Gordon Institute of Business Science
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Responsible Leadership As An Enabler For Sustainability In The Supply Chain Network For Multinationals In South Africa.

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Abstract

Global supply chain disruptions have intensified the need for MNCs, particularly in developing economies such as South Africa, to consider balancing regulatory pressures with long-term sustainable practices. The research examined the intersection of environmental, social, and regulatory pressures and how responsible leaders in MNCs could balance these demands while achieving a long-term competitive advantage and fostering ethical, sustainable supply chains. The research approach used was inductive to develop patterns and themes based on the qualitative data collected.

Data was collected from twelve interview participants focused on six elements of sustainable leadership practices. The defined questions gave flexibility in elaborating on the responses while providing depth and richness. Ten themes emerged from the study, showing how leaders in supply chain management address sustainability issues in procurement and supplier relations and overcome barriers to operations and sustainability. Participant responses underlined the need to incorporate sustainability into an organisation's critical processes, where managers should help advance sustainable initiatives supported by KPIs, decision-making tools, and supplier relationships.

Moreover, the findings of this research study underscore that responsible leadership is crucial for long-term success at multi-tiers of supply relationships. Similarly, leaders who strategically adopt ethics, teamwork, and sustainability are better prepared to navigate socioeconomic and environmental dynamics in the business environment.

Keywords: Responsible leadership, sustainable supply chains, multi-tier management, resource-based view (RBV), strategic sustainability.

Plagiarism Declaration

I declare that this research project is my work. It is submitted in partial fulfilment of the requirements for the Master of Business Administration degree at the Gordon Institute of Business Science, University of Pretoria. It has not been submitted before for any degree or examination at any other university. I further declare that I have obtained the necessary authorisation and consent to conduct this research.

Lebogang Matlala 04 November 2024

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List of abbreviations and acronyms

B-BBEE	Broad-based black economic empowerment
ESG	Environmental, Social and Governance
GSCM	Green Supply Chain Management
KPI	Key Performance Indicators
MNCs	Multinational corporations
NRBV	Natural resource-based view
RBV	Resource-based view
ROI	Return on Investment
RL	Responsible Leadership
SC	Supply Chain
SSC	Sustainable Supply Chain
SSCM	Sustainable Supply Chain Management
VRIN	Value, Rarity, Inimitability and Non-substitute

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Chapter 1: Introduction to the Study

1.1 Introduction

The growing urgency for sustainability in global supply chains posed significant challenges and opportunities for multinational corporations (MNCs), particularly in developing economies like South Africa (Schwenzer & Munoz, 2021). As businesses increasingly recognised the need to balance profitability with environmental and social responsibility, they encountered many obstacles, ranging from regulatory compliance and local supplier capabilities to economic volatility and social inequality (Asmussen & Fosfuri, 2019; Soundararajan, 2023; DeBerge, 2024). This chapter introduces the research topic, focusing on utilising responsible leadership as an enabler for sustainable supply chain networks for multinationals operating in South Africa. The chapter also provides the background of the research, the research purpose, and the business and academic needs.

1.2 Background of the Research Problem

Global supply chains are under pressure from growing concerns regarding the environment, sociology, and economy, which deem the sustainability of supply chains a significant problem. International business organisations dominated the flow of goods and services globally, and thus, supply chain management was critical in realising sustainable development goals (Asmussen & Fosfuri, 2019; DeBerge, 2024). Due to the factors that had to be considered and the facts faced while establishing robust, sustainable supply chains, numerous difficulties was considered in managing sustainable supply chain networks in developing regions, including South Africa (Schwenzer & Munoz, 2021). Developing sustainable supply chains in developing economies has challenges, including infrastructure, regulation, economic conditions, inadequate sustainable resources, technology, and employment skills that affect the organisation's efficiency (Jia et al., 2018). In addition, subsidies in such business environments were elicited by logistical problems, high costs, and restricted market access.

Cross-corporate supply chains contribute to roughly 20% of total environmental impacts worldwide. Stakeholder analysis showed that optimum supply chain management engaged in procurement, transportation, and logistics activities could account for 80% of an organisation's total emissions (CDN Supply Chain Report, 2023). Furthermore, over 90% of companies' environmental impacts originated in their supply chains, including resource extraction, waste generation, and emissions (McKinsey & Company, 2024). Moreover, political instability and opposition to change can impede operations. These complexities resulted from local socio-economic realities, relevant regulations, resource limitations, and international sustainability standards (Friedlingstein et al., 2023). Such dynamics highlight the importance of integrating sustainability into supply chain management.

As global sustainability awareness grows, consumers, investors, and governments have increasingly held corporations accountable for their supply chain practices (DeBerge, 2024). The rise of environmental, social, and governance criteria has placed additional pressure on businesses to demonstrate responsible and ethical practices across all operations. Despite the global efforts, only 7.2% of the global economy has been considered circular, indicating a substantial gap in adopting sustainable supply chain practices (Circle Economy, 2024). Moreover, South Africa's sustainability landscape has presented additional challenges due to the country's socio-economic and environmental context (World Bank, 2024).

In a like manner, South Africa has been a significant player in mining, agriculture, and manufacturing, all resource-intensive and carbon-heavy industries. In 2023, the country contributed approximately 1.13% of global greenhouse gas emissions, ranking 12th among the world's top emitters (Friedlingstein et al., 2023). The high level of emissions was driven mainly by South Africa's dependence on coal, which still accounted for 77% of the country's electricity production (Department of Minerals Resources & Energy, n.d). To this end, the reliance on coal contributed to global climate change and affected local air quality and public health.

Multinational corporations (MNCs) operating in South Africa have been subjected to local regulations that aimed to address these socio-economic disparities. The Broad-Based Black Economic Empowerment (B-BBEE) framework requires companies to contribute to social equity by supporting local procurement, skills development, and

community upliftment (Department of Trade, Industry and Competitions, n.d). While this is the case, there still needs to be conformance to B-BBEE regulations, but there is a slight movement in the levels of transformation (B-BBEE Commission, 2022). Consequently, regulation challenges supply chain management as MNCs must consider international sustainability and local legal and social requirements. Owing to the increasing globalisation of economies and extended supply chains, today's multinational organisations are on the edge and forced to provide sustainable multi-tiered supply chain management (Jia et al., 2019). Moreover, scholars have mainly focused on responsible leadership, which is described as the leader's willingness to ensure that business stakeholder relations work toward the organisational benefit with ethical perspectives (Agarwal & Bahl, 2020).

For this reason, this research study explored the role of responsible leadership considering the current demands on business.

1.3 Business Need for the Study

Mismanagement of responsible leadership can result in negative impacts, especially on globalisation and complex organisational environments (Amir et al., 2022). In 2022, Statistics South Africa highlighted that of the estimated 571,000 children involved in child labour in South Africa, many were operating in agriculture, food production, and other related products (Statistics South Africa, 2021). The 2023 global slavery index showed a similar picture, noting that South Africa has 158,000 employees in modern slavery, including forced labour situations within the supply chains (Walk Free, 2023).

Similarly, a critical sustainability issue in South Africa has been water scarcity. The country was rated the 30th driest in the world with a rapidly growing population (Department of Water & Sanitation, 2022). South Africa has faced chronic water shortages, with less than 9% of rainfall entering rivers (World Resources Institute, 2023). Industries such as agriculture and mining were integral to the South African economy and were heavily impacted by water constraints (Engineering News, 2024; World Resources Institute, 2024). Similarly, droughts and inconstant rainfall patterns, exacerbated by climate change, further strained the supply chain operations of

multinational corporations that relied on these industries (de Almeida Barbosa Franco et al., 2024). In addition to environmental concerns, socio-economic factors have posed significant challenges, with the highest unemployment rates globally reaching 33.5% in Q2 2024 (Statistics South Africa, 2024) and income inequalities with a Gini coefficient of 0.63. To this end, such dynamics have pressured businesses to engage in socially responsible practices such as job creation, local supply development, and investment in community programs (World Bank, 2024).

Likewise, many multinationals pollute in contravention of existing environmental laws in their South African operations (Gaur et al., 2020). For instance, the Centre for Environmental Rights has filed a lawsuit against ArcelorMittal South Africa for violating air quality laws and for having adverse environmental effects within the Vaal Triangle, where local inhabitants have been inhaling air pollution for a long time (Centre for Environmental Rights, 2024). Many cases involved mining companies, including Impala Platinum Holdings Limited and Kumba Iron Ore, which are about water pollution by mining and the rights of communities that suffer the pollution (Daily Maverick, 2023). These cases show that legal actions should be employed to call corporations into question over their business's harm to the environment and the neighbouring communities' rights.

Inadequate or irresponsible leadership incumbents lead to such adverse outcomes, especially when the organisation is globalised and embarks on a higher level or role (Amir et al., 2022). This made supply chain management an issue for multinationals since they had to accommodate certain countries' universal sustainable development objectives and cultural and legal requirements. Today's globalisation of economies and lengthy supply chains pressure multinational institutions to make multi-tier supply chains sustainable (Jia et al., 2019). To this end, this study investigates how responsible leadership has operationalised sustainability in the volatile and complex multi-tiered supply chains of multinational enterprises in South Africa (Jia et al., 2019).

These trends suggest an intensification of the sustainability initiatives in the supply chains of entities in South Africa, resulting from the regulatory requirements and the advancement toward sustainable businesses that call for enhancing employment equity regulations. Moreover, organisations tend to successfully prepare for sustainable growth and long-term development by addressing such challenges (Dou

et al., 2018; Villena & Gioia, 2018; Jia et al., 2019). When managing complex issues, organisations are in a much stronger place to adapt, find long-term solutions and thrive. For this reason, this research study examined the impact of leadership activities across the supply chain and environmental, social, and economic sustainability.

1.4 Academic Need for The Study

Dou et al. (2018) reviewed the determinants of supplier performance in sustainable supply chain networks and noted existing research gaps in green multi-tier supply chain management systems. The authors recommend that subsequent studies cover enhanced environmental performance among sub-suppliers, improved decision-making, and leader roles affecting several levels. In like manner, Shayganmehr et al. (2021) advanced the need to expand the understanding of SCM and sustainability by implementing extraordinary resources for incorporating sustainability into supply chain systems.

According to Grimm et al. (2018), responsible leadership can drive sustainability within supply chains through behaving, deciding, and involving. Similarly, pro-responsible leaders tend to promote sustainability in an organisation through sourcing and minimising the environmental effects on the company and others. In achieving these objectives, through supply chain management partnerships with suppliers and other key stakeholders, leaders foster organisational transparency in the supply chain while effectively addressing both the environmental and social impact of supply chain decisions and business needs and wants. In addition, Grimm et al. (2018) assert the importance of further research to clarify the factors influencing sub-supplier compliance with corporate sustainability standards. To this end, this research study focused on contributing towards understanding multi-tier supply chain management, identified gaps and pinpointed areas for further investigation.

1.5 Purpose of the Research

This research aims to analyse how MNCs in the context of South Africa can manage sustainability risks in the supply chain using internal resources and by practising responsible leadership (Fainshmidt et al., 2019). Moreover, the operating context is orientated towards the actual and potential regulation, other market and stakeholder pressures, and how the MNCs could handle these to realise sustainable competitive advantage. Studies and findings suggest an urgent need to comply to environmental rules, rising customer pressure toward green products, and how investors pay more attention to ESG factors (Qiu et al., 2022). In this regard, MNCs could develop increased effectiveness and sustainable business models using innovation and a thriving corporate culture of responsibility in supply chain management (Suddaby et al., 2020).

1.6 Research Aims

The research examined the role of responsible leadership as an enabler for sustainability within the supply chain networks of multinationals in South Africa. It seeks to understand how responsible leadership can lead MNCs in aligning their internal resources and capabilities to overcome the intersection of environmental, social, and regulatory pressures and how MNCs could balance these demands while achieving long-term competitive advantage and fostering ethical, sustainable supply chains.

1.7 Research Objectives

The research entails the following objectives:

a) The objective focuses on understanding how leadership practices influence the integration of sustainability into supply chain strategies and operations.
b) To evaluate possible issues and opportunities associated with implementing sustainability in South Africa. This includes analysing the impact of factors such

as the regulatory systems, local supply capabilities, economic fluctuations and the social justice issues relevant to a chosen MNC.

c) To assess how MNCs can leverage their internal resources and capabilities while guided by responsible leadership, translate it into a competitive advantage, and encourage positive change and sustainable and ethical business practices.
d) To evaluate how responsible leadership promotes stakeholder engagement and collaboration to enhance sustainability across multi-tier supply chains. Moreover, this study sought to translate research findings into actionable insights that MNCs can use to strengthen their sustainability efforts and achieve long-term success in South Africa.

1.8 Significance of the Study

The study contributes to understanding how MNCs can address sustainability issues arising from supply chains. For example, South Africa offers a challenging market with emerging problems like water stress, energy volatility, and high rates of social inequality (Department of Water & Sanitation, 2022; Statistics South Africa, 2024). These considerations render supply chain management challenging, highlighting the need for MNCs to develop more efficient strategies to address global sustainability goals while considering the respective contexts.

In addition, this research provides new developments on how MNCs could harness strategic resources and responsible leadership to create more robust, responsible, and competitive supply chain networks.

1.9 Chapter conclusion

In conclusion, this section summarises the academic need for a study investigating how responsible leadership can drive sustainability in multinational supply chains, focusing on the influence of supply chain leaders on suppliers' environmental performance and compliance with sustainability standards. By focusing on these

aspects, the research aims to develop practical strategies for managing complex supply chain networks, ultimately contributing to the academic and practical understanding of sustainable supply chain management.

Moreover, this chapter outlined the research problem, which focused on responsible leadership as an enabler for sustainability in multinationals' supply chain networks in South Africa. Similarly, sustainable challenges stemming from environmental, social, and regulatory factors tend to create significant barriers to achieving sustainable and ethical supply chain operations and building a sustainable supply chain complex for MNCs. The chapter highlighted the need for this research by identifying gaps in academic literature and practical implementation of sustainable supply chain practices. While many sustainability frameworks and theories have been developed globally, a lack of research addresses developing economies such as the South African context and the role of resources and leadership in overcoming these obstacles.

1.10 Outline of the research document

The report begins by introducing the research proposal in Chapter 1. Chapter 2 outlines the theoretical foundations of the study, followed by Chapter 3, which summarises the research questions and Sub-questions. Chapter 4 explains the research methodology, ethical considerations, and the approach to ensuring rigour. Chapter 5 presents the findings, and Chapter 6 discusses and connects them to existing academic literature. Finally, Chapter 7 concludes the study by outlining research contributions, recommendations, study limitations, and suggested areas for future research.

Chapter 2: Literature Review.

2.1 Introduction

This chapter deals with the Literature Review that underpins this research investigation. The literature review is the core of academic research as it summarises what has been discovered and is found necessary to draw attention to specific gaps that need further investigation (Snyder, 2019). This literature review will discuss responsible leadership and sustainable supply chain networks, focusing on different methodologies and frameworks. It will also show how sustainable leadership can be seen as an organisational asset that helps in sustainability management. The review also reflects on issues that prevent organisations within the South African context from implementing responsible leadership within their supply chain systems. Subsequent sections explored the theoretical underpinnings of responsible leadership and sustainability, analysed empirical studies that demonstrate leadership's impact on supply chain practices, and identifies areas for future research. Ultimately, this literature review aims to contribute to a deeper understanding of how responsible leadership can catalyse sustainable supply chain networks in South Africa. The theoretical framework utilised was resource-based view theory as an anchoring framework, responsible leadership theory, supply chain, sustainability, sourcing and procurement. The final chapter will support the research questions.

2.2 Theoretical Framework

This section introduces the theories underpinning this study. Figure 1, below, depicts the “resource-based model.” Although this model was applied to establish a competitive advantage through controlling resources within a firm, it can be adapted for this study to illustrate how resources and capabilities can drive responsibility and ultimately improve sustainability among multi-tier suppliers.

Resource-based view

Barney (1991) laid the foundation for the resource-based view framework and articulated the importance of a firm’s internal resources and capabilities in achieving

and sustaining competitive advantage. The resource-based view was explained as a strategic management framework that emphasised the importance of a firm's internal resources and capabilities as the primary sources of competitive advantage (Barney, 2018; Helfat et al., 2023).

Unlike other strategies centring on external market forces or competitive superiority, the resource-based view focuses on the firm's strengths (Helfat et al., 2023). The resource-based view was not limited to the firm's internal and firm-specific resources; it acknowledged that the nature of resources and capabilities was dynamic. The dynamic nature indicated that players had to constantly adjust to market forces, emerging technology, and changes in stakeholder demands for resources. Stakeholder management was vital when sharing and allocating resources (Barney, 2018). In this regard, by meeting different stakeholder needs, firms could augment the set of resources and generate further value, strengthening competitive advantage. The researcher adopted the resource-based view and the tenets posited and supported how companies may deploy their valuable, rare, inimitable and organisation-specific resources to sustain a competitive advantage in a dynamic business environment.

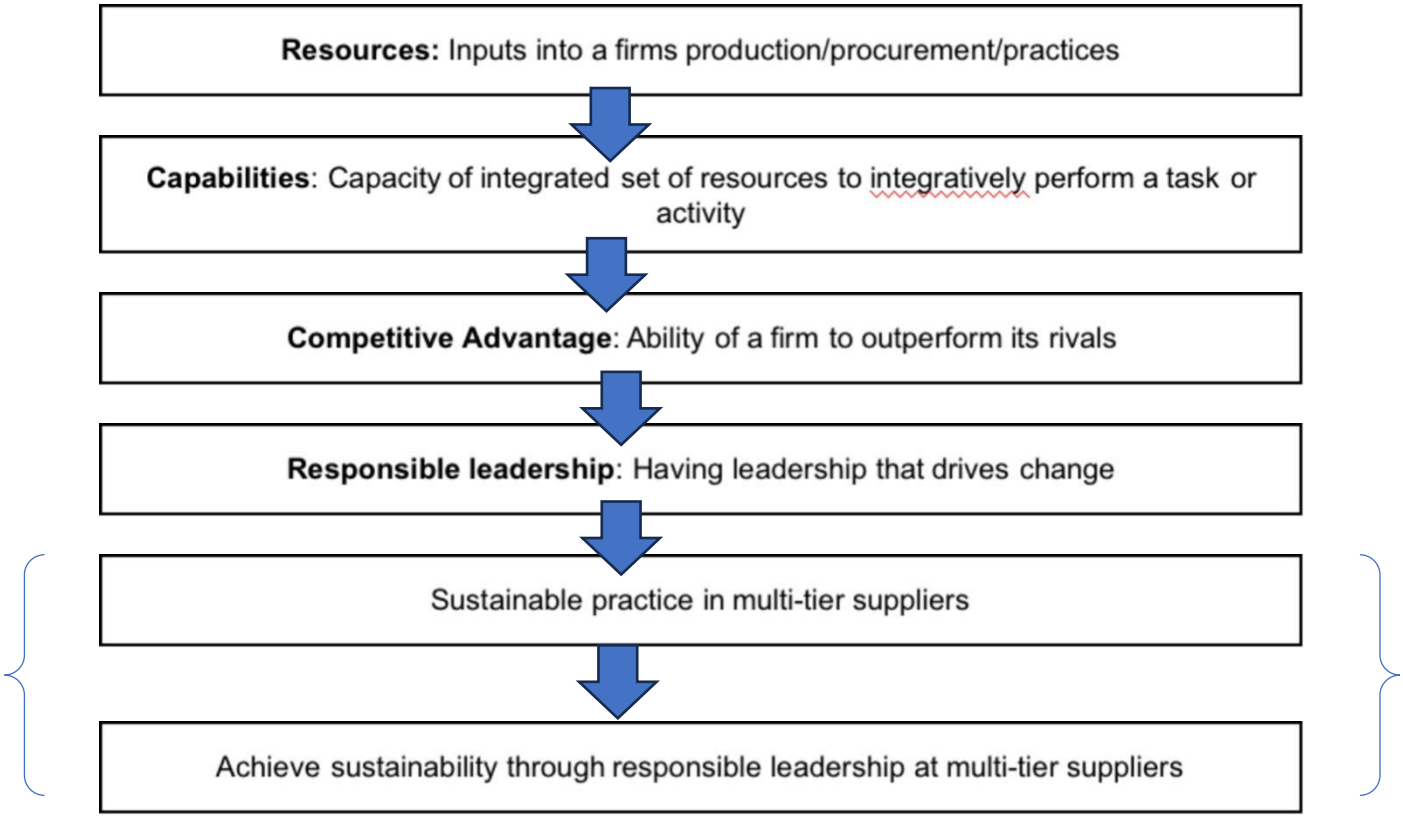
Green Supply Chain Management (GSCM) practices are valuable assets that help a firm improve the organisation's ability to address environmental challenges (Cousins et al., 2019; Khan et al., 2023). It culminated in enhanced environmental and operating cost efficiencies consistent with the RBV, as these practices can be considered superior resources that enhance a firm's competitive advantage in the market. There was also evidence that supply chain traceability as a monitoring tool enabled companies to track environmental problems and improve visibility, establishing that sustainable resource management is a critical determinant of the overline goal (Cousins et al., 2019).

Green innovation was defined as the construction of fresh assets, services, or structures meant to create advances that could lessen the impacts of adverse environmental factors and foster sustainability (Awan et al., 2021a). Some policy subcategories were green product design, green manufacturing, emissions reduction, and energy management (Awan et al., 2021a). To innovate, companies started sourcing raw materials from sustainable sources, which had the double benefit of serving the purpose of the environment while improving a company's image and,

therefore, the customers' loyalty (Agrawal & Lee, 2019). Advancements in the supply chain, including cutting down the cycle of transporting products and services or using electricity-powered vehicles, made the supply chain environmentally friendly (D'Amico et al., 2021). Therefore, green innovation assists firms in serving environmental sustainability goals while enhancing the competitive edge that supports sustainable business success strategies in the market.

It is complicated for MNCs to manage sustainability practices across geographical and multi-tier supply chain networks where resources are restricted. Due to the intertwined nature of barriers, multisensory micro stocks sustainable supply chain management often constrains the functionality of the supply chain Networks (Chand & Tarei, 2021). The resource-based view theory will be adopted to enhance knowledge on sustainability for multinationals in South Africa's multi-tier supply chain networks.

Figure 1: The resource-based view model



Source:. Adapted from (Barney, 2018; Cousins et al., 2019; Chand & Tarei, 2021; Helfat et al., 2023; Khan et al., 2023)

2.3 Dynamic Capabilities

Dynamic Capabilities were identified as a critical source of sustainable competitive advantage, especially in environments characterised by high levels of dynamism (Teece et al., 1997; Salvato & Vassolo, 2018; Fainshmidt et al., 2019; Suddaby et al., 2020; Qiu et al., 2022). Salvato and Vassolo (2018) proffered the conceptual underpinning for the multi-level theory of dynamic regarding resource dynamics. Capabilities provide a focus by which organisations can sustain long-term competitive advantage.

The source of sustainable competitive advantage is dynamic capability-structure configuration and how employees transpose within them for satisfactory execution (Salvato & Vassolo, 2018). More recent research supports this view, stating that the relational nature of dynamic capabilities is critical for maintaining competitive advantage due to trust and collaboration (Köhler et al., 2022). Therefore, this study supports relational dynamic capabilities and individual initiatives in achieving and perpetuating competitive advantage.

At the micro level, dynamic capabilities emerge from integrating behaviour, emotion, and cognition among different actors throughout the firm (Fainshmidt & Frazier, 2017; Salvato & Vassolo, 2018). It also assists staff in understanding when there is a cause to alter the system and act. The interpersonal level amplifies these individual competencies via interaction and creating positive work interdependencies, thereby raising the organisational capacity for creating new or innovative work solutions (Mikalef et al., 2019; Ferreira et al., 2020). In particular, the authors suggested a concept of ‘dynamic capabilities’ associated with the collective and complementary employee skills through which, within collaboration, the total added value of individual competencies to the total organisation is realised.

Leveraging dynamic capabilities, the firms discovered sustainability threats and prospects in supply networks, and this included acknowledging the importance of better disclosure and controlling of supply processes that could impinge on sustainability performance (Heldt & Beske-Janssen, 2023). Leading protagonists kept competition high by reconcentrating their resource base to institutionalise new sustainable practices throughout the business organisation. This was often achieved

by developing strategic partnerships in the supply chain and across sectors to acquire outside organisational resource expertise considered to align with internal strengths and capabilities (Heldt & Beske-Janssen, 2023; Chand & Tarei, 2021; Dou et al., 2018).

Madhavaram and colleagues analysed existing research and concluded that supply chain management significantly impacted corporate strategy in 2023. It was stressed that the implied supply chain management was not a mere operating function but a strategic one that holds promise to provide a competitive edge to the organisation and possibly alter the overall organisational performance (Chand & Tarei, 2021; Madhavaram et al.,2023). The dynamics of creating and directing particular capacities in the supply chain are crucial to sustaining the fit with other corporate strategies (Chand & Tarei, 2021; Madhavaram et al., 2023). This indicated that firms that attempted to build supply chain capabilities incrementally were likely to get improved results and supported the notion that supply chain management was firmly embedded into the corporate strategy and improving competitiveness.

2.4 Competitive Advantage

Companies can mobilise internal resources to achieve competitive advantage by building and exploiting their resource and capability profile that is valuable, rare, inimitable and invulnerable to substitution. Organisations that correctly understood their objective history could accurately extrapolate critical patterns and trends, guiding organisational strategy (Suddaby et al., 2020; Gordon et al., 2020). From this, they could predict change and adoption of the marketplace and the technologies available, thus positioning them better than competitors who did not see these changes.

Those leaders who engaged in interpretive rhetoric could construct persuasive stories of change and legitimate change (Suddaby et al., 2020). From their understanding of past events as successful and others as failures, they encouraged stakeholders to adopt change in styles and tools. These changes supported the need to influence the perception of history to bring about change and transform a new culture of innovation within the organisation.

The amplitude of applying dynamic capabilities to create competitive advantage is primarily determined by the compatibility of strategic position with the firm's internal resources and the external context (Fainshmidt et al., 2019). This theory found that differentiation and low-cost strategies implemented by firms with dynamic and munificent environments were integrated seamlessly, and these firms utilised their dynamic capabilities to gain competitive advantage. It was agreed that the match between dynamic capabilities and the proper strategic orientation constitutes the key to attaining competitive advantage (Newman et al., 2022). These both enabled the companies to react to changes quickly while at the same time keeping costs low.

Social counter-positioning was a strategic response in which companies aligned their organisational stakeholders based on ideological differences and publicly framed organisational strategies and tactics to counter-position rival organisations by choosing social issues which were opposite to those of their competitors (Mohliver et al., 2022). This approach enabled companies to establish another brand image and likely gain market niches aligned with their desired position. Organisations that implement a counter-positioning strategy with suppliers and other partners who have similar values. This alignment increased the supply chain's sustainability and ethicality as a competitive advantage, which helped improve the global reputation and stakeholder trust.

2.5 Responsible leadership

Responsible leadership is a social, relational and ethical process of leadership relations between the leaders and the heterogeneity of the stakeholders inside and outside the firm (Maak & Pless, 2006). Maak and Pless (2006) pointed out that one has to manage positive relations with all stakeholders to properly coordinate the action regarding furthering sustainable goals of business legitimacy and sustainability and the collective ethical vision of the business evolution.

According to Voegtlin et al. (2012), responsible leadership intends to understand the impact of the action taken by the leader on and to all stakeholders. That is because of the effect of enabling the affected stakeholders to participate and constant dialogue

with the stakeholders. Responsible leadership seeks to engage stakeholders in consensual decision-making due to the identification of moral issues in managerial decision-making processes (Voegtlin et al., 2012).

Siegel (2014) examines responsible leadership to research the formulation and implementation of accountability strategies and the development of social responsibility strategies and policies by corporate leaders to execute the agendas of stakeholders, including customers, employees, suppliers, and the community in general. Corporate social responsibility is instrumental in acquiring a competitive advantage.

Responsible leadership is also described as a social-relational and ethical actor ship in social interaction processes and other related activities. It proposes a view of responsibility that goes beyond organisational borders (Muff et al., 2022). It involves some traits of a leader or leadership group, ranging from ethical and values systems to the capacity to establish enduring structured relationships with stakeholders based on their wants and the ability to integrate oneself and the system when creating change that results in positive social and world benefits.

2.6 Sustainability

Villena & Gioia (2018) describe critical aspects of managing sustainability in the supply chain, particularly for lower-tier suppliers. Some of the contributions and insights provided are identifying the riskiest members of the supply chain in terms of sustainability issues as lower-tier suppliers (Villena & Gioia, 2018). Villena & Gioia (2018) highlight the challenges lower-tier suppliers face in addressing social and environmental issues; the research emphasises the importance of focusing on these suppliers to enhance overall supply chain sustainability. Hengst et al. (2020) suggested that action legitimates sustainability strategies. This means mainstreaming sustainability work properly with the traditional work so that sustainability does not appear as an afterthought to the organisational mission. Constant practice of actions that support the idea that sustainability strategies are legitimate at the operational level contributes to directly integrating operational sustainability with mainstream strategy,

thus enhancing organisational legitimacy and successful implementation (Hengst et al., 2020).

The literature review on legitimising sustainability strategies has many insights applicable to firms seeking sustainability projects (Hengst et al., 2020). To successfully implement sustainability strategies, tensions emerging while aligning top management teams may be eased or dealt with through organisations' action per task process. The current study shows that legitimacy building must be utilised at multiple levels as it supports credibility creation and must be applied to guarantee the integration of sustainability practices into crucial business activities (Hengst et al., 2020).

The majority of the countries and organisations thereof pursue the objectives of sustainable development by applying sustainable procurement. According to Zaidi et al. (2019), sustainable procurement is the process through which businesses and policymakers collaborate to provide sustainable development solutions. Sustainable procurement can be defined as "the process of sourcing goods to achieve the best value for the money for a business and in a way that helps both the business and economy while being worst for the environment" (Zaidi et al., 2019). The conceptual framework for implementing sustainable procurement has three elements: It can also discuss the internal and several external aspects of sustainable procurement.

There is evidence showing that procurement strategy can be used to foster the emergence of a green economy at the local level (Nijaki and Worrel 2012). This literature presents the application of economic development programs via green procurement programs and procurement for achieving sustainability initiatives. The activity of any organisation for sustainable development should have internal and external objectives such as transparency, cost and value, internal economy, efficiency and external economy, environment and people. According to the findings of Krieger and Zipperer (2022), sustainable green procurement bears evidence of environmental innovations.

Sustainability has emerged as a critical model that ensures organisations' survival and niche within the contemporary business environment (World Economic Forum, 2022). Hengst et al. (2020) affirm that sustainability is now an outstanding corporate management concern internationally due to rising awareness among customers,

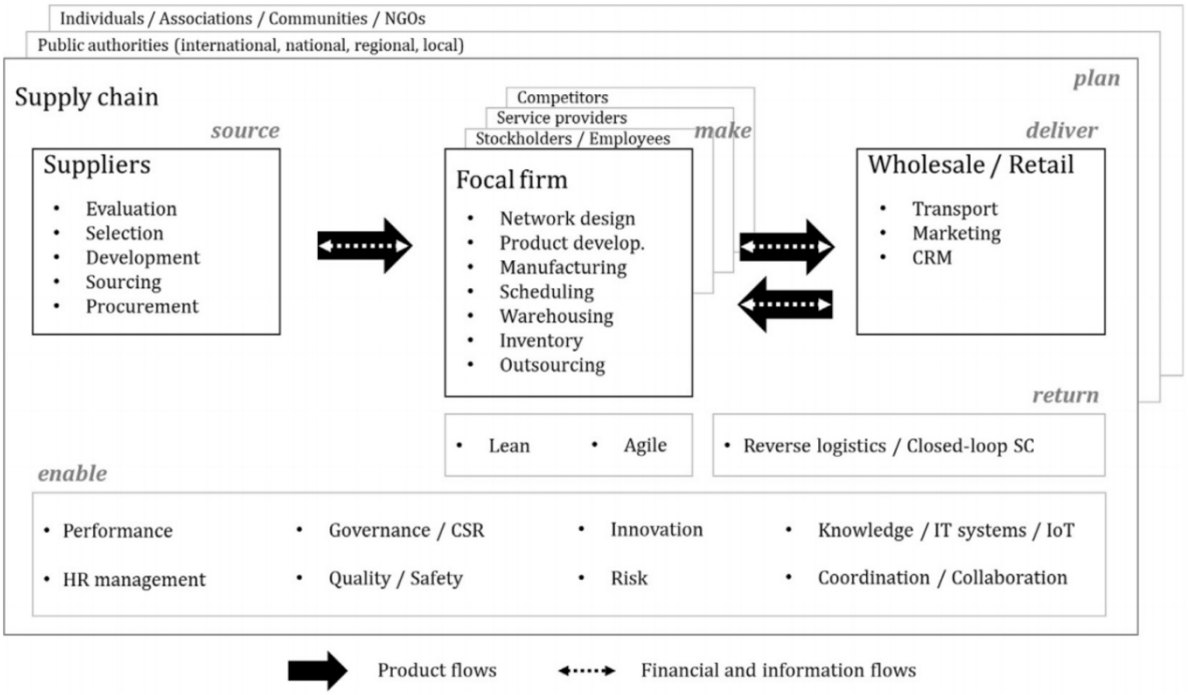
shareholders, employees, and other stakeholders. There are several approaches to sustainability, and several MNCs have adopted sustainability policies in their business. However, only some organisations have taken these efforts significantly and involved their multi-tier suppliers (Villena & Gioia, 2018). Strikingly, these suppliers exhibit higher rates of environmental and social violations, which provides a cognisant operational and reputational risk threat to MNCs; conversely, MNCs continue to neglect this vital segment (Villena and Gioia 2018). Jabbour et al. (2019) argue for multi-tier supply chains because they are becoming more complex and are subject to greater governance control by stakeholders who are placing pressure on MNCs to be held accountable for any social or environmental damage produced by any of its tiers of supply.

However, some general negative externalities for sustainability among MNCs in South Africa include systematic prejudice, a non-adaptive economy, and rigid rules (Ikome et al., 2022). Several MNCs require enhancing the three-pillar concept of sustainable supply chain management, including carbon footprint, energy, waste, and land (Zaidi et al., 2019). Some societal issues include sourcing products from other suppliers who display DIB, per B-BBEE policies indicated by Sibiya and Barnard (2020).

2.7 Sustainable Supply chain

Supply chain management is the steps towards planning, acquiring, and coordinating the supply chain activities effectively to meet the customers' needs. It involves transporting and storing raw materials, work-in-progress and finished products from when they leave their source to when they reach the consumer (Martins & Pato, 2019), as illustrated in Figure 2 below. Supply chain management covers all business activities from end users through acquiring value-adding products, services and information from original suppliers (Cagliano et al., 2018). It becomes a competitive advantage source for a company, regardless of the industry type it belongs to (Oelze et al., 2018).

Figure 2: Supply chain process overview



Source: (Oelze et al., 2018)

The sustainable supply chain was characterised by its ability to integrate and manage three interconnected dimensions: social, environmental, and economic impacts, often called the "triple bottom line" (Dubey et al., 2017). It emphasised that sustainability is not a fixed destination but a continuous journey, where supply chains evolve and learn over time as they adopt more sustainable practices. A sustainable supply chain framework integrates environmental, social, and economic considerations into the supply chain processes (Dubey et al., 2017). Some of the dynamics and building blocks that inform the creation and execution of sustainable supply chains are (Dubey et al., 2017).

A multi-tier supply chain is a system by which goods are manufactured and delivered through several organisational stages, also known as tiers. It is inclusive of the direct suppliers (tier 1) and other nested supplier and customer tiers (tier 2, tier 3, etc.) (Sarkis et al., 2019). This structure can be illustrated by the nested boxes, each box representing the tiers of the supply chain.

The attitudes of supply chain leadership play a vital role in encouraging sustainability learning among various suppliers; however, suitable governance policies should support the supply chain leadership to incorporate practical, sustainable learning (Jia et al., 2019). The framework pointed out that achieving proper governance of a multi-tier supply chain implied high resource engagement. Therefore, this implies that the focal companies should dedicate adequate time to integrating lower-tier suppliers into sustainable strategies. This is important for providing the necessary resources to facilitate effective learning and working.

2.8 Sourcing and Procurement

Ghadimi et al. (2018) Multi-agent systems, an innovation model in the supply chain, are computational systems composed of multiple interacting agents that work together to solve complex problems that were solved beyond the capacity of each stand-alone agent. Multi-agent systems offer a real-time data aggregation process and decision-making for business leaders to make vital decisions accordingly. ←Leaders were better positioned to comprehend the market trends, the customers and the general operations since agents were responsible for collecting and analysing information from the market. Leaders (Nayal et al., 2021). They need to harness innovations in several ways for operation improvement, manufacturing decision-making, and chain supply collaboration within the organisation.

According to De Oliveira and de Souza (2023), supplier evaluation and classification based on their resilience capacity have helped companies choose segment suppliers and control their supply chain in risk world disruptions. With the application of BPR, the researcher realised the significance of addressing supplier management comprehensively by including resilience enhancer and resilience reducer criteria in the supplier selection processes. It assisted organisations in managing some of the specific emerging market conditions, which were unpredictable. P1 Suppliers were required to act and react in a way appropriate to the changes in demand/supply; it was critical to sustain the flow of the supply chain in a volatile world.

2.9 Implementing and Managing Sustainability in Multinational Supply Chains

Multinationals assessed tier-one and lower-tier suppliers using self-assessments, audits, and risk assessments, among other methods (Villena, 2019). Leaders need to conduct evaluations with suppliers frequently to see potential areas for change in compliance with sustainable standards in their chain. Payments and rewards influenced suppliers to embrace sustainability; incentives ensured that through altering incentives, multinationals influenced their suppliers to consider sustainable factors (Villena, 2019). Such incentives may have included offering financial rewards and awards or providing support for putting sustainable measures into practice; these incentives assisted in fostering culture and supplier entrepreneurship towards compliance with sustainable standards. These processes engage internal and external stakeholders in making procurement sustainable through the implementation of sustainability across the supply network and communication.

Managers were expected to take an active role in providing direction on organisational sustainability issues. They managed to create a priority for sustainability and ensure it aligned with the company's goal. This entailed outlining the strategic sustainable environmental and social responsibility vision patterns and anchoring them within the company's vision. Managers encouraged cross-functional cooperation between different organisation functions, including the procurement, R&D, and sustainability departments. They urged the flow of information to the various parties to ensure they appreciated sustainable standards and aimed at similar objectives. This cooperation also meant that there was representation in dealing with all suppliers and industry associations through a shared vision of sustainability. Leaders promoted some of the strategies aimed at sustaining the organisation. They ensured that the other stakeholders in industry forums or conferences and partners with the company adopted sustainable practices. Such strategies fostered sustainability within the organisation and influenced the extended supply chain.

2.10 Gaps and Areas for Improvement

Villena and Gioia (2018) have stressed that future research should investigate the sustainability management of lower-tier suppliers further and the corresponding challenges and opportunities by gaining more detailed insights into how first-tier suppliers manage to work with them. The study's results suggested that further examination of sustainability management practices and processes in supply networks, especially at a lesser level, was needed. Munck and Tomiotto (2019) have available literature that reveals research limitations in the application of decision-making for sustainable companies in different markets. A sustainable multi-tier supply chain is a relatively novel concept in developing countries, and the escalating sustainability issues necessitate concentration on sustainable development (Zaidi et al., 2019). A literature review also shows that the development of a sustainable multi-tier supply chain is also constrained in universities in developing countries.

A. Resource Base View

The current literature has yet to focus on exploring the role of empirical data of buyer-driven knowledge transfer activities for green product and process innovation (Awan et al., 2021b). Despite the existing body of literature considering the relationship between knowledge adoption and innovation performance, the moderating role of buyer-driven knowledge transfer has yet to be examined widely (Awan et al., 2021b). In terms of literature review, there is an identified research gap with longitudinal research mainly used in researching the impact of green supply chain management practices on the performance of organisations (Counsins et al., 2019). The results of the studies that might have mixed to a certain degree the effects of supply chain traceability on environmental performance suggest that green supply chain management practices and their outcomes are intricately linked and still need to be systematically well understood (Counsins et al., 2019).

B. Dynamic Capabilities

Madhavaram et al. (2023) highlighted a need for a more thorough understanding regarding the micro-foundations of capability bundling specific to supply chain

management. There was a need for a more detailed exploration of the policies, processes and organisational structures that underpin practical capability bundling. There is a lack of investigation into the differential roles of various internal and external entities, such as suppliers, in the capability bundling process. Understanding these roles could provide deeper insights into how capabilities are developed and leveraged in the supply chain. More research is needed on the logical integration of green supply chain management characteristics and resource-based view characteristics to enhance value in the supply chain collectively (Khan et al., 2023). There is a lack of research on the specific cognitive competencies required for leaders to use historical interpretations effectively. There was a need to investigate how different forms of historical reasoning, objective, interpretive, and imaginative, could be developed and applied by managers to enhance their strategic decision-making processes (Suddaby et al., 2020).

The above literature identifies significant gaps in SSCM research within the context of multinational firms operating in South Africa's socio-cultural environment. As frameworks such as dynamic capability and RBV posit that sustainability can lead to competitive advantage, empirical evidence on how micro-foundations that include knowledge transfer by suppliers are embedded in SSCM is scarce. Moreover, in contrast to the upper-tier supplier sustainability studies, little empirical work addresses the issues and strategies of lower-tier suppliers: those comprised and more vulnerable to sustainability threats and malicious outside pressures.

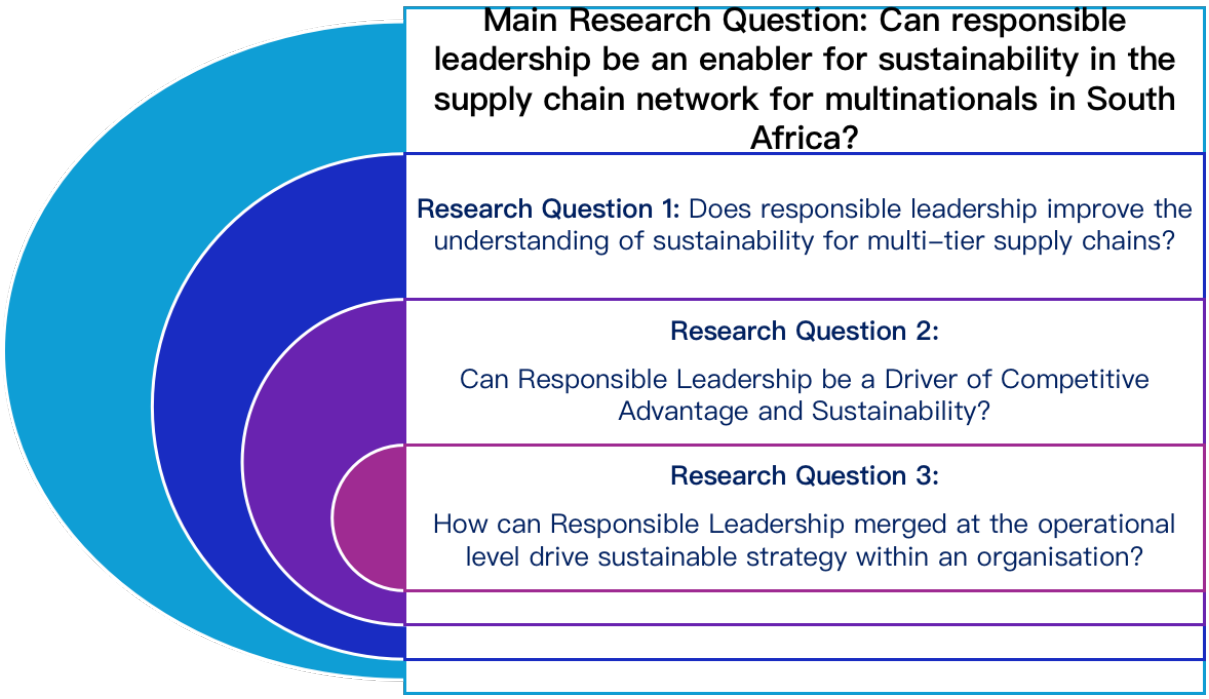
Another gap concerns the learning of the cognitive competencies needed for using historical reasoning, as well as the configurative and relational approaches acquired to make reasonable and sustainable decisions. It is paramount to focus on these areas to cope with these challenges when enhancing SSCM sensitivity regarding sustainability goals and realistic solutions matched to the firm's context at all supply chain stages. This is especially important in growth economies as clients have multiple and sometimes conflicting demands and scarce resources. Hence, managing stakeholder demands appears to be a multi-tiered issue, particularly in emergent economies.

Chapter 3: Research Questions

3.1 Introduction

This research proposal examined **Responsible leadership as an enabler for sustainability in the supply chain network for multinationals in South Africa**. The following research question was derived from the literature in Chapter 2.

Figure 3: Overview of Research Questions



Notes: Compiled by author.

3.2 Research Question 1

Does responsible leadership improve the understanding of sustainability for multi-tier supply chains?

Salvato and Vassolo's (2018) research explains the multi-level theory of dynamic capabilities, which focuses on resource dynamics.

3.3 Research Question 2

Can Responsible Leadership be a driver of Competitive Advantage and Sustainability?

Chand and Tarei (2021) used the resource-based view theory to improve the understanding of sustainability for multi-tier supply chain networks.

3.4 Research Question 3

How can Responsible Leadership merged at the operational level drive sustainable strategy within an organisation?

Amin et al. (2019) stated the outcomes of transformational leadership in achieving sustainable supply chain performance is by applying sustainability capabilities.

The next chapter will explain this research proposal's methodological choices and design.

Chapter 4: Research Methodology

4.1 Introduction.

This chapter details the research approach employed in examining the contribution of responsible leadership in the delivery of sustainable supply chain networks for multinational companies in South Africa. The study's research question was to establish how responsible network leadership practices enhance sustainable outcomes in complex global supply chains. This focus on responsible leadership is paramount since sustainable supply chain practices are emerging and are vital in responding to heightened environmental and social issues despite challenges in the emerging markets of South Africa.

The first section of the chapter gives an account of the research design, thus highlighting the methodological framework undertaken in the study. The chosen design was primarily qualitative because this approach is more effective in analysing various leadership and sustainability issues in supply chain management (Howard-Grenville et al., 2021). Through a qualitative analysis, the research aimed to identify the views, approaches, and practices adopted by leaders in South Africa-based multinational corporations that support sustainability. The research methodology layout is presented in Figure 3 below, which gives a broad view of the complete research work and shows how the components are arranged and connected. An extensive review of the existing literature guided the choice of method and research design to provide rich information. The research method mandates data collection and analysis methods that would enable the exploration of leadership roles in support of sustainable supply chains.

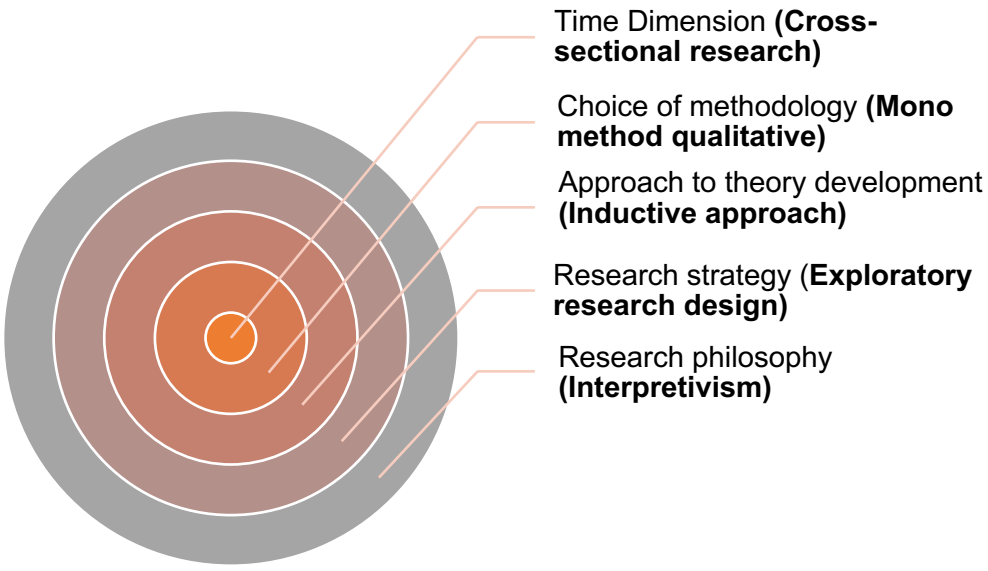
4.2 Research Design

The current research design embarks on the research onion by Saunders and Lewis (2018) as a model that encapsulates the research process into different layers. An advantage of the structure of the research onion is that it guides the process by identifying the steps that define the methodology, which leads to valid and reliable results. The research onion, consisting of five layers: research philosophy, approach

to theories, research strategies, choice of methods, and time horizon, is a logically consistent framework to conduct multifaceted research and address choice decisions.

The methodological decision of this framework involved the use of qualitative methods; this choice was supported by the complexity and context-dependent nature of the investigated phenomena, for which quantitative, discrete data was deemed insufficient. Lastly, the time horizon or the study period was cross-sectional, as it compares the results within one given period that reflects the contemporary approach and attitudes. Applying the research onion provided more structure, which increased the quality of the outcome and helped in better categorisation of the facts regarding the role of responsible leadership as a sustainability driver within supply chains.

Figure 4: Research onion



Source: (Saunders & Lewis, 2018)

4.2.1 Research Strategy

The second concentric circle in the research onion is a research strategy, which in qualitative research is defined as the general approach and structure for the researcher collecting, analysing, and interpreting data (Gover & Duxbury, 2018). An

exploratory research strategy was adopted as it is used when there is limited knowledge about a problem or phenomenon (Swedberg, 2020). The research strategy sought knowledge, posited questions, and evaluated how appropriate leadership impacts SSCM. It allowed freedom regarding different possibilities and phenomena to be obtained within a subject. Castillo et al. (2020) utilised the micro-level of responsible leadership to understand responsibilities, focusing on the contribution of personal traits and early-life events to creating responsible leaders. Considering the study's approach, it suits interpretivism methodologies that concentrate on subjectivism in terms of qualitative data and stories of individuals and their constructed realistic meanings regarding their life experiences. The researcher adopted exploratory research to answer the research question, encompassing a literature review and administering a semi-structured interview protocol (Refer to Appendix 5). The type of research question related to a given research strategy was phenomenology, comprised of semi-structured interviews.

4.2.2 Research Philosophy

In research, philosophy plays a critical role in determining the framework for knowledge generation, the researcher's assumptions about reality, knowledge and interpretation of the results (Al-Ababneh, 2020). Some of the most recognised research philosophies include positivism, realism, and interpretivism, with their different assumptions and uses (Collins & Stockton, 2018). This research relied on an interpretivist epistemology to consider how responsible leadership can nurture sustainability in the supply chain networks of MNCs in South Africa. Interpretivism allowed for a deeper understanding of responsible leadership since their culture, economy and organisation influence these leadership behaviours and sustainability practices of multinationals in South Africa. Longman et al. (2018) argued that leaders' actions and characteristics are shaped by environments and experiences that support the interpretivist approach as having merit in exploring the concept of responsible leaders within such an environment. This study adopted interpretivism, which gives attention to the agency where leaders and their responsibilities of running organisations are not ajar from their social and environmental context, making this approach helpful for analysing and understanding leadership and sustainability.

4.2.3 Approach to theory development

This study adopted an inductive approach to theory development, which seeks to develop theory from the analysis of the research data collected and examined during the research. While the deductive approach starts with the hypothesis retrieved from theory, the inductive approach starts from accumulating the primary knowledge, giving a chance to theories appearing from the results of observations. This method is beneficial when conducting qualitative research because of its principle focus on meanings, contexts, and experiences. This study allowed for a more subtle appreciation of how responsible leadership contributes to sustainability in supply chains.

For context analysis, the researcher groups data into themes, searches for patterns, and looks for relationships between the categories. For example, data units on responsible leadership behaviours and their outcomes for sustainability in South African MNCs were meticulously examined to identify evident patterns to identify general tendencies. In general, using the inductive approach provided leeway for understanding the research topic and the context, hence, the best approach in developing a grounded theory on leadership for sustainability in organisations.

4.2.4 Choice of Methodology

This research used a mono-method choice of qualitative analysis that does not incorporate quantitative research methods to investigate the effects of responsible leadership conduct on sustainable supply chain networks in South African MNCs. A mono-method approach was ideal for this research because ideas of leadership and sustainability and participants' accounts of their practice and experiences are most effectively captured qualitatively. This approach fits nicely into the interpretivist research philosophy and the inductive theory development strategy, strengthening the study's focus on searching for novel contextualised knowledge rather than hypothesis verification.

The mono-method choice guarantees the targeted and stable approach to get as much narrative data that shows the unique context of each participant as possible (Sushil,

2018). Semi-structured interviews are helpful in providing open-ended, relatively structured responses and letting participants provide case details about the behaviours they consider responsible in leadership. This mono-method approach was justified by the study's objective, which creates an in-depth understanding (Ojebode et al., 2018). Since the research focused on qualitative analysis, it can provide more profound patterns in leadership practices that determine the sustainability within the supply chain, adding value to the theory and practice.

4.2.4 Time dimension

This research centred on a cross-sectional time horizon. Hence, the information was gathered within a short period Cross-sectional research design was appropriate for the study with a limited time horizon where the researcher was able to observe present practices, perceptions and other issues relating to responsible leadership and sustainability of multinational supply chains in South Africa within a short time (Hennink et al., 2020).

The time-constrained approach offered an aspect of how business leaders understand and practice responsible leadership as a catalyst to sustainability in the present. Since the major purpose of the cross-sectional study was to grasp the specifics of managing contemporary business and its impact on sustainability, such approach allowed providing target-oriented depiction of the state of affairs at the time of the investigation. Furthermore, the data collection at one time from participants reduced other influences that affect the response hence provided consistent basis of analysis. By choosing cross-sectional horizon, the research presented up-to-date findings which would be useful for practical use on one hand, and further academic development on the other hand, providing the up-to-date outlook on leadership and sustainability corresponding to the modern South African business scenario (Zolfagharian et al., 2019).

4.3 Data collection methods

The data collection method was qualitative, where specific data collection techniques were used to gather descriptive data that necessitated an intricate understanding of subjects' accounts, feelings, and actions to help explain the purposes and effects of

large-scale phenomena (Lim, 2024). Typically, qualitative data collection techniques included interviews, focus group discussions, observations and document reviews (Moser & Korstjens, 2018). For this research, data collection through interviews was deemed appropriate, and thus, the mindful use of semi-structured interviews was adopted in the data collection process as a qualitative approach. The interview questions for the study can be seen in the semi-structured interview protocol outlined in Appendix 5, which has a set of questions underlying the first six research themes. Consequently, the research adopted qualitative techniques that belong to the interpretivism paradigm and the inductive approach that characterises this investigation while focusing on the sense of understanding rather than measuring (Okoli, 2023). Hence, by employing the semi-structured interviews, the researcher could gain the business leaders' experiences in their own words, which is critical to establishing the nuanced and context-related definition of responsible leadership and sustainability (Zolfagharian et al., 2019). Besides, this method ensured that the collected primary data had depth and allowed participants to voice their opinions and ideas in their own words. The collection of qualitative information was considered vital in this research as it captured the rich details of how responsible leadership practices are understood and implemented in supply chains through a richer notion of perception in the South African socio-economic setting.

4.4 Population

The target population in this research was all business leaders concerned with supply chains for MNEs operating in South Africa. It was crucial to choose the subject from this pool of population since it involved participants who have a profound understanding of the research topic (Cilesiz & Greckhamer, 2022). Since the study employed a qualitative research approach and since meaningful and realistic data collection calls for a manageable sample, 12 industry experts were selected (Appendix 7). These individuals were identified based on their knowledge on the supply chain of multinationals in South Africa. Such a purposive approach guaranteed that the sample was feasible, and the data collected addressed the research questions purposefully.

4.5 Unit of Analysis

For the qualitative study, the unit of analysis examined how individual leaders of MNCs in South Africa ensured sustainable leadership practices to obtain sustainable SCM. The level of analysis allowed us to understand responsible leadership behaviours and the enabling or disabling motivational forces for sustaining or reducing sustainability. The level of analysis is the individual leaders of the MNC's supply chains (Saunders & Lewis, 2018).

4.6 Sampling Technique and Size.

The current sampling procedure used is non-probability judgment sampling; the technique enabled the researcher to select participants in a given research depending on their proficiency in that field. This technique is most effective in qualitative research methods as it allows for the accumulation of detailed data from informants with relevant perceptions on the role of responsible leadership in sustainability. Such sampling procedure as judgment sampling enabled the researcher to target individuals who would provide sufficient experience in analysing multifaceted, multinational supply chain networks (Gabarre & Gabarre, 2020). The sample size was large enough to offer a broad view and focus on leadership and sustainability as individuals and their organisations view it based on the researcher's research question.

4.7 Measuring Instrument

According to Mura et al. (2018), to measure the research variables correctly, it is necessary to pay attention to the conditions in which sustainability challenges occur. Therefore, the researcher applied a system thinking approach while developing the measurement instrument. With regards to interviews, data collection interview procedures were developed where open-ended questions were used to capture more information while ensuring that the questions posed did not guide the respondents in a specific direction or provide privileged information to the topic being researched. The particular sequence of questions was chosen to avoid an abrupt transition from one

question to another. A pilot interview was conducted to test the interview questions and to check their relevance and the purposes of data for the researcher. Interviews were conducted online via Microsoft Teams and Zoom, taking approximately 30 to 45 minutes. The interviews were further recorded, allowing adequate data to be captured with the participants' consent.

4.8 Data Analysis

The approach used in conducting the qualitative data analysis for this research was to develop interview responses in textual format by following a procedure highlighted by Saunders and Lewis (2018). This first step enabled all the verbal information to be recorded for further analysis since much information was shared verbally. After requesting formal permission to export sensitive data (Appendix 9), the researcher employed ATLAS.ti coding and categorical analysis to intensify the study's rigour (Appendix 8). Moreover, the primary form of analysis was thematic analysis, one of the most accepted methods of searching, analysing, and describing patterns within the data in qualitative research (Braun et al., 2022). This method was helpful as it enabled the researcher to code the data for themes capturing how responsible leadership affects sustainability initiatives in supply chains. Interconnecting the key themes was beneficial in analysing the research questions because the researcher could attain new perspectives about the theme.

Moreover, the technique known as thematic mapping was used to illustrate the connections between the themes and subthemes and helped to determine how and where different aspects were connected. Thematic analysis played a vital role in this research, given that the application of this technique facilitated the identification of numerous and diverse themes that the participants used to provide a detailed insight into the complex nature of responsible leadership and sustainability in MNCs. In turn, this method helped in the construction of recommendations that can be utilised to guide a range of practices in the field, as well as to enrich theory building.

4.9 Quality Control

To maintain quality in the conception of the qualitative research, the respective quality control measures were adopted to promote internal validity within the particular project, as suggested by (Howard-Grenville et al., 2021). This study used an inductive qualitative research design that enabled moving from the data collection stage to the theory generation stage. It enabled one to out rightly cross off any odd-ones-out results that do not fit within the internal coherency of the particular task at hand, thus keeping the research credible. According to Howard-Grenville et al. (2021), a framework was proposed for the internal consistency of qualitative research, which this study adopted. The collected data further matched to a generic suitability model where data meaningfully connected to the insights found in the literature review and theory development section.

Moreover, the specificity of the research implied a focus on the methods of analysis that were free from manipulations and relatively honest. Paying sole attention to methodological quality was viewed as one of the critical priorities of quality assurance. To ensure high rigour, the researcher employed a structured interview guide, which acted as a checklist guiding the data collection process and ensuring reliability (Harley & Cornelissen, 2022). These measures acting in synergy augment the quality and reliability of the research outcomes available in the study.

4.10 Ethical Considerations

Ethical consideration is a central element in conducting any research, especially qualitative research with human subjects (Ruggiano & Perry, 2019). The researcher would like to respect all the interviewees' rights and dignity while conducting the research, consent form was used (Appendix 9). The study's objectives, the possible risks, and any likely and potential gains of the research were explained to interviewees before participating. This procedure of informing participants enhanced their understanding of roles and willingness to participate. The researcher did not record or discuss any information that personally identified any participants during the interviews. No identifying information of a specific person was used in the proposed

research, and the data collected was stored in a cloud service for protection, Microsoft OneDrive, in this regard. That way, participants' identity was secured, and the information they provided to the research process was safeguarded. In addition, the data collected was archived for ten years and could only be accessed by the officials at the University. This policy conforms to ethical principles and norms and ensures proper data handling and the participants' privacy. Such an approach used by the researcher enabled the participants to trust the research process and guarantee the research's credibility and the welfare of the participants.

4.11 Methodology Limitations

Despite the in-depth and practical research process, methodological limitations affected the findings' reliability and generalisations. However, research on this subject had one major drawback regarding the choice of participants: business executives who were aware of the supply chain processes of multinational companies in South Africa. Although this focus provided detailed investigations of responsible leadership's role in achieving sustainable procurement, it does not capture the overall practice of leadership in industry and across different geographical locations. However, the qualitative design provided a rich description of the findings and, at the same time, weakened the generalisation of findings since they cannot easily be quantified. Wiredu et al. (2024) agreed with this assertion and called for more investigation on leadership behaviour concerning GSCM policies, organisational policies, business environment, and culture.

Furthermore, the literature seemed to lack research on environmental strategy and green innovation focusing on green supply chain management practices. It is also essential for future studies to consider employing the resource-based view for green supply chain management as a strategic firm resource. If these limitations are well addressed in future research, then much improvement will be achieved in analysing supply chain leadership and sustainability issues.

4.12 Chapter Summary

Chapter 4 of this research discussed the method used in the study to examine responsible leadership as a facilitator of sustainability in MNC's supply chain networks in South Africa. The chapter began by outlining the nature of the research design with the help of the research onion presented by Saunders and Lewis (2018). The elements of this framework, the layers of research philosophy, strategy, approach to theory development, choice of methodology, and time dimension, offered a context for the study. The research approach used was inductive to develop patterns and themes based on the data collected from a qualitative point of view. Data collection techniques included interviews that focused on several elements, giving flexibility in elaborating on the defined questions while providing depth and richness to the responses. Based on judgment sampling, a purposive sample of business leaders involved in SC processes was chosen as their knowledge and experience of the topic were desired. The chapter also explained the data analysis strategy, following thematic analysis, where codes are used to determine patterns in the data. The assessment helped develop more detailed insights into the issues that arise with responsible leadership and sustainability. Next, ethical issues and concerns and the methodological constraints were presented. To that end, the research focused on protecting participant identities and ensuring their well-being. The researcher recognised limitations, including the purposive recruitment of specific participants and the qualitative nature of the study, which may limit the generalisability of the data. This chapter provided background for conceptualising research design and its consequences for studying responsible leadership and SSCs.

Chapter 5: Findings

5.1 Introduction

This chapter brings findings from online qualitative interviews with senior supply chain managers of MNCs operating in South Africa. The rationale for such an approach was to understand the role of responsible leadership in improving the sustainability of supply chains in these organisations. Based on the research questions formulated in Chapter Three, the collected data was transcribed, coded and categorised into themes using ATLAS.ti software to provide an opportunity to look for patterns commensurate with this study's theoretical concept. The results are organised in major themes for views on the effects of responsible leadership on sustainability in supply chains. Semi-structured interviews were used to capture insights regarding the leaders' challenges and ability to drive change towards sustainability and create an organisational culture conducive to change. The participants' words are used for the context of each theme. This is because the thematic structure locates the participants' responses in relation to Research Questions, showing how leadership attributes feed into sustainable practices. These findings provide practical methods and guidelines for studying responsible leadership within multinational supply chains while providing the overall structure for further discussion in the following chapters.

5.2 Sample Description

This study involved 12 leaders in the supply chain for multinationals in South Africa, as the study was focused on understanding the enablers of supply chain sustainability for multinationals operating in South Africa's business environment. All participants were engaged in multinational supply chains from varying industries, from specialists to executives, to have diverse views. Appendix 7 illustrates a list of participants interviewed.

5.3 Coding of research themes

Table 1: Coding of the themes of this research study

Themes	Codes
Does responsible leadership improve the understanding of sustainability for multi-tier supply chains?	• Leadership/ leading by example • Collaboration/Partnership • Ethics • Training
Can responsible leadership lead to a competitive advantage of a company and sustainability as an enabler for the sustainability of a multi-tier supply chain for multinationals in South Africa?	• Core Strategy • Sustainable supply chains • Multi-tier suppliers
Can strategies merged at the operational level drive sustainable strategy within an organisation?	• Strategy/Target • Innovation • Key performance indicators • Decision-making process

Source: Own compilation

5.3.1 Research Question 1: Does responsible leadership improve the understanding of sustainability for multi-tier supply chains?

The purpose of this research question was to understand the role of responsible leadership in improving the understanding of sustainability for supply chains, including multi-tier supply chains.

Theme 1: Leadership/ leading by example

Enabling sustainability in any company requires extensive leadership coaching, change management, and different skill sets. Leaders should unlearn what they've been doing wrong and reintroduce innovative ways (Ngang Tang, 2019). It is found that leaders champions good practices regarding sustainability, it is necessary to include everyone within the organisation. When individuals feel part of it, they are more inclined towards participation because they think it's a decision they are part of, and feel motivated to contribute to the objective.

Pertaining to that participant 1 mentioned that:

"*Our company has been a legacy company in South Africa since 1913, so some of the methodologies used in our operations have worked for many years. When people are accountable, they don't want to change them."*

Participant 2 further stated that:

"....*So, it's leadership that includes everyone. It draws people into the decision-making process, listens to their contributions, and ensures that the decision is one that everyone feels part of. It's a desire to achieve a collective objective."*

This kind of leadership is needed to understand organisational operations' impact on the environment and people, which is one of the key factors of sustainability as per (Al-Swidi et al., 2021). As participant 5 mentioned that:

“there is already a pledge from top management, including their Group CEO, who commuted to having some have our company be carbon neutral by 2050.”

Participant 11 further mentioned that,

“one is the competence, but the other one is the value. So integrity as a value and ethics as a value is the basis for you to be creating a competence. You know, if I'm ethical, then I would dump something next to the road, no problem. But I'm ethical, and I'm and I'm gonna say so if you look back to our values, you know, honesty, transparency, all of those topics, there's exactly this. And then if we, if we look at the mindset that you need after that then is that you need to do look strategically into the future. You need to obviously be open for change. You need to make sure that your decisions are accurate, because these are such long term decisions, they are based on solid data and the solid business case…..”

According to Fry and Egel (2021), leadership drives down sustainability targets through KPIs globally, and all regions miss the same targets. Management drives this because it's part of KPIs and also because it's quite an important topic that most companies have committed to on a global scale. The competency required is to be analytical, so it must be measurable. So, firstly, it is important to have the ability to measure your impact and initiate innovative solutions that are different from the conventional approaches.

Participant 5 claimed that:

“…..*like using waste products. That's part of really being innovative as well.”*

It is also important to evaluate the agenda with suppliers, partners, and customers. Suppliers are supposed to work collaboratively to propose those solutions, and customers are supposed to really understand and be educated about more sustainable products. That's how the agenda can be pushed and making it comprehendible to organisation, key stakeholders, like customers and suppliers.

Theme 2: Collaboration/Partnership

By working together, companies can pool resources, share infrastructure, and invest in sustainable technologies that may be too costly for individual companies. Partnerships with local suppliers and stakeholders allow for shared investments in green technologies (Chygryn et al., 2020). Collaboration helps to build more resilient supply chains by diversifying supplier bases and sharing knowledge on risk management as per (Daghar et al., 2021). This is particularly important in South Africa, where economic and environmental uncertainties can affect supply chain stability. Partnerships can help spread the risk, reduce reliance on single suppliers and improve responses to disruptions.

Participant 5 mentioned that:

“It's starting with our stakeholders. So, I've mentioned how we are partnering with suppliers to produce results and educate our customers on more sustainable products. But okay, aside from that, I think it's work to ensure that we are driving the strategy effectively and that everybody in the business understands it globally. And that's in the end. We share with everybody, including the organisation, some of our critical wins with moving towards sustainable products.”

Participant 7 entailed that,

“Sustainability Collaboration, Not yet, not yet. I don't think we collaborate externally. I think we try and collaborate internally. I think this week was the Global

Health and Safety Day on 25th to 26th in that that's where we try and encourage positive behavior from a safety and health point of view, and in that that will be covered with sustainability thrives."

Participant 1 mentioned that,

"*Supplier management is a critical component in the sustainability of our supply chains because it can determine if a supplier fails or succeeds. Some suppliers are very strategic, so their failures will adversely affect the organisation, and some may be tactical, so even if they fail, the impact of their failure will not hamper any growth in the organisation."*

Participant 2 entails that,

"the environmental service providers that do our monitoring compliance in terms of water levels and those monitoring that are necessary to ensure that, you know, we are not damaging the environment."

Given South Africa's significant environmental challenges, such as water scarcity and energy shortages, partnerships with local organisations focused on environmental management can help multinationals implement sustainable practices. Collaborative initiatives can mitigate environmental impacts as participant 3 mentioned that,

"*We support the Roslyn Industrial, a partnership within the IDZ Rosslyn Industrial. Some of the activities include cleaning operations and securing our ongoing viability, such as the inspections of the towers that bring the electricity."*

Theme 3: Ethics

Ethics is a fundamental pillar for responsible leadership in improving sustainability within supply chains (Gurzawska, 2020). It plays a crucial role in shaping decisions, practices and policies that contribute to sustainable outcomes. Ethical leaders can implement policies that mandate sustainable materials and verify suppliers' adherence to environmental and social standards (Huq and Stevenson, 2020).

Participant 1 stated that:

"*It's actually in our policy, where everyone who is in a particular position needs to have what we call a declaration of interest, but for interest in specific sectors or certain suppliers, you need to declare there's nothing untoward. And then whenever there's a tender that has to do with that supply, you need to recuse yourself from the adjudication processes or any processes that may affect your integrity or the integrity of that supply. So those are some of the processes we have in our current company."*

Responsible leaders understand that sustainability is not just about short-term profits but creating long-term value for all stakeholders. Making ethical choices that may involve higher upfront costs for sustainable materials ensures the supply chain remains resilient and future-proof (Gandhi et al., 2023). Ethical decisions often align with a long-term perspective on profitability and corporate responsibility.

Participant 2 stated that,

"*So I think supply chain can come in, in terms of scrutiny, where the sources of our supplies, where our materials are coming from, and to make sure that, you know, we have a whole visibility within the supply chain, in terms of where our materials are coming from, and making sure that you understand our suppliers adhere to high ethical standards that we need to enforce when we put these contracts in place."*

Ethical leaders prioritise compliance with environmental and social regulations such as emissions standards, waste disposal laws and labour laws (Dragomir and Dragomir, 2020). Beyond compliance, they often advocate for higher standards, setting the bar for industry practices. This prevents legal risks, fines and damage to a company's reputation.

Participant 5 entailed that,

"….if a supplier does not have a timber certification, We do not deal with that supplier. If a supplier cannot produce documents to prove that they are mining legally and sustainably, we do not deal with that supplier so effectively; it's taking away from anything unethical as part of our program and committing to it, despite how affordable it may be or how advantageous it would be for the organisation if it goes against our then it's something that we don't engage in."

The responses help in figuring that ethics is a driving force behind responsible leadership in supply chain sustainability. It guides leaders in making balanced decisions that benefit the business and contribute positively to society and the environment.

Theme 4: Training

Essentially, training has proven to be a key component of sustainable leadership in enhancing sustainability in complex multi-tier supply systems especially in matching the understanding of suppliers and customers towards sustainable business (Gong et al., 2018). There is a clear emphasis on the ideas of trainings in the field of sustainability not only offered to suppliers and customers but also to ensure their constant engagement in the process of building sustainability throughout supply chain.

Participant 3 says,

"They have a partner that they used to train suppliers, and this exercise that we are doing as well with them is to train suppliers how to be compliant in terms of having

all the commercial documents. Where do they get the commercial documents? So that's part of our enterprise or supplier development problems that we do."

They are seen as throwaway items more recycled, and we need to segregate them for that purpose

Participant 3 talked about how there was an organization that was to help the suppliers learn about the regulations and the procurement. But such training also helps in the compliance of operations as well as builds up the suppliers' business capabilities, the resources provided and support by the suppliers such as POS system/equipment etc. This emphasis on supplier training is well founded because creating a sustainable supply chain starts from ensuring that the suppliers are compliant and knowledgeable about legal requirements of sourcing.

Moreover, the responses underscore that responsible leadership involves educating stakeholders beyond immediate operational goals. As Participant 5 mentioned that,

"…..Sometimes, it is like using waste products; we are paying a fraction of what we would pay, for example, by substituting cement. So, it works out even from a price point, but in some instances, it's really something that you do as part of your commitment, meaning that at a certain point, it increases the cost a bit. So those are some of the challenges that we face."

The current policy of the company's leaders to "educate the customers" identifies the difficulties of working on the achievement of economic and environmental goals. Consumer training is an area of training effort that further depicts how responsible leadership can bring about cultural change within the market for the adoption of broad sustainable development by pushing for sustainable choice as part of the culture within the market (Sheth & Parvatiyar, 2021). Organisations try to extend this awareness in

partnership with the stakeholders, making the call for sustainable consumption stronger and wider (Nam & Hwang, 2019) .

The challenge between the cost and ecological concerns elaborated by Participant 5 are also realistic and share the concrete issues leaders face. The specification of recycling material and the use of waste products along with superior materials underline efficiency of resources even when sometimes capital costs may rise (De Sa & Korinek, 2021). Thus, for responsible leadership, these financial aspects must be communicated rightly to stakeholders to obtain their support for sustainable initiatives indefinitely (James & Priyadarshini, 2021). This approach emphasizes the value of training as a way of closing knowledge gaps, synchronizing values, and enhancing the coherence of existing approaches to sustainability across the supply chain. Finally, training turns into a management initiative that strengthens the whole supply chain against the calls to sustainability.

5.3.2 Research Question 2: Can responsible leadership lead to a competitive advantage of a company and sustainability as an enabler for the sustainability of a multi-tier supply chain for multinationals in South Africa?

This Research Question's purpose was to understand the role of responsible leadership as a tool to lead a company's competitive advantage and sustainability in the supply chain. The resource-based view as a strategic management framework utilised a company’s internal resources and capabilities as a source of competitive advantage.

Theme 5: Core Strategy

When integrated as a core strategy, responsible leadership can drive competitive advantage and act as a catalyst for sustainable supply chains for multinationals (Bari et al., 2022). By using responsible leadership as a central strategic theme, companies can align their operations with sustainability goals, leading to business success and

long-term resilience. When responsible leadership is part of a company's core strategy it informs long-term profits. This approach anticipates social, environmental and economic challenges and seeks to turn these into opportunities. In South Africa where socio-economic and environmental concerns are pressing, having a responsible strategy positions the company as a leader in addressing these issues.

Participant 1 mentioned that,

"Sustainability strategy involves using resources, such as raw materials, and protecting the environment. This ensures that the resources we use, which come from the environment, do not damage the environment and that the communities from which we source that material are not adversely affected by the operations."

Participant further stated that,

"If it's a hazardous commodity, it must take precautions to ensure that the community and workers are unaffected. This is basically what we do in the mining sector. We specialise in one of our core activities, which is safety and sustainability."

Moreover, participant 10 stated that,

"Legal and regulatory requirements, that's an external body that it's also from a from a regulator perspective. So we have to buy into this. They also come and then look at how we do our operations, and whether it's, it's a agreed under the green principles. There is a South African body that does this specific task on behalf of the government as a regulator operating under the South African government."

Participant 3 mentioned that,

"*Firstly, you must secure your business to be sustainable. To secure your business, you have to be viable, cost viable, firstly, secondly, have a high standard of quality, and thirdly, have a high standard of reliability, which would secure the ongoing business concern. It's becoming more of a criterion for the OEMs that their suppliers practice environmentally sustainable concerns and methods. For this organisation, it*

means we have a unique program in place to be 100% off-grid using renewable energy, which should occur within the next month."

Participant 5 further stated that,

"Okay, so sustainability for us is quite an important topic, being mainly based in Europe, where our whole head office is situated, we have also given commitments to be carbon neutral by 2050, so this is progressive and a huge, huge topic for us as part of our commitments that we've made. So we believe in making the world a better place, not through only our products, but to ensure that we care for the environment."

Implementing responsible leadership as a strategic direction improves sustainability performance and position of multinationals. The research demonstrates that participants' knowledge shows that sustainability has become institutionalised within their organisations. Sustainability focuses differentiated by carbon emission scopes detail a strategic and quantifiable approach, which guides local plans and overall environmental initiatives.

Theme 6: Sustainable supply chains

When sustainability is a core component of supply chain strategy, companies can achieve a sustainable competitive advantage. This involves redesigning supply chain processes to prioritise renewable resources, sustainable sourcing and circular economy practices (Bai et al., 2020). In South Africa where environmental regulations are tightening, sustainable supply chains can help companies maintain compliance and reduce waste and resource efficiency costs.

Participant 1 stated that:

"One of our pillars is sustainable procurement in terms of empowering the local suppliers so that ties in terms of reputation, it ties to the legislation wherein we need to create employment, and we need to empower the youth and reduce unemployment among the youth."

Complying with that, participant 1 further stated that,

"…..*understanding the client and understanding innovation, which is that has given us a competitive advantage over the other upcoming entrance into the market. We are big in innovation. We are big in understanding our clients so we propose solutions to them in the core of in the core business of managing the tailings there"*

Participant 2 mentioned that,

"*We need to do everything we can to minimise our damage to the environment. That means that even now, the suppliers we bring on board or contract with must align with our objectives in terms of preserving the environment. They must have policies that speak to environmental affairs. So, the biggest one at the moment is environmental sustainability."*

Participant 5 stated that,

"*Yeah. So, it goes back to our responsible sourcing laws. So even when contracting with suppliers, they must sign a pledge, which speaks to this. They are as committed as we are towards sustainability. This is what we request from their top manager, to sign that responsible sourcing on their side basically will be something that they will think about as part of our as part of being our supplier…."*

Participant 12 mentioned that,

"….In my previous role within Roche diagnostics, we did have a sustainability policy that focused on the environmental and safety aspect of how employees are commuting to work, how travel is done. What is our green footprint, if I can call it that? Yeah, and I think within procure for I think I do have a module currently that I need to complete. That speaks about what our our policy is around sustainability in general. So I believe that there might be, there is a policy, because I have seen the module available."

A sustainability-focused core strategy helps companies anticipate and manage risks related to environmental degradation, resource scarcity and socio-challenges in South Africa. Responsible leaders drive proactive strategies that enhance supply chain resilience by diversifying suppliers, adopting sustainable materials, and using responsible sourcing laws.

Theme 7: Multi-tier suppliers

The theme emphasises how responsible leadership at the company level can cascade down the supply chain, influencing and driving sustainability across multi-tier suppliers. Responsible leaders established high standards for sustainability and ethical practices for tier 1 suppliers and tier 2 and beyond suppliers (Villena & Gioia, 2018). By setting clear sustainability criteria and expectations across multi-tiers, companies can create a ripple effect that encourages sustainable practices throughout the supply chain. Moreover, implementing responsible leadership practices involves creating visibility across multi-tier suppliers. This means establishing traceability systems that track sustainability metrics up to the final product (Fraser et al., 2020). For multinationals operating in South Africa, transparency helps mitigate risks such as supply chain disruptions, regulatory non-compliance and reputational damage.

Participant 2 mentioned that,

"We are now more interested in knowing who our supplier is; we are interested in also knowing who their suppliers are. So, to ensure you know the downstream supply chain, we need to drill and see where they are getting their products. Are there ethical issues we must be concerned about downstream of the supply chain? So it's about taking it together rather than just knowing your immediate supplier….."

Participant 3 stated that,

“So, but we comply with the ISO requirements, which also form part of our customer’s OEM requirements. So for them to be able to practice and state that they are manufacturing via sustainable use methods, we also have to comply so all of those requirements sort of spill over to the supplier. We also request documents from our suppliers along the same lines, where they have to ensure the packaging is made if we are using wood; it's from sustainable plantations that have been planted.”

Participate 5 mentioned that,

“*Okay, our strategy is to focus our attention on the point of the problem. So, if the tier one supplier is not the one contributing most of the CO two impact, then we push our conversation to the tier two supplier. Still, otherwise, obviously, we can't contract with the tier two supplier in most instances, as we don't have a direct relationship.”*

So there is a responsibility on the tier one supplier; the tier one tier would just manage the supplier. Then, if needed, involvement is deemed necessary to manage a 100% correct and perfect situation.

5.3.3 Research Question 3: Can strategies merged at the operational level drive sustainable strategy within an organisation?

This research study shows that strategies merged at the operational level can effectively drive a sustainable strategy within an organisation, especially when aligned with the broader strategic goals. When sustainability is integrated into daily operations and linked to the company’s overarching objectives, it creates a cohesive approach that reinforces the organisation’s commitment to long-term sustainability.

Theme 8: Strategy/Target

To effectively implement a sustainable strategy, it is crucial to embed sustainability into core operational processes such as procurement, production, logistics and human resource management. When these operational strategies are aligned with the broader organisational strategy, the company's day-to-day activities reinforce long-term sustainability objectives.

Pertaining to that, participant 1 stated that,

"We do, although it is not part of the company's broader strategy. One of them is empowering local communities through supplier and enterprise development initiatives. In South Africa, we must spend 3% of profits on impact. The impact is your net profit before tax, which gets allocated to community projects"

Furthermore, participant stated that,

"How that ties into sustainability is that, as we do mining in the communities or in the communities around that mining site, we need to ensure that the community is empowered because that helps them actually be part of the environmental production and not contribute to the sustainability dimension of the environment."

When firms integrate sustainable practices into strategic operational processes, like procurement and production, logistics, and other activities, organizations achieve alignment of regular operations with sustainable goals. This participants view community empowerments through supplier and enterprises development activities within a larger perspective of tackling local socio-economic and environment issues. This not only meets South Africa's impact investment need but also ensures sustainable development shall find its way through making the affected communities stakeholders in the protection of the environment.

Participant 5 stated that,

"Okay, so, yeah, it's part of our six pillars. First of all, to have that integrated. As part of the strategy, we have set targets with significant milestones, the first being 2030 and the next leading up to 2050 in terms of carbon emission reduction that we must meet. Specifically, for scope three, we must reduce our emissions by 16%, so this is part of our strategy, including my KPIs, to ensure we meet those objectives."

Participant 5 further stated that,

"So this is something that we have in place for suppliers, like our cement suppliers, whether it's high CO two, our steel supplier as well, where there is indeed high CO two, and also, yeah, with some of the suppliers that are supplying some of the key inputs for our energy, as I said, like the suppliers of petroleum products. So yeah, we are working closely with those suppliers, ensuring that they are also committing to the same targets that we have perfected."

What can be identified from the participant's account regarding waste reduction in manufacturing processes is a strategic approach in waste elimination using material that otherwise would have added to the landfill. They endeavor to re-enter in other industries, all kinds of non-conforming products, slow-moving materials and wastes, which can reduce resource consumption as well as wastes, thus demonstrating how sustainability is deeply rooted in every chain of operation to support sustainable and efficient supply chain.

Theme 9: Innovation

Innovations can be used to optimise resource use, reduce waste, and improve process efficiency at the operational level. Innovation advancements can support broader strategic objectives by enabling real-time monitoring of sustainability metrics, predictive maintenance to reduce equipment downtime and automated processes that minimise energy consumption.

Participant 1 mentioned that,

“To manage that dam, there's some equipment that we use before we're using manually, we're using valves and other things, but currently we have innovated a system called romp, which is a remote monitored operating unit that is operated from the control room That can be automated in terms of opening and closing the valves in the dam without any manual person going there…..”

Participant 3 further procured regarding innovation initiatives to drive sustainability,

“We also have programs to reduce packaging regarding the non-required use of environmentally sensitive materials. We have also migrated to 100% electrical: fork truck and commodity movements. So we've got electric tow motors, electric high reach and we use the solar systems to charge these electric vehicles that we use internally.”

Operational teams can contribute to broader strategic goals by focusing on developing sustainable products and services. This could involve using eco-friendly materials in manufacturing or designing products for easier recycling or disassembly and aligning product development operations with the company’s broader sustainability strategy.

Regarding the innovation at product design, Participant 5 shared that,

“That's the integration point, and then making sure that everybody who interacts with where the product is aligned. So you have to get it as early as possible; like on the customer side, we are pushing for our products basically to be the ones that are nominated for architectural buildings.”

This is more so, when participant 5 outlines how sustainability can be adopted pro-actively in product design through involving architects and designers right from the onset. This strategy guarantees that sustainable products are part and parcel of the building process because every product decision is made before the design phase of the company.

Participant 9 further mention that,

“I think the government should probably can put, put in, like, rebates or rewards companies that that sort of are more sustainable, or for innovations in sustainability, you know? So I think potentially the larger corporates can can have sort of easy initiatives where you you know, you offer rewards to come up with more interesting innovations that that help with sustainability out there, that you can do that Corporate or the private sector, generating sort of campaigns and rewards to attract new ideas, right?.....”

Government providing funding or rebates for companies or individuals that come up with these innovations imply towards sustainable innovation.

Theme 10: Key performance indicators

Operational strategies should include specific KPIs directly supporting the company’s broader sustainability objectives. For instance, Jansson and Holmberg (2022) entails that KPIs like reducing greenhouse gas emissions per unit of output or increasing the percentage of sustainable materials used to tracked at the operational level to measure progress against broader sustainability targets. Moreover, operational strategies should continuously monitor sustainability-related metrics to assess performance and make necessary adjustments. Feedback loops that connect operational performance data with strategic planning enable the organisation to fine-tune its approach and ensure that daily activities remain aligned with long-term sustainability goals.

Participant 1 mentioned that,

“Supply performance management reviews. So we're in a certain period; we will review how they have met in the contract. So the, in the contract that we issue to suppliers, even if SLA or a KPI applies, your machine needs to be available. It is 80% of the time. And then, if there's a downtime, you need to attend to that downtime within four hours. And if it's not four hours, from then on, there's a penalty every hour you are late, so we will pay you.”

Participant 5 stated that,

“Okay, as I said, Yeah, it's easier for us since there is already a pledge. So this comes directly from top management, including our Group CEO, who commuted to having some have our company being carbon neutral by 2050, and that is driven down through KPIs globally, for all different regions to miss the same, so definitely, it's driven by management, because it's part of our KPIs. Also, it's quite an important topic that we have committed to globally.”

Participant 6 mentioned that,

“Yes, we do. We do have the KPIs, even though they are not we have not been that strict, but we have something in place that we tracked every quarter and with them so that we can understand if there is a reduction or if they are doing something about it.”

Sustainability goals cut across all departments right from the marketing department to the financial department. Sales and marketing and new product development departments cast and track their KPIs with more sustainability targets since they are directly connected with the customer interface (Westin, 2024). Such an approach ensures that sustainability is embraced throughout the entire organization as a focused priority area governed by clear accountabilities from all the functions.

Theme 11: Decision-making process

The decision-making structures show strategic fit on operational objectives and the sustainability frameworks. The decisions focus on business values and profitability taking into account environmental aspects as well, which shows the financial and environmental logic is equally valued.

Participant 3 mentioned that,

"To ensure you are sustainable, you must first provide your business is sustainable so all our decisions are based on sound business principles. At the same time, we consider the environmental impacts. The management makes those decisions, and that's how we've managed to migrate away from using gas, pork trucks in the plant, and things like that."

Moroever, regarding the supplier vettings for performance, participant 1 stated that,

"So, yeah, those are the initiatives that I can take. In terms of profitability, if there are no sicknesses or stoppages because of the issues I've mentioned, then obviously, we will have, reach our production targets, and be profitable."

This postulates a prevention approach where the organization notices the disruptions that likely to occur and consider sustainability as a measure that fosters continuous growth on productivity and profit. Supplier vetting and performance benchmarks act as a shield to decision making which befitting strategic goals and sustainability.

Participant 5 further mentioned that,

"Okay, as I said, as much as possible, we want to work with the supplier to reduce the emissions. Where feasible, we can look at alternative suppliers where we feel that the non-compliance is going against our values or if the supplier is not interested in it because we get suppliers like that who are not willing to invest. But yeah, so yeah, it always depends."

While organisational constraints may restrict option variations, there is an increasing trend towards sustainable affiliations, particularly in countries that have strict environmental standards. In this way, the company is able to establish a flexible long-term approach to supplier evaluation as well as its supply chain overall as each layer

of decision making in supplier relationship management aligns with its corporate values.

5.4 Challenges

Despite the prevailing progress and goal achievement, there were certain challenges faced by participants. As participant 2 induced that,

"The challenges involve the funding. Suppose we talk of the environmental impact of the mining companies in South Africa to put together programs and programs that are aimed at addressing environmental challenges. It needs resources and funding."

Participant 8 stated that,

"It's really a massive, massive challenge. You know, in South Africa, you would think portals of man. Pothole can be that a 20 ton truck can drive into that pothole, drive for a K and come out. You know, that's the level of what a pothole is. Okay? So the infrastructure is a problem. Even if they've got, we've got massive amounts of water, like water you cannot understand, but we don't have hydropower. But the problem is, the infrastructure to carry the electricity around is not working, you know. Also, water, for example, you have to buy water, and water has to come with a tanker to your office. It's not like you can government open the tap and water comes out. The government doesn't provide that, you know."

Participant 5 mentioned that,

"In the construction space, we work with organisations like the Green Building Council to ensure that our products meet requirements even at the South African level, compared to other regions. The topic is a bit different. It's less mature in South Africa than in other first-world countries, where things like certain taxes or duties are imposed for those who are not complying. At this stage, it's still more voluntary than pursued by other means, like punishment.."

As observed, the challenges apparent in the sustainability initiatives of the participants are based mainly on funding and regulatory issues. Participant 2 also points out that past environmental programs in mining have been seen to call for huge funding, thus may prove to be a challenge. However, Participant 5 adds that due to the fairly young institutions of South Africa, the adherence of businesses to sustainable standards that may be compared to legal norms remains more of a voluntary decision rather than mandatory. This is due to the lack of stiff rules and regulation in the Streets; while the aspect of having better financial returns from its uses such as utilization of fly ash for construction works among others are well recognized. Collectively, all these difficulties explain a number of issues associated with efforts to achieve sustainability improvement in a still fairly young market.

5.5 Chapter Summary

Chapter 5 presented a detailed discussion on how responsible leadership influences the improvement of sustainable procurement in MNCs in South Africa supported by empirical data from interviews with senior managers. Several themes have been elicited after the study showing how leaders in supply chain management address sustainability issues in procurement, in supplier relations, and in overcoming barriers towards operations and sustainability. Participant responses underlined the need to incorporate sustainability into the key processes of an organisation, where managers should help to advance sustainable initiatives supported by KPIs, decision-making tools, and supplier relationships. It further looked at challenges like inadequate funds and lack of policy standardisation that highlighted the difficulties facing efforts to promote sustainable themes in different kinds of regions. However, leaders applied distinct ways to meet sustainability objectives including waste management and carbon footprint initiatives. To be precise, Chapter 5 of the research highlights the value of leadership in managing sustainability dilemmas and promoting change in supply chain networks across the globe.

Chapter 6: Discussion

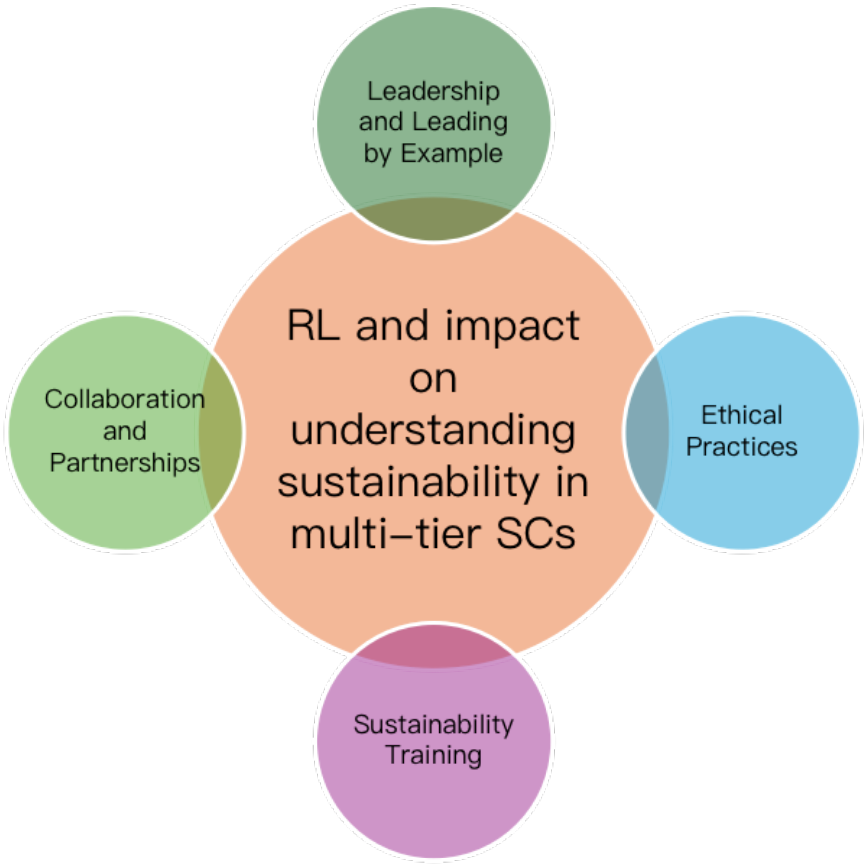
6.1 Introduction

This chapter discusses the key research findings that connect responsible leadership with sustainability within the supply chain networks of multinationals in South Africa. It demonstrates how ethical and transformational leadership can resolve socioeconomic inequity issues and environmental conservation. Drawing on the findings, the chapter describes how leaders promote the stakeholder engagement process to support compliance with international sustainability standards and domestic legislation. Resource scarcity and resistance to change are hindrances to sustainable supply chain management. Finally, an analysis of creating a leadership model for sustainable supply chain networks with references to resilience and engagement of the communities is outlined.

6.1 Research Question 1: Does Responsible Leadership Have an Impact on Understanding Sustainability in Multi-Tier Supply Chains?

The findings discussed in the subsequent part of the work will revolve around the impact of responsible leadership on sustainable concerns in multi-tier supply chains, speaking in unison with responses garnered from participants and aligning with theoretical and empirical data available in the literature concerning strategic management, explicitly touching the RBV. It proposes that resources and capabilities, responsible leadership, and sustainability deliver a competitive advantage for the firm when they are valuable, rare, institutionalised, and immobile (Salvato & Vassolo, 2018). Four main themes emerge: motivation by the head, participation, the cardinalities of unethical behaviour, and awareness exercises, specifically through training. Both discuss how sustainable leadership can embrace sustainability in the complex supply chain. Figure 5 shows a summary of the themes for research question one.

Figure 5: A summary of themes for research question one



Source: Own compilation

Theme 1: Leadership and leading by example

The sustainability of multi-tier supply chains can only be facilitated with leadership that can embody sustainable values and practices. For example, Participant 1 also pointed towards rigidity that operational persistency embarks through firmly grounded first operational methods. This is consistent with the RBV theory, which argues that when leadership is done well, companies can sustainably alter the organisational culture, creating value (Alharahsheh & Pius, 2020). By this, sustained leaders embrace the objectives within their organisational goals and encourage all employees to embrace sustainability, which boosts productivity (Amir et al., 2022; Sajjad et al., 2024). This

differs from the traditional organisational models, with distinct structural layers supporting sustainable development at all stages (Castillo et al., 2020).

However, sustainability issues require innovative leadership, and the best strategy for their success is to use a hybrid model. Another example reported by the participants is that virtually, the definite and tangible results and quantifiable performance, as well as ideas like recycling waste, are vital. This is in line with literature done earlier on the resource capability approach as a way of achieving competitive advantage. Chand and Tarei (2021) observed that when leaders apply innovative strategies for sustainable development, the outcome is a resource that only the organisation can provide and cannot be substituted by others. By adopting various anticipatory measures, including setting carbon-neutrality targets, leaders can unlock RBV-aligned change that articulates a commitment to stakeholders in a way that strengthens corporate reputation and its standing in the market. Although participants pointed out that expectations were set during the meeting where quantitative outcomes and objective measures such as the weight of recycled waste were discussed, their attainment may lead to an approach where organisations pay lip service to sustainability (Westin, 2024). This contradiction reveals the need for leaders to transform existing performance indicators with a more comprehensive concept that is dramaturgical and affects long-term environmental and social change.

Theme 2: Collaboration and Partnership

Collaboration makes it clear that the sustainability of multi-tier supply chains cannot be pursued in solitude. Some of the areas that participants highlighted included supplier and stakeholder relations and management of a sustainable supply chain, which is crucial, bearing in mind the country's volatility in terms of environmental and economic index. It enables members to coordinate who share expenses, hence reducing individual costs and establishing pooled working capital for particular investments in sustainable technology, according to Participant 5 in their partnership with the Green Building Council. Empirical studies also support them, as the literature

exemplifies partnerships with local stakeholders as the source of new knowledge and resources that create opportunities for a co-evolution of sustainable innovations (Cilesiz & Greckhamer, 2022).

In addition, the cooperation allows for avoiding concentration on one supplier, controlling risks in supply chains, and responding to disruptions, which is critical for countries with limited resources, such as South Africa (Dou et al., 2018). Such affiliation is argued under RBV as valuable strategic assets that enable firms to develop buffers against hazards, a key to sustainable competitive superiority (Dubey et al., 2017). By integrating their sustainability strategies, companies adjust their sustainability objectives in tune with their suppliers, consolidating the supply and RBV's notion of the significance of rare and valuable resources to the firm (Gaur et al., 2020). However, some scholars pointed out that depending too much on collaborative networks work becomes rather bureaucratic, resulting in lesser innovations in the long run, thus, becoming a detriment to long-term sustainable development (Krieger & Zipperer, 2022). Additionally, supply chains are flexible; they evolve with other changes, bringing issues that overshadow the gains of integrated communication (Sarkis et al., 2019).

Theme 3: Ethical practices

Participants emphasised collaborative, ethical leadership to achieve sustainable supply chain management systems practices. As stated by Participant 1, ethical leadership means policy requirements for clear supply relations, including declarations of interest. This is because the literature suggests that ethical leadership influences an organisation's culture, so sustainable practices are anchored into the organisation's running (Grimm et al., 2018). Additionally, RBV cohesion entails ethical practices as valuable and rare and noted to build a firm's reputation and customer trust, which are resources that can deliver superior and sustainable competitive advantage (Howard-Grenville et al., 2021). In addition, ethical principles enable organisations to transcend simple compliance with the legal standards set. Participant 5 also observed that only

those suppliers with certified certification, such as timber certification, are contracted. It is proactive, thus supporting the view that ethics-based policies are valuable in preventing reputational threats while advancing sustainable standards in supply systems. Ikome et al. (2022) established that the ability to manage risk on ethical un sustainability is improved by a long-term steady perspective on ethics for firms, especially in areas such as South Africa where the environment of regulation is essential. Therefore, ethical leadership contributes to RBV by building up a brand image that is hard for rivals to imitate (Jabbour et al., 2019). Nevertheless, according to Participant 8, concentration on certified suppliers only slows and neglects sustainable non-certified players, which a lack of certification may limit due to lack of money. Additionally, Choi et al. (2020) indicated that an increased obsession with certification could lead to decreased decision-making agility, which causes costs and product and service adaptability to grow in rapidly changing market conditions.

Theme 4: Sustainability Training

This study identified training as contributing to attaining sustainable practices in supply chains. These participants' responses indicate that training is crucial for suppliers and internal crew to comprehend and use sustainable practices favourably. For example, Participant 3 highlighted a supplier development program where suppliers must obtain commercial papers and meet sustainable standards. This notion is supported by previous research on supply chain management, where capacity development is considered imperative in training suppliers and meeting the organisation's sustainable development objectives (Krieger & Zipperer, 2022). Training enables knowledge transfer by providing layouts that make suppliers embrace sustainable practices, essential to sustaining competitive advantage (Alharahsheh & Pius, 2020). Participant 5 also pointed out that it is more effective when training also focuses on customers. All these actions create market awareness and increase the perceived credibility of sustainable products, thereby supporting the RBV notion that firms are better off by developing and deploying specific, market-relevant resources. The organisation gains long-term market positioning and sustainment assuredly where and when customer power is aligned with environmental protection. Nevertheless, Participant 9 noted that a preoccupation with customer-oriented training can lead to a situation where the latter

devours resources that could otherwise be used to improve the firm's substantive functioning, negatively affecting sustainability efforts. Additionally, Grimm et al.(2018) mentioned that customers' appetite for sustainability can be symbolic; it is difficult to achieve customer engagement solely through market-oriented training programs.

Theoretical Implications

From the theoretical point of view, the results provide evidence of the ability of RBV in the context of responsible leadership and supply chain sustainability. This capability corresponds to RBV's principles, which help leaders establish sustainability as a firm's fundamental strategic asset by integrating it into different levels of supply chains. Those Organisations that incorporate the principles of responsible leadership by producing and training employees in collaboration, ethical actions, and follow-up build up the stock of their intangible assets, improving their market position and decreasing the adverse effects in the environment (Castillo et al., 2020; Sajjad et al., 2024). Based on the study shows that SSCM supports responsible leadership pursuing the goals of implementing environmental awareness and ethical behaviours in organisations' operations. Furthermore, RBV emphasises the correspondence between the firm resources and the activities of the organisation's outward appearance. As witnessed by the case of Participant 5, explaining how waste products are used to develop sustainable resource utilisation, it becomes clear that sustainability creates a value that the competitors cannot easily emulate, thereby making sustainability a strategic value. This study contributes to the literature by explaining how responsible leadership facilitates competitive advantage with sustainability-oriented partnerships.

This discussion reveals how sustainable leadership practices for RBV can impact a multi-tier supply chain. By promoting a positive organisational culture by demonstrating personal professionalism, encouraging teamwork, practising and enforcing the highest ethical standards, and providing opportunities for training, leaders generate value that is more difficult for competitors to replicate and contribute to attaining sustainable goals and objectives. The research adds to the knowledge of

sustainability in SSCM. It postulates that responsible leadership is pivotal in changing sustainability from an ethical supplement to an organisation into a strategic asset. Nevertheless, future research may investigate the concepts underlying these practices as ways of giving additional attention to routines and performance evaluation: exploring the effects of those intangible assets on the overall organisational performance and discussing how those intangible assets could change to address the uncertainty of the market.

In conclusion, responsible leadership is crucial in embedding sustainability across multi-tier supply chains. Leaders build an organisational culture focused on sustainability through inclusive decision-making, ethical practices, collaborations, and training. These practices confirm the applicability of RBV in SSCM and underscore that intangible resources foster a competitive advantage that aligns organisational goals with broader sustainability objectives (Cousins et al., 2019; Helfat et al., 2023). The results indicate that companies prioritising these elements are well-positioned to address modern supply chains' complex sustainability challenges.

6.2 Research Question Two: Can Responsible Leadership be a Driver of Competitive Advantage and Sustainability?

The five areas of responsible leadership as the strategic approach could enhance competitive advantage and support sustainability in multi-tier chains, especially for firms operating in countries in South Africa where social and environmental issues are urgent. In this discussion, these themes are analysed with the help of participant feedback and the RBV theoretical framework. RBV provides that a firm's resources and capabilities are crucial to achieving competitive advantage, mainly when linked with sustainability (Barney, 2018; Helfat et al., 2023). Therefore, the following section evaluates participant data and compares it to extant literature regarding responsible leadership, including its role in creating competitive advantage and supply chain sustainability. Figure 6 shows a summary of the themes for research question 2.

Figure 6: A summary of themes for research question two

Source: Own compilation

Theme 5: Core Strategy

Across various parts of this study, the participants are clear that responsible leadership, when used as a strategic business management approach, enhances the firm's competitive advantage besides enabling the sustainability of development. For instance, in the views of Participant 1, industries such as mining are observing high standards of practices on the sustainability of resources in line with the minimum adverse impacts to the people and the natural satellite. The view expressed by Participant 11 is similar to that of Jabbour et al. (2019), who post that responsible leadership embedded in the strategic DNA is the most significant catalyst for sustainable growth and sustainable profit. Moreover, in businesses that have social effects, such as mining, which has been seen to have a severe impact on the environment, responsible leadership stands as the beacon of the company's positive image, as opposed to organisations that focus on making without regard for the adverse effects they have on the community (Jia et al., 2019). Nevertheless, some scholars opine that responsible leadership remains insufficient in cascading sustainable effects throughout the company and when implemented in development-

sensitive industries such as mining, which continues to experience negative impacts despite refining leadership practices (Chand & Tarei, 2021).

Moreover, from the literature, firms adopting responsible leadership are better positioned to address risks dealing with resource scarcities and competing desirable solidities (Krieger & Zipperer, 2022). In support of this, Participant 2 also pointed to responsible procurement as a sustainable operation since sourcing from local suppliers empowers the region economically. This aligns with Muff et al. (2022), who established that tending to local supplier networks within the emerging market creates goodwill and thus improves market influence. An analysis of participant narratives and literature provides discretion for the RBV theory to support the testimony that sustainable, responsible leadership contributes to converting resource-based issues into opportunities that foster competitive advantage.

Participant 3 further augmented their understanding when asked about supplier development and the focus at an automotive company on ethically sound suppliers and relationship development. As pointed out by the participant, developing such relationships helps preserve ethics and minimise broken supply chains. Backing this, Munck & Tomiotto (2019) argue that firms with responsible supplier links are less vulnerable to external forces as RBV posits that specific resources, including an unprecedented supply chain with ethical sentiments, are valuable resources that can contribute to long-term competitive advantage. On the contrary, it is stated that focusing on ethical suppliers might sometimes be costly and limit supplies, sometimes hampering competitiveness (Agarwal & Bahl, 2020). Furthermore, DeBerge (2024) identifies that rigorous ethical standards may restrain the selection of suppliers, bringing about dependency hazards when operating in insecure markets.

Theme 6: Sustainable policies and branding

Stakeholders involved in the study stressed the importance of sustainable supply chain management, pointing out that it is crucial to integrate sustainable assessment schemes in operations and procurement activities and supply chain networks as they will help improve the effectiveness and profitability of a business. For example, Participant 9 provided an overview of specific sustainable procurement policies, explaining how these cut costs and increase effectiveness and reliability regarding materials usage. This goes in a similar direction to what Nijaki & Worrel (2012) noted: sustainable supply chains reduce operational risks by decreasing reliance on scarce resources and thus adhering to environmental laws, which are essential significant drivers in regions such as South Africa where laws are changing.

Participant 12 also added that while constructing environmental value, the organisational practice gives competition benefits such as brand consciousness and customer trust. This is supported by Oelze et al. (2018), who say that sustainability in supply chain practices helps build a firm's reputation, creating demand and loyal customers. Furthermore, Pervin & Mokhtar (2022) demonstrate that sustainability in SCs has emerged as a strategic driver in industries rather than as an appendage and is critical in resource-dependency industries. Consequently, the competitive advantage gained through sustainable supply chains is twofold: firms protect themselves from the risks of non-compliance costs and simultaneously enhance the corporate image of organisations as socially responsible entities.

Participant 8 supported these by positing that the company has enhanced its stakeholder relations by committing to sustainable programs, thus gaining customers and grabbing higher market share. These experiences align with the work of Salvato & Vassolo (2018), who suggested that sustainable strategies throughout the supply networks have benefits that spill over from position innovation to goodwill and permanent cost efficiencies. Moreover, the involvement of stakeholder trust for competition associated with RBV achieves tangible support in intangible assets with a

long life cycle, such as the reputation and customer loyalty of organisations exposed to environmentally sensitive markets. Nevertheless, the findings presented by Ekins & Zenghelis (2021) indicate that sustainable initiatives occasionally entail increased first-year expenses, eroding stakeholder confidence and profitability in industries with poor ROI. They also further alleged that while the firm may rely on intangibles such as reputation, it may only sometimes achieve a competitive advantage, especially in varied conditions.

Theme 7: Supplier relationship management

Another theme the participants echoed is the effects of responsible leadership on various supply chain levels. Participant 6 also believed that responsible leadership entails stewardship and oversight of supplier practices right from the second tier and above to ensure compliance with sustainable practices. This view is consistent with the participant's view that satisfaction with higher-tier suppliers' sustainability requirements increases accountability and lowers reputation risk, as supported by Sarkis et al. (2019). It is most applicable in the high KAM impact industries where stakeholder pressures extend beyond direct supply partners to cover the entire supply chain.

Another point made by Participant 5 was the company's rule that expects all suppliers to commit to sustainability goals, so as everyone moves up the supply chain, sustainability stays a priority. As stated by the participant, this is a positive approach to the company's supply chain robustness and competitiveness, given that every supply supplier's sustainability commitment contributes to the supply line's credibility. This view is supported in the literature, with Salvato & Vassolo (2018) believing that sustainability in multi-tier supply chains enhances competitive advantage because of a constant ethical foundation. Moreover, RBV contends that a firm's supply chain is one of the strategic assets if managed for sustainability and that supplier engagement at multi-tiers enhances competitive advantage.

The overall trend for the participants was to support using a dominant remnant strategy and view leadership as an essential element of sustainability. Some of the findings pointed to the problems and paradoxes associated with the coverage of sustainability across complex supply networks. For example, Participant 5 notes that first-tier suppliers are critiqued and controlled under sustainability requirements. At the same time, the company cannot do the same to second and third-tier suppliers, leading to different ethical concerns. This limitation aligns with other research by Salvato & Vassolo (2018) on apparent communication and the finding that firms have difficulty controlling lower-tier suppliers as the relationships are usually indirect. In response to this challenge, Nijaki & Worre (2012) agree that firms can still drive their compliance by insisting on high standards from tier-one suppliers, who, in turn, pass this message to their subordinates.

A final difficulty discussed by Participant 5 included the need for more clarity over local sustainability strategies with those of ISO requirements. Although acknowledging that standardisation creates a level of structure and avoids deviation from what is expected in the industry, the participant complained that such standards may not capture the specific socio-environmental characteristics of regions like South Africa. It aligns with Munck & Tomiotto (2019), who support this observation by proposing that although industry best practices entail precious measures, they require regional practices for a rich social and environmental experience. Therefore, adopting grounded solutions instead of fully standardised guidelines for responsible leadership across organisations would yield a better return on investment for responsible leadership within a multi-tier supply chain context.

Theoretical Implications

Interviews with participants also provide insights concerning the theoretical contributions of RBV for analyses of responsible leadership and competitive advantage. As a result, RBV allows sustainability to be viewed as a critical intangible resource that helps to consider the issue of responsible leadership. The RBV

framework presupposes firms can use resources such as leadership to create stock value. Some participants pointed out that responsible leadership through sustainable procurement, tracing, and compliance offers the concept of RBV, adding value to a firm's resource portfolio (Krieger & Zipperer, 2022). However, the participant insights also enlarge RBV's `boundaries of perception' in some ways by calling for an even more expansive understanding of the concept. For example, the discussion of the issue related to how Participant 5 emphasised the impact of second-tier suppliers indicates that responsible leadership is a form of networked capital that is a part of the firm network. This argument is based on Jia et al. (2019) research question for defining a firm's resources within the firm's boundaries and in terms of the collaborative capacities of supply networks. Hence, responsible leadership in multi-tier supply chains brings in additional factors of external resource orchestration as another driver of a resource-based view for sustainable competitive advantage.

Participants' opinions further validate the statement that responsible leadership is embedded into the centre of strategy, empowering the firms to respond to resource-based issues and drive opportunities in sustainability entirely within the RBV Research Question. Nevertheless, the challenges that are evidenced in the case of managing multi-tier suppliers reveal that walking the talk of responsible leadership is easier said than done throughout supply systems. These ideas expand RBV by arguing for networked resource management in which first-tier and higher tiers exert direct and indirect control over lower tiers to ensure business sustainability. In conclusion, this paper shows that the conceptualisation of sustainable development through responsible leadership can benefit corporations and supply chain management practices in competitive shifting environments when applied strategically in the supply chain.

6.3 Research Question Three: How can RL merged at the operational level drive sustainable strategy within an organisation?

This section discusses findings from the participants' interviews and relates them to the literature, particularly the RBV perspective. The RBV holds that resources within an organisation are valuable drivers of sustainable competitive advantage, including exclusive operational methods or sustainable practices (Jia et al., 2019; Hengst et al., 2020; Khan et al., 2023; Madhavaram et al., 2023). According to participants, the corporate understanding of the interconnection between operational plans, such as procurement, production, logistics, and human resources, with sustainability goals can help improve the organisation's robustness and create a sustainable competitive market edge. Figure 7 shows a summary of the themes for research question 3.

Figure 7: A summary of themes for research question three

Source: Own compilation

Theme 8: Operational tactics

There was a common concern about how operational tactics support overall organisational sustainability agendas. For instance, participant 1 identified supplier development as one of the central strategic business units that free up 3% of the profits supporting community projects." Our ideal suppliers do not remain small," Participant 1 said, emphasising that while focusing on local suppliers creates a better society with reduced unemployment, it also fosters long-term supplier loyalty. In support of this approach, Krieger and Zipperer (2022) acknowledge that the delivery of value simultaneously to business and society is a source of strength that will connect both the firm and the society. Furthermore, Participant 5 mentioned, "These are not the activities that are, 'Oh, that would be great if we can achieve that,' they are core strategic objectives." We strive to reduce carbon emissions by specific percentages by 2030 and 2050, which are hardwired into every tier of our business. This approach to setting clear long-term goals will support the view as advanced by Madhavaram et al. (2023), showing that well-defined environmental goals, especially in the supply chain, will help actualise gains in sustainable practice. Participant 7 emphasised Scope 3 emissions regarding cement and steel suppliers and may give the company a competitive advantage by well-anticipating future regulatory and market requirements by aligning with Khan et al. (2023).

Two respondents echoed sustainability in the operation aspect, with waste minimisation and maximising resource utilisation as key focus areas. One participant suggested that waste recycling and reuse should prevail in producing non-conforming boards and gypsum: “It saves costs and reduces landfill waste." This discovery echoes Khan et al. (2023), who posited that closed-loop systems, such as repurposing waste, are environmentally and economically sustainable due to their low reliance on raw materials.

In addition, Participant 10 stated, "This is another cost-effective approach, which also fits well within our conservation agenda despite the fact it involves using ash residue from boilers in our production process." This approach is consistent with RBV theory as the operation processes, such as waste reintegration, build on the resources based

on firm-specific competence and thus would constitute valuable, rare, inimitable, and organization-specific resources that strengthen the firm's immunity and competitive advantage. This is well supported by literature from Zaidi et al. (2019), who pointed out that the lack of waste in an organisation's supply chain effectively leads to the development of benchmarks within sustainable and profitable industries.

Theme 9: Innovation

The two themes that emerged prominently were innovations, with participants insistent on technology's role in driving sustainability goals. As part of ROMP Reduced Travel, one participant, Participant 1, noted that 'this particular system cuts on travel and minimises our carbon footprint." It is a no-brainer for making things more efficient and environmentally friendly." Integrating technology to reduce carbon footprints aligns with Heldt and Beske-Janssen (2023), who note that environmental management innovation is mandatory to mitigate organisational impacts and improve efficiency. Consequently, the ROMP system, in this case, demonstrates how internal resources and capabilities can be aligned to serve sustainability objectives effectively. Conversely, Participant 9 commented on transitioning to electric equipment: Transitioning to 100% electric transportation is part of our overall emission control approach. He says, 'It is an investment, though it does control a lot with our long-term environmental changes.'

This shift corresponds to Köhler et al. (2022), where the authors draw attention to the idea that sustainable innovation cannot solely relate to changes in focal products but to entire process transformations. Innovation thus attains an RBV characteristic, where it is a rare, valuable, inimitable, and non-substitutable resource through which firms can maintain organisational flexibility crucial for responding to the foundations of the business environment. Evaluating the results concerning the tendency towards using green technologies, the firms mentioned, including those represented by the study participants, can claim the role of responsible market leaders who embrace the idea of sustainability in all possible aspects.

Theme 10: Key Performance Indicators (KPIs)

The participants' focus time and again was on setting concrete, sustainability-focused metrics in the form of Key Performance Indicators (KPIs) that are used to observe and ensure compliance with environmental goals. Participant 5 described how the carbon neutrality target for 2050 is incorporated into management performance measures and is consistent with the remarks of Participant 4, who said, "Our CEO spearheads this program and ensures it trickles to every department in the organisation." KPIs make you responsible and let you know how far you have progressed." This emphasis on control over performance indicators corresponds to the RBV framework, in which such systematic indicators guarantee that sustainability-related competencies are widely acknowledged as strategic organisational assets and, thus, adequately controlled (Wiredu et al., 2024). Targets such as emission reduction, efficient use of resources, and supplier development enhance firms' attention to improving their sustainable business operations. By doing so, firms obtain a solid bureaucratic foundation to anchor their sustainability initiatives and make strategic advancements based on the ability of employees and departments to relate everyday tactics to organisational objectives (Muff et al., 2022).

The study revealed more evidence to show that sustainability impacts the decision-making process in organisations, specifically on supplier selection and management. For instance, this participant said, 'We limit our suppliers with high credit for environmental issues and legal compliance.' "In this industry, if a supplier does not provide the quality we require, we immediately seek a replacement supplier." Calls for a selective approach correlate with Jia et al. (2019), who opines that when performing sustainable supply chain management, the firm has to set high supplier standards because the supply chain should match the corporate and company values. The capability to switch to suppliers committed to sustainable processes makes the resource a valuable asset. It adds to the RBV premise that firm-specific resources are valuable where they are hard to imitate.

Furthermore, Participant 3 acknowledged that while environmental considerations are prioritised, business viability remains key: Environmental stewardship and good

business sense are essential. It is about balancing both." This view is supported by Munck and Tomiotto (2019), who also raise concerns about the centrality of eco-logical factors in future organisational development. This strategy of achieving sustainable development, on the one hand, and ensuring receptor operations, on the other, is compatible with the RBV paradigm, where firms accumulate valuable, rare, and ineradicable assets that fuel competitive advantage and robustness.

Three focus areas interfacing with external factors that impacted sustainability activities were highlighted; these included funding issues and regulatory concerns. Participant 2 continued, "The overarching idea of executing such measures is expensive, especially in similar industries. However, we make it feasible by engaging partnerships and government support." This consideration corresponds with Chand and Tarei (2021) prescription that financial barriers may hinder firms' environmental initiatives, especially in industries characterised by high resource utilisation. However, as stated by Participant 5, cooperation with organisations such as the Green Building Council assists in creating a basic framework that meets the requirements set by regulations. Thus, these cooperations can help firms manage funding issues and ensure further sustainable development. Participant 3 also noted that while the levels of enforcement may differ dramatically in countries such as South Africa, their organisation has adopted high levels of sustainability control. "Of course, they will eventually regulate, and that is why we are getting prepared at the moment," they said.

This finding accords with Munck and Tomiotto (2019) assertion that firms that expect tighter rules first apply early sustainability practices to develop internal capacity for dealing with increasing stringency. Participant 5 stated that sustainable controls can lead to high operating costs and reduce competitiveness in areas with low sustainability standards. According to Munck and Tomiotto (2019), early adoption can lead to tensions since early regulation may have required more organisations than planned, while the actual regulation is less demanding than expected since it was delayed.

Theoretical Implications

This research contributes to the RBV by identifying how sustainability activities occur at the firm's operations to provide a sustainable competitive advantage. According to Barney (2018), a quality resource that is valuable, rare, hard to imitate, and has no close substitutes can create a competitive advantage. As demonstrated by participants, these capabilities include waste reduction, sustainable innovation, and supplier alignment, all VRIN characteristics since they build up organisational resilience, lower cost, and regulatory compliance that rivals can imitate. By implementing sustainability into the business operational activities, the firms increase participants' competitive advantage. This finding supports Chand and Tarei's (2021) extension of RBV to the natural resource-based view (NRBV), which proposed that firms may mobilise resources to sustain a competitive advantage if the resources cause the least environmental harm. This may find the facts gathered from the participants, where operational integration of sustainability has been seen to co-generate economic and environmental advantage, consistent with RBV and NRBV theoretical premises.

Based on the study's results, the following theoretical implications can be put forward regarding the primary ways of organizational sustainability implementation at the operational level. First, companies should set measurable goals compatible with the overall sustainability strategies and goals and ensure that all the departments, including suppliers, are answerable (Munck & Tomiotto, 2019). Unlike awards on a one-off basis, feedback mechanisms and key performance indicators enable the firms to monitor the level of achievements, indicating any gaps that may need to be closed or areas to be strengthened to maintain consistency with strategic goals. This is the observation of Krieger and Zipperer (2022), who stated that performance measurement systems help implement sustainable practices in the supply chain. In addition, firms should look at new ways of working and designing their final products regarding resource usage to reduce their waste. The expansion of technologies to monitor sustainability KPIs in real-time, as well as tools and systems that liberate energy, can improve the operational strength of a business. Ultimately, it remains to establish cooperation with the regulatory authorities and existing and potential

sustainability bodies to promote firms' awareness of the requirements and expected rules of the game that can improve compliance and competitiveness.

This research indicates that aligning operating plans daily with sustainability goals and visions is critical. ESG commitments also support competitive advantages, as investors are concerned about ESG commitments and strengthening competitive positioning. The findings that participants link waste reduction programs with eco-innovation, measurement of KPIs, and sustainable supplier practices point towards the RBV deploying sustainability as a sustainable competitive advantage in firms' core operations. Issues related to funding and regulatory disparities provide certain angles that must be addressed innovatively in emerging markets (Krieger & Zipperer, 2022). However, the increased proactivity evidenced by the participants indicates that firms interested in directing resources toward sustainability can expect to overcome these considerations. Focusing on operational sustainability allows an organisation to adopt a VRIN-based approach and gain a competitive edge where market trends constantly change.

6.4 Conclusion

Hence, the manager's identification with sustainable behaviours enhances the culture of sustainability accountability and inclusiveness among the employees to gain zeal and direction toward achieving sustainability goals. This approach changes organisational culture, where there will be a collective responsibility for environmental goals. This links up with RBV by maintaining that resources are valuable and not substitutable. Therefore, in complex supply chains, sustainability is pursued through partnerships with local suppliers and other stakeholders. Discussants stressed the critical role of partnerships, especially in South Africa, where environmental and economic pressures are making the rounds. Collaboration improves organisational resilience, knowledge acquisition, capitalisation, and pooled investments in sustainable technology, which accredits RBV on the notion of competitive advantage through unique resources and capability. Promoting ethical management with anti-corruption policies and a sustainable supplier procurement system helps to negotiate better relationships so that they do not take actions that potentially harm McDonald's

reputation. Ethical practices also build up the brand, which falls under the RBV's definition of valuable intangible assets, improving the long-run competitive advantage.

Chapter 7: Conclusion and Recommendation

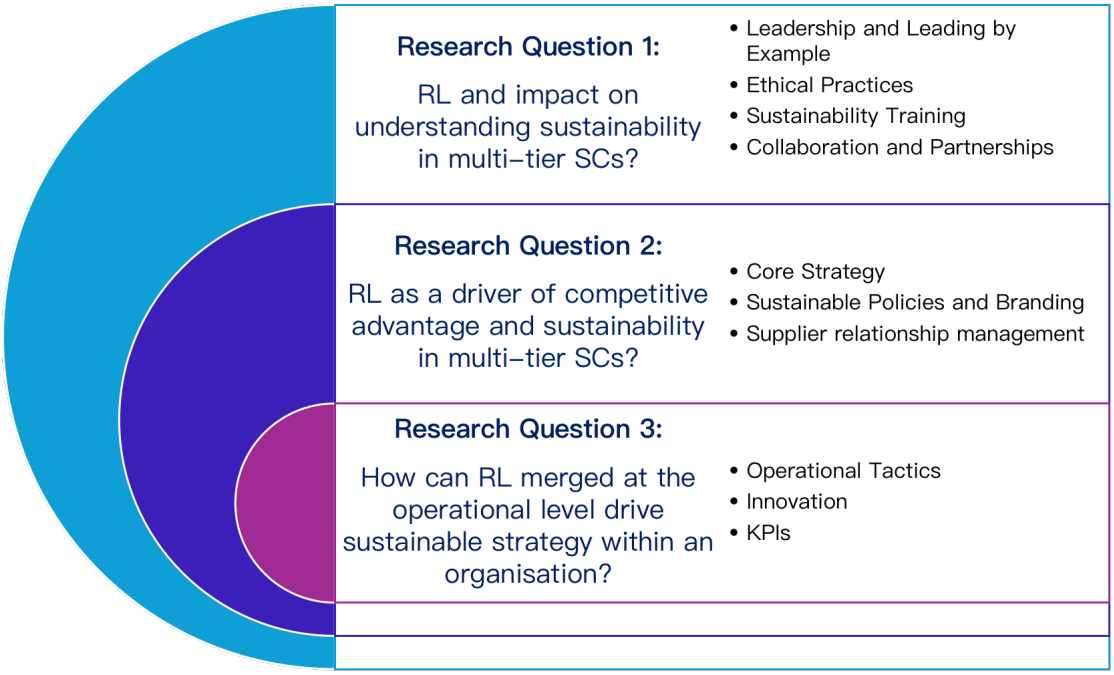
7.1 Summary of Findings

This research sought to establish the role of responsible leadership in determining sustainability in multi-tier supply chains to develop the roles and impacts of leadership in the aspects of sustainable practices. The objectives were to explain leadership behaviours that lead to environmental, social and economic sustainability and assess whether these leadership behaviours help the supply chain overcome challenges. Thus, analysing the multi-tier supply chains, the study was intended to uncover how responsible leadership influences consistent, sustainable practice across the supply chain layers, including primary suppliers and end customers. The interviews revealed several significant issues, such as leadership's importance in implementing sustainability initiatives, which was the central finding of the research. Employees reported leadership as the substantive factor, with leaders that promote ethical decisions leading sustainable practices at different levels. Communication between leaders and other stakeholders in the supply chain was also deemed crucial to enhancing the programmes' transparency and achieving various sustainability objectives.

Moreover, for corporate social responsibility, ethical issues were central; hence, leaders focused on fairness, accountability and social responsibility while dealing with subordinates. Training and skills were also identified as necessary in helping the employees and suppliers to undertake sustainable practices within their working environment knowledge. Regarding Core Strategy, it was found that mainstreaming

sustainability in an organisation's operation facilitated the realisation of its multi-tiered sustainable goals. Lastly, it was identified that both sustainable supply chains and multi-tier management demand flexible and adaptable models to encompass the numerous issues in the vast and dynamic supply systems regarding compliance and supplier management.

Figure 8: Summary of research findings for this study



Source: Own compilation

The study's conclusions expand the RBV theory by showing that responsible leadership as an intangible resource can create sustainable competitive advantages for firms. Under RBV, only those resources that are valuable, rare, inimitable, and non-substitutable lead to an advantage. Here, responsible leadership matched these criteria, providing an intended value that can promote supply chain robustness and improve the sustainability of supply chains. This insight means that sustainability can be made into a competitive advantage possessed by few firms, especially if leadership

folds responsible practices into the heart of the strategic plan. Further, the study extends the RBV by demonstrating that leadership and ethical initiatives are as significant as tangible and technological resources for developing an effective and responsive supply chain. In extending RBV, leadership is seen as a unique source of sustainable competitive advantage, especially in multinational supply chains characterised by multi-tiers and dependencies.

7.2 Theoretical Implication

This study builds upon the RBV by extending it to include knowledge-based RSORs, such as responsible leadership in sustainable multi-tier supply systems. While RBV has long been anchored on tangible assets and future research established, this current study reveals that ethical leadership and sustainability are two significant intangible assets firms can leverage to put up a solid competitive hedge. It situates sustainable leadership as a novel and profitable asset, enabling sustainability and operational robustness in multifaceted supply chain environments. Through this study, the connection between responsible leadership and strategic management re-establishes the premise that ethics and sustainability are not merely legal requirements or moral values but organisational strengths. Managers and executives who embrace sustainability ensure direction by pursuing the organisation's ideal values for long-term evidence from the strategic management literature. Therefore, sustainable practices as a significant aspect of responsible leadership become the source of this duration-inspired competitive advantage. These conclusions imply that present RL frameworks could require further refinement if they are to incorporate multi-level impact into the practice, which is important because contemporary supply networks are intricate. Accordingly, the study calls for multi-tier ethical decision-making frameworks pointing to the importance of contextually sensitive leadership solutions in multi-tier systems to enhance strength and duration.

7.3 Practical Implications

The findings of this research identify several leadership efforts to promote sustainability throughout MLTSCs. It suggests specific actions for leaders to promote ethical sourcing and create strong, honest supply chain relationships. Moreover, introducing sustainability training helps leaders and all employees know and implement the concept of sustainability efficiently. These ventures assist in instilling accountability encompassing the organisation to extend ethical and sustainable measures. SCM can implement strategies that would help enhance the sustainability of its supply chain networks. One of the best suggestions is to focus on communicating with the suppliers and setting up shared objectives for increased sustainability. Managers should ensure they develop working sustainability audits and assessments to monitor environmental and ethical sustainability tiers. Specific and quantifiable sustainability goals and supplier participation in these objectives motivate managers and suppliers to work on sustainability-related issues. The final practical strategy focuses on making resource-efficient supply chain practices, such as reducing waste and managing physical and information flows, economic-environmental aligned. The study enhances the achievement of the Ramsar Wetland Management COP12 principles and frameworks related to sustainable consumption and production, climate change, and migration & sustainable tourism. The concept of stewardship that this theory entails is still supportive of organisations' environmental responsibility and humane treatment of labour and is most closely related to the concept of sustainable development goals (SDGs). This research shows that responsible and ethical supply chain management not only fosters economic value but also contributes to the overall global sustainable goals and objectives by ensuring that the actions of an organisation are tied to the more significant societal and environmental gains.

7.4 Limitations of the Study

This study has some inherent geographical and industry constraints that may limit the application of findings. Conducted primarily at the regional or sector level, it might be less generalisable to global SCM as the practices, culture, and regulations significantly differ between regions. For instance, the management strategies towards

sustainability in European supply chains can be utterly different from those of North American or Asian supply chains, affecting how the above research results apply to other markets.

The data gathered for the study were mainly qualitative data from interviews; this means that the study may contain some biases, and the depth of generalisation was somewhat limited. Further, the number of participants in this study was comparatively low, limiting the generalisability of conclusions and key learning identified in multi-tier supply chains. Moreover, there was a lack of cross-sectional data, meaning that assessing changes in leadership practices and sustainability performances that transcend time provides fewer perspectives if examined in future studies. There is a further restriction on the number of participants in the study, with only 12 participants in total. In pursuing such research, one can get deep qualitative data, although the sample size is small. Therefore, there might be limited external validity. Past studies indicate greater pattern richness as the sample size increases (Vasileiou et al., 2018), so current results should be viewed with parsimony on generalisability.

Though the study is built on the Resource-Based View (RBV) framework to consider the relationship between responsible leadership and sustainability, this theoretical lens has drawbacks. RBV mainly focuses on internal resources as the primary source of competitive advantage, while external factors, such as stakeholder pressure and regulatory changes, are essential in sustainability. Furthermore, using RBV in highly integrated, multi-tier supply chains is problematic because such systems may not be amenable to a strictly resource-based analysis. The two main drawbacks of RBV are that it concentrates on internal resources without referencing external pressures like the stakeholders' influences and the change in regulations. It is inadequate when applied to multilevel systems like supply chains. Consequently, the interpretations based on RBV can refer to the essential external and relational factors that define sustainable supply chain practices to a lesser extent.

7.5 Recommendations for Future Research

For an enhanced appreciation of the role of responsible leadership in sustainable supply chains, later research can generalise to other industries and geographical locations. Fields such as technology, farming, or pharmaceuticals may provide valuable insight into sustainability issues and management where the sector-specific regulatory requirements and resource demands are distinct. Likewise, analysing various areas, especially those now considered emerging and with different levels of regulatory requirements, would contribute to forming a wider and more accurate understanding of how corporate responsibility and sustainable management practices react to the local environment (Mokhtar et al., 2019).

Quantitative methods will help support and enhance the conclusions made in the present work when approached with larger and more varied samples using regression and correlation analysis. The analysis quantifies and approximates the available data, resulting in authentic and genuine results. The above studies suggest that subsequent research could use quantitative research designs such as a statistical test or structural equation modelling to test specific effects of responsible leadership on identified sustainability outcomes. Such a quantitative approach may also enable scholars to focus on unique variables, including but not limited to the type of leadership, firm size, or supply chain configuration, to test their influence on sustainability practices as integrated by (Chen et al., 2021). Such studies would strengthen the existing findings and help generate the right models of sustainable leadership in multi-tier supply chains.

To mitigate the weaknesses related to the application of the RBV framework when examining responsible leadership and sustainability, it is fitting to adopt other theories concurrently. For instance, the stakeholder theory could be useful in filling the external pressures' oversight by RBV because its postulations cover stakeholder pressure and regulatory requirements. Stakeholder Theory is a perspective of capitalism inclining towards the interconnected relationships between a business and its customers,

suppliers, employees, investors, communities and other members of the organisation (Freeman et al., 2018). This two-part approach would provide a more integrated perspective of internal strengths and external requirements, especially in complex supply systems.

7.6 Conclusion

The research is a novel and valuable contribution to academic discourse and practice by expanding the knowledge of the relationship between RL and sustainability in MTS chains. Conceptually, it advances the RBV theory by showing how sustainability initiatives in intricate supply networks can be valuable organisational assets. The study also disseminated a number of prescriptive considerations for action, including plausible strategies like ethical sourcing and training across tiers, that supply chain leaders can deploy to enhance sustainability across different tiers.

The research thus establishes a clear perspective that responsible leadership is fundamental in accomplishing long-term supply chains at multi-tiers. Supervisors who encourage ethical standards and teamwork and have sustainability as a strategic value are prepared to cope with their business's social and environmental consequences. By enabling organisations to think of sustainability at every stage of a supply chain, leaders assist in creating dependable and ethical chains that conform to industry benchmarks regarding social and sustainability accountability. This supports the notion that having responsible leadership is not just the right thing to do but also important in the strategic management of an organisation in today’s highly competitive market.

As pointed out, responsible leadership is going to occupy an important place in the future as sustainability is becoming a major concern for organisations and customers. Promising further studies on its role in sustaining the supply chain across various industries and regions will be important towards building inclusive solutions that

leaders may apply. For the commercial world, inclusion of these sustainable practices will become crucial to adapt to the new world where corporate sustainability and responsibility will be a key driver for customer loyalty and compliance with the law. This research forms the first step and further research and implementation should be conducted in order to establish the role of responsible leadership in the achievement of sustainable supply chain around the globe.

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Appendix 5: Semi-Structured Interview Protocol

Company Overview:

Please describe your company and its core activities. (Probe: current market position,

benchmark)

1. Sustainability:

S1: What current sustainability practices and policies are in place in your organisation, and what do you understand about sustainability?

S2: How does your organisation prioritise sustainability initiatives and allocate resources? (Probe: what are current HR policies, are there workshops and training initiatives)

S3: What are the legal and regulatory requirements related to sustainability that your organisation must comply with? (Probe: current strategies at operational level)

S4: How does management integrate sustainability into its business strategy and decision-making processes? (Probe: role of innovation, partnership and collaboration)

S5: What are a sustainable supply chain's potential financial and reputational benefits? (Probe: competitiveness, market position and performance)

2. Leadership

L1: How would you describe the organisational culture and approach to leadership? (Probe: belief in the company culture leadership style does influence sustainability)

L2: What critical leadership competencies are required for an effective, sustainable supply chain network? (Probe: ethical leadership, supply chain performance)

L3: How do you maintain long-term stakeholder relations within the supply chain? (Probe: initiatives for positive impact?

3. Responsible Leadership and Competitive Advantage

RLCA1: What leadership behaviours and sustainability strategies are associated with developing a competitive advantage in South African multinationals? (Probe: sustainable practices)

RLCA2: How do responsible leadership and sustainability contribute to building a solid corporate reputation and brand image in South Africa? (Probe: integration between the different levels of an organisation)

RLCA3: What are the sustainability challenges and opportunities for responsible leaders in driving innovation and business growth in South African multinationals? (Probe: market performance)

4. Responsible Leadership and Supply Chain Sustainability

RLSCS1: How do responsible leaders influence the integration of sustainability principles into South African multinationals' core business strategy and operations?

RLSCS2: What role does responsible leadership play in fostering collaboration and partnership with suppliers to enhance supply chain sustainability?

RLSCS3: How do responsible leaders address ethical and social challenges within the multi-tier supply chains of South African multinationals?

RLSCS4: What are the specific mechanisms through which responsible leadership can contribute to the long-term sustainability of supply chains in South Africa?

5. Supplier Assessment and Management

SAM1: What criteria does your organisation use to assess suppliers' sustainability performance? (Probe: engagement with suppliers, monitoring processes)

SAM2: How does your organisation manage supplier risks related to sustainability? (Probe: collaboration with suppliers, maintenance and assessment of suppliers)

6. Sourcing and Procurement

SP1: What is your organisation's strategy for sourcing sustainable materials/services? (Probe: processes for assessing the environmental impact)

SP2: What steps are being taken to reduce waste and optimise resource utilisation? (Probe: ethical sourcing of raw materials, traceability of materials)

7. Other

O1: How does your organisation engage with consumers to promote sustainable consumption? (Probe: current product life cycles, waste reduction strategies)

O2: How does your organisation incorporate circular economy principles into product design and development? (Probe: current challenges and opportunities, measuring and communicating environmental benefits)

Appendix 6: Consistency Matrix

Main Research Question*: Resource-based views as an enabler for the sustainability of supply chain networks for multinationals in South Africa.*

Main Research Question	**RESEARCH QUESTIONS**	**LITERATURE REVIEW**	**DATA COLLECTION TOOL**	**ANALYSIS**
Resource-based views as an enabler for the sustainability of supply chain networks for multinationals in South Africa.	**Research Question 1:** Does Responsible Leadership Have an Impact on Understanding Sustainability in Multi-Tier Supply Chains?	Chand and Tarei (2021) used the resource-based view theory to improve the understanding of sustainability for multi-tier supply chain networks.	Semi-structured Interview protocol	Qual/Thematic
	Research Question 2: Can Responsible Leadership be a Driver of Competitive Advantage and Sustainability?	Salvato, C., & Vassolo, R. (2018). The sources of dynamism in dynamic capabilities.	Semi-structured Interview protocol	Qual/Thematic
	Research Question 3: How can	Amin et al. (2019) stated the outcomes of	Semi-structured	Qual/Thematic

	RL merged at the operational level drive sustainable strategy within an organisation?	transformational leadership in achieving sustainable supply chain performance is by applying sustainability capabilities.	Interview protocol	

Appendix 7: List of participants

Code	Participant	Industry	Core Activities	Title	Level of Experience
P1	1	Mining	Gold mining	Procurement Specialist	Over 10 years of experience
P2	2	Mining	Coal Mining	Commercial Superintendent	Over 10 years of experience
P3	3	Automotive	Components Manufacturer	Plant Manager	34 years of experience
P4	4	Automotive	Bus Manufacturer	Chief Operating Officer	20 years of experience
P5	5	Construction	Construction material	Supply Chain Director	15 years of experience
P6	6	Automotive	Vehicle OEM (Various models)	Outbound Logistics Manager	Over 15 years of experience
P7	7	Logistics	transportation, warehousing, and logistics	Commercial Manager	Over 15 years of experience
P8	8	Telecommunications	Towers	Supply Chain Director	20 years of experience
P9	9	Automotive: Vehicle OEM	Premium Vehicle OEM	GM: Logistics	20 years of experience
P10	10	Drink Industry	Drinks and brewing	Procurement Logistics Director	20 years of experience

P11	11	Automotive: Vehicle OEM	Premium Vehicle OEM	GM: BIW	20 years of experience
P12	12	Consulting	Pharmaceutical, and Manufacturing	Category Manager	12 years of experience

Appendix 8: Coding Overview

Top 20 Codes from all participants

Code	Count
○ Sustainability	168
○ Leadership	50
○ Innovation	46
○ Strategy	45
○ Supply chain	39
○ Collaboration	29
○ Policies	28
○ Operations	28
○ Ethics	28
○ Compliance	25
○ KPIs	24
○ Responsibility	23
○ Sustainability training	22
○ Communication	19
○ Corporate image	17
○ Supply chain management	15
○ Uncertainty	15
○ Environmental impact	14
○ Supply chain	13

Appendix 9: Informed Consent Form

Informed Consent Letter

Dear [Participant's Name],

I am a student at the University of Pretoria's Gordon Institute of Business Science (GIBS), completing my research in partial fulfilment of an MBA degree.

My research focuses on ***Responsible Leadership as an Enabler for Sustainability in Multinational Supply Chain Networks in South Africa***. As part of this study, I invite you to an interview that is expected to last approximately 45 minutes.

Your participation in this research is entirely voluntary, and you may choose to withdraw from the study at any time without any consequences. Rest assured, all data collected during this research will be treated with the highest confidentiality level, and any data reporting will be done without revealing your identity.

If you have any questions or concerns about the study, please get in touch with my supervisor or me. Our contact information is provided below.

Thank you for considering participation in this critical research.

Sincerely,

Researcher:

Name: Lebogang Matlala

Research Supervisor:

Name: