leathers that we seem to carry over each season, we might decide that we want to do "Peyton croc print", and then the next season we might want to do glitter. And the next one we might want to do like..(inaudible). And so we do jump around tanneries, a little bit, but we normally go back to one that we've worked with before rather than sourcing a new one. So we'll probably have maybe six countries that we buy the same articles from each season, and then three or four tanneries that we go to, for the more specific articles.

Researcher 27:21

Okay. All right. So, with this, and the never ending issue of Brexit? How do you think this will affect your sourcing and probably in relation to sustainability and those of other companies you deal with? Do you think this will affect your operations in any way when Brexit particularly kicks in?

Research Participant 27:45

Yeah. I mean, it's really hard. Yeah. And if anybody has given you an answer to this other than we don't know, I will be impressed. We have internally Brexit committee. So that's made up of someone from a sourcing point of view, somebody from finance, somebody from logistics, somebody from sale. So we've kind of cross section of business and got everybody in a room. I think they meet every two weeks in the moment. It's just getting their heads together, figure out what ifs. I believe the logistics team are going to have the biggest impact with import tariffs and all those changes. But until we know for sure what's happening or not happening, it's so hard to predict. And so from what I understand, they've got a few worst case and best case scenarios and ready to go. Best case scenario, nothing changes and we don't need to do any crazy work. Worst case scenario, everything changes, all of our systems would need to be updated, all of our logistics need to be updated. It's really hard to know which way it will go if there's going to be a change or not. Who knows who knows what impact it will have. It's definitely been an uncertain time, when we were in Italy last week, some of our countries did

ask us how are we feeling about Brexit? And really. they didn't seem too worried from that point of view. And so it's interesting to see that they didn't seem… (inaudible). Whereas we're kind of treading carefully I suppose.

Researcher 29:25

Yeah. Okay, moving forward to the challenges internally. What challenges are you facing, or do you think that you'll be facing when it comes to evaluating your social sustainability performances over time, for environmental sustainability it's easier, you can take measurements, what will be the challenges internally for social sustainability performances?

Research Participant 29:57

And I think our biggest challenge will be communicating it positively because sort of in the UK or manufacturing here is fine, we can say that all of our workers paid a living wage, and we don't work overtime, you know, we're here on the ground, we can see what goes on. Overseas, it's a little bit trickier, because there's a cultural thing in the Far East where they work a lot of overtime. And if they feel like their overtime is going to be taken away from them, they will just resign and go to another factory that will pay them their overtime. Yeah, it's a real tricky point that will be a challenge for me, will be communicating that although we're aware of the fact that there is some overtime issues in our supply chain, that we are addressing them as best we can. Ultimately, you know, it's one of those cultural issues that is really difficult for us to change. At China in the summer, and one of our factories has got 4000 workers, only about 250 of them work on our products. But it would get to the end of their day and they'd then switch over to the next production line, who would say producing for Coach or Louis Vuitton, and they work until 10 o'clock at night. So it's not more us directly impacting them, because as far as we're concerned, they've got their order of bags, and they've got them done within a normal working pattern, they might clock off at five o'clock and then work for another five hours for another company, but within the same factory. So it's really tricky for us to be able to kind of communicate that without it seeming like we're running sweatshops. When it comes to wages we're fine, part of our audit, they will take samples from the payrolls, all the factories that we work with, and now they'll do checks across probably 25% of the workers and make sure that for the last six months, they've been paid over the minimum wage, and that the national insurance is being deducted properly and their social security and their health care, or whatever else it is, depending on the country, so we're not as concerned for wages. But I'd say our main social challenge is going to be communicating over time.

Researcher 32:20

Okay, over time, okay, so um, so far since the transition , sustainability efforts have started for the past, almost 10 years now, you know, 10 years. And so what has been the perceived benefits from your sustainability efforts and what will be the perceived benefits of your reporting?

Research Participant 32:45

I think the instant benefits for any sustainability kind of wins that we can put through, are making it an attractive place to work, and also making it appeal to our customer. So nobody wants to work for a company that's, you know, for example, sports direct, they have been in direct through the newspapers. However, many times people want to work for a company, they can be proud of a company that does the right thing. Yeah. And also, it's attractive for customers, if they know that we're doing the right thing, they're more likely to come into our shops and more likely to go on our website and buy something. So that's definitely the first kind of benefit in doing the things. The reporting, it's good for the stock market, our Investor Relations team always asked me what we're doing. They put some pressure on us earlier in the year for us to measure our carbon footprint. because we've never done it before, not because we do not because we didn't want to, it's just that we've never had the money to do it before. So we've now done that. So it means that Investor Relations can now go back to our shareholders and tell them. So I'd say that the reporting is more of a background business side of things. And then the actual nice, fluffy things are more for our employees and our customer. Okay.

Researcher 33:57

Okay. So where do the pressure comes from, from the investors, is from the NGOs? Is it from the customers? Where does the real pressure to actually actively take part in sustainability activities? Where does it come from?

Research Participant 34:14

I think it comes most from seeing what other brands are doing. Okay. So we have had some NGO questions, but not very often, it seems only happened around London Fashion Week. And our customers ask occasionally, but not that often. So yeah, I would definitely say it's more internally, because all of us who work for the company, we'll see what other brands are

doing and wondering what we're doing the same. Okay. Okay. So it's like a competitive streak. Yeah.

Researcher 34:46

Yeah. Okay. So do you work with other brands as well, probably similar brands in relation to sustainability?

Research Participant 34:55

Yeah, definitely. I look at all sorts of brands of Burberry, Gucci, Louis Vuitton and I speak to them regularly. The beauty of this area of work is that we're not competitive against each other. Okay. Because we're all in the same boat. So I know that one of our tanneries, supplies Burberry. So if we wanted to get them to do something, like sign up for audit, we might as well go in together because it puts more pressure on them. So it is a really collaborative industry, and competitive one compared to the sourcing team who are arguing over pricing, see I don't get involved.

Researcher 35:34

Okay, well, that's actually very interesting. Is yours down to the leather industry or do you know if it's the same with other industries? This kind of collaboration and cooperativeness.

Research Participant 35:47

Yeah, I think it's just more of a fashion industry thing, because, like I said, the leather working group meeting last week. So there was me, there was Burberry, Dr. Martens, ASOS and you had big car manufacturers. You have glove manufacturers. And we're all sat around the table saying exactly the same thing. But then you've also got that for other materials. So you might have BCI for cotton, or the responsible wool team. So it seems like these cross functional teams are happening for each material across the board, and it goes the same for social because the audit team that we use also audit for Burberry, for New Look, for Hunter, and they're going into the same factories, because we will essentially we will work with the same people, very similar.

Researcher 36:40

Okay, so I'm looking at the supply chain stakeholders, talking about I think we've spoken about the suppliers and how you deal with them. Worry about the costs, your customers, your end customers, or even immediate customers, probably you have some customers before the end

customers. How do you relate to them in sustainability related issues? How do you work with them?

Research Participant 37:45
So do you mean people like our wholesale customers? department stores?

Researcher 37:49
Yeah.

Research Participant 37:51
Again, it's very collaboratively. So we've recently spoken quite a lot to Selfridges, because they just launched a new buying better scheme. So they label some of their products, whether they're made in UK or they're from buying better leather or buying better wool whatever. So it seems to work both ways. We tell them about all the good stuff we're doing. They tell us about all the good stuff they're doing, kind of share ideas. One of Selfridges kind of partner groups, which is to buying (inaudible) who are the department store in Holland. Yeah, they were fantastic and sharing with me some kind of details of where they were going and what they were going to accept in their shops. So from last year to buying fur stopped offering exotic skin and snakeskin and ostrich, croc skins in their stores. And for us, that means all right, okay, well, that's one less person we can sell it to or one less wholesale account we can sell it to. Fast forward six months. Selfridges's person was saying she got the press release today from February they're not going to allow any exotic in their store. They banned fur as well. So it is a we're kind of led by what our customers are doing, but also telling them about some, you know, things that we're doing to that if they want to put a spotlight on it that they can.

Researcher 39:12
Okay. Okay, so there was one question I was missing. Okay, so what about the end customers themselves? Do you have like special events where you organize or what's the avenue through which they speak to you in relation to product sustainability?

Research Participant 39:36
Well, there isn't really one at the moment. Any of the queries that come direct from a customer will either go via the staff in the store, or it will come via our customer service team based here. And it's not very often that I'd be able to, you know, pick up the phone and talk to a customer.

I know that next year in our flagship store, they were hoping around the launch of one of our new products, they were hoping that we could do a little drop-in like sustainability session. So it might be that they asked me to go along to the store, just I could answer any questions that the staff can answer. Okay. But yeah, again, that's very much early days at the moment, I don't have that much contact with the customer. Yeah. unless they've gone looking for something on our website, haven't found it, and then they'll email customer services.

Researcher 40:28

Okay, so looking at your role, and now that you have dedicated people like sustainability directors, do you think you're doing better in terms of managing the whole process than if they don't?

Research Participant 40:48

Yeah, definitely. Yes. I don't think that we could have made the changes that we've made in the last few years without a dedicated person looking at it. Yeah. It just helps in my role as coordinator, although it's, it's a bit of a silly job title, it does mean, I'm sat in the middle, and I'm helping all the other departments make their decisions. So we haven't got a decision maker within this department, I am the only person in this department actually. And I report straight into the supply chain director. But in an ideal world, it'd be lovely if I could have somebody who's just in charge of the environmental side of things, and somebody who's just in charge of the product side of things and supply chain. That's me dreaming and asking for a big budget. But yeah, I think it's really important businesses, now businesses of a certain size anyway, to have somebody or a team of people who are dedicated to ensuring that sustainability is at the forefront of what the business is doing. It's a selling point for customers now. So there, there needs to be forces behind it. Okay.

Researcher 41:56

Okay. Okay, great. So the last question now, based on your experiences so far, and your learning curve, what will be the recommendations you would give for let's say another brand that's coming up. And wants also wants to like build its sustainability credentials, and practices or even measuring their performances, what will be your recommendations to them?

Research Participant 42:25

I think my recommendation is to really sit back and take stock of your business, what's important to your business. So from us, that's leather, and start to look into any certifications, best practice, look at what competitors are doing. And from that, build some internal targets that don't have to be public. But just some things to start working towards to start talking to colleagues about. And then from there, which is kind of what we've done for the last 10 years. Yeah, from there, we've got our internal heads around it. Now we can start talking publicly and start making it something that marketing might want to get involved in. Okay. Okay.

Researcher 43:01

All right. Well, I wouldn't know if you have any other thing that you would like to add.

Research Participant 43:07

No, I can't think of anything at the moment, if I do, I'll be in touch.

Researcher 43:13

All right, I'll make the transcriptions of the of the interview. And I wouldn't know if you like to see them before I use them if you like to make any corrections or additions.

Research Participant 43:23

No, no, honestly, it's fine. Okay.

Researcher 43:25

Okay. All right. Thank you very much. Sorry.

Research Participant 43:33

Okay, I'll send that consent form over as well

Researcher 43:35

All right. Thank you very much. All right. Thank you. Bye

Research Participant 43:48

Bye.

Appendix 4: Extension of Table 4.13

Drivers	Type of driver	Stakeholder Involved	
	External (Institutional)	**Internal (Organisational)**	**Evidence**
Government demand	Coercive		*"Number 2 is when the government say, if you don't improve on this, I will close your company" (Chemical 2, GDS)*
Meeting standards, regulations and legislation			*"Secondly, there is legislation, of course, coming down the pipeline from the in particular from the European Union and France. So French, French and EU legislation has started to emerge, and we are trying to stay ahead of that."(Chemical 5, ESGD)*
Meeting supplier requirements			*"Yes, yes. Some of them, they outsource such work to the tier one supplier. So, they come forward to and increase the pressure about like that. But the main activities, the main drivers I see come from the OEMs." (Tannery 2, PMS)*
Fulfilling customer needs	Normative		*"Number 1 is that your customer will say, if you don't improve in this field, I will no longer buy from you." (Chemical 2, GDS)*
Reacting to the growing public interest			*"Society no longer demands from companies' success and profit maximization, but also a social responsibility with profit sharing. Images of production and working conditions in low-cost countries weigh on society. The goal is consumption without a guilty conscience." (Tannery 3, GDS)*
Market positioning and size	Mimetic		*"Whereas, the segment of the market we are in, it is important to what we present in terms of sustainability. We do have a buying choice. We do not buy from some suppliers if they cannot proof that adequate animal welfare practices have been implemented." (Tannery 1, SID)*
Mirroring competitors			*"I would definitely say it's more internally, because all of us who work for the company, we'll see what other brands are doing and wondering what we're doing the same. So, it's like a competitive streak." (MANRET 2, GSM)*

Drivers	External drivers	Internal Drivers	Evidence
Driving competitive advantage		Corporate strategy	*"I think it is also some kind of a competition between the company, who is going to be better, which is a good competition." (Chemical 1, VP)*
Economic viability			*"For me driver, for businesses is always to make a profit and if people say something different, they are lying." (Chemical 3, HR)*
Sustainability orientation			*"There is measuring certain goals and CSR is at the heart of our company." (Chemical 2, GDS)*
Attracting best talents		Organisational resources	*"Our company hence attracts people that look for sustainable businesses which is important for us in attracting the best talents that align with our goals." (Tannery 1, SID)*
Family business		Organisational characteristics	*"If you look to our company, it's a second-generation company, we have intrinsic motivation to improve the leather industry on the long run." (Chemical 2, GDS)*
Market Positioning of the company and Size			*"We are more in the spotlight as a company as a bigger company. So, the bigger the company is, the more requirements we get, and external pressure plays a tremendous role." (Chemical 1, HCS)*
Future Success		Organisational culture	*"This is a way to be successful in the future because long term only companies would treat people in a fair way, and not discriminating people, will give fair employment possibilities and we have a very international team." (Chemical 3, HR)*
Intrinsic motivation			*"Yeah, I don't think there are any external factors that would have caused us to take sustainability seriously. That is who we are. Yeah, it's at the core of our brand and we've been serious about it for decades. So, there is no external factors that's making us care." (MANRET 1, GSD)*