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From Linear to Circular: Overcoming Internal Organisational Obstacles to Reverse Logistics Adoption and Global Scaling in MNCs

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Abstract

This thesis examines the internal managerial barriers and enablers influencing the adoption, implementation, and scaling of efficient reverse logistics (RL) practices within multinational corporations (MNCs). Drawing on organisational change theory, stakeholder theory, and global integration-local responsiveness framework, the study aims to generate actionable insights that enhance both theoretical understanding and practical implementation of RL within the circular economy. Based on qualitative data from semi-structured interviews with senior executives at seven leading automotive MNCs across five countries, the findings reveal a paradigm shift: top management commitment, once a major internal barrier, is now institutionalised and expected. Instead, bottlenecks arise from the lack of coherent KPIs, gaps between strategic intent and operational decision-making, and tensions between global standardisation and local adaptation for RL initiatives. Consequently, key recommendations include the development of credible, comparable, and communicable KPIs, closing the gap between strategy-making and decision-making, decentralising implementation strategies to reflect local market conditions, and fostering cross-organisational learning. Nonetheless, challenges remain in aligning stakeholders, resisting one-size-fits-all approaches, and designing measurable, scalable KPIs. Thus, this thesis advances research on RL by providing frameworks, understanding and recommendations to its scalability and operational efficiency.

Keywords

Reverse Logistics, Circular Economy, Sustainable Supply Chain Management, Multinational Corporations, Global Value Chains, Internal Management Barriers and Drivers, Stakeholder Theory, Organisational Change Theory, Global Integration & Local Responsiveness Framework, Key Performance Indicators.

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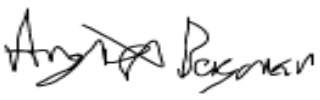

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List of Abbreviations:

RL: Reverse Logistics

SSCM: Sustainable Supply Chain Management

CE: Circular Economy

SCM: Supply Chain Management

MNC: Multinational Corporations

IB: International Business

GVC: Global Value Chain

USP: Unique Selling Proposition

ROI: Return on Investment

1. Introduction

1.1 Background

In response to stricter environmental regulations, enhanced consumer awareness and intensified competition, multinational companies (MNCs) are increasingly expected to improve their environmental and operational performance whilst acting as responsible global citizens (Sonar et al., 2022:3636). To remain competitive when addressing ecological challenges, many MNCs are turning to Sustainable Supply Chain Management (SSCM), a strategy that integrates economic efficiency with environmental responsibility (Moktadir et al., 2019:716).

A critical component in achieving these more sustainable supply chains is the transition away from the traditional "take-make-dispose" models of the linear economy that relies on continuous extraction and disposal of raw materials (Makarova et al., 2021:134). Instead, circular economy (CE) principles, emphasising the importance of closing material loops through waste reduction, reuse, recycling, and regeneration are increasingly recognised as essential to reshape global business practices by promoting resource efficiency and environmental consciousness (Kaviani et al., 2020:6; Sonar et al., 2022:3637).

Central to operationalising these circular principles is the adoption of reverse logistics (RL) (Saruchera & Asante-Darko, 2020:326). With the goal of recovering value and minimising waste, RL refers to the systematic process of managing the return, recycling, and disposal of products, materials and components once they have reached the end of their intended lifecycle (Govindan et al., 2015:603). For MNCs, especially those managing complex Global Value Chains (GVCs), RL can drive cost reductions, improve supply chain resilience, enhance customer satisfaction, and be a competitive differentiator across international markets (Shaharudin et al., 2023:5742).

However, successful RL integration is not merely a technical or logistical challenge, it is fundamentally a managerial one (Sonar et al., 2022:3636). Top management, defined here as the strategic process by which senior leaders steer an organisation through vision, resource allocation, and

coordinated decision-making, play an essential role for overcoming internal integration barriers, facilitating RL adoption and achieving circular GVCs.

However, although several studies and large corporations have shown that implemented and effective RL processes lower manufacturing costs, enhances GVC resilience, improves customer satisfaction, and provides competitive advantages across international markets, adoption among MNCs remains low (Shaharudin et al., 2023:5732). Particularly, research indicates that due to internal managerial barriers, specifically a lack of top management awareness, knowledge and commitment, many MNCs fail to recognise RL as a strategic priority (Ambekar et al., 2021:2881). Rather, top management often continues to prioritise traditional linear production models, whereby the MNCs are predominantly locked into the sequential phases of design, manufacture, use, and disposal (Shao et al., 2020:543).

As such, perceiving RL initiatives as primarily a compliance burden with limited value-added potential, rather than as strategic opportunities and sources of competitive advantages, top management becomes a barrier to both internal and GVC-level RL integration (González-Torre et al., 2020:892). By prioritising short-term profitability and cost optimisation instead, they risk becoming bottlenecks for development of RL and CE principles, as existing research indicates (Azadegan et al., 2021:1626).

A stance that in turn causes a ripple effect, further discouraging middle management and operational teams from actively pursuing RL initiatives (Sonar et al., 2022:3637-3642). As a result, RL initiatives are often deprioritized internally, while collaboration and coordination across GVCs around these processes remain challenging and inefficient. These challenges are particularly pronounced for MNCs seeking to integrate, scale and diffuse RL into their GVCa and global operations effectively whilst maintaining compliance with region-specific environmental regulations. Collectively, these barriers hinder MNCs from developing truly closed-loop GVCs, fulfilling their environmental and social responsibilities, and realising the full economic potential of circular and reverse flows (Dutta et al., 2023: 3).

Ultimately, whilst some MNCs have successfully embedded RL to create efficient, sustainable GVCs, the majority still face significant hurdles, primarily internal, limiting their ability to scale RL and fulfill both environmental, social and business objectives (Ambekar et al., 2021).

1.2 Problem Formulation and Research Gap

Despite the growing body of literature outlining the environmental and economic benefits of RL, many MNCs remain unaware of, or fail to utilise the opportunities of RL effectively (Sonar et al., 2022:3637). In particular, whilst existing research primarily has focused on external barriers, such as regulatory frameworks, market dynamics and technological infrastructure, much less focus has been on how internal managerial barriers inhibit RL adoption in MNCs (Shaharudin et al., 2023:5731). Given the diverse operational landscapes of MNCs, where different regional markets may face unique challenges, understanding how internal management factors influence RL integration, scaling and diffusion across subsidiaries operating in multiple countries, referred to in this study as cross-border contexts, is critical. This includes examining how MNCs central RL and CE strategies are internally interpreted, aligned, and implemented across distinct national and cultural settings within a GVC (Sonar et al., 2022:3642).

As the internal managerial dynamics critically shape whether, how, and to what extent RL is prioritised, implemented and scaled within GVCs, the current lack of clarity and understanding becomes particularly problematic within international business (IB) (Govindan & Bouzon, 2018:32). Without a clear understanding of what compels RL adoption across different national contexts, efforts to scale RL globally risk remaining fragmented, reactive, and inconsistent, as managers responsible for strategic decision-making face diverse regulatory systems, cultures, market expectations, and environmental pressures (Prajpati et al., 2021:199). Consequently, a major step in gaining the competitive advantages associated with RL is identifying, understanding and facilitating the motivational factors, referred to as drivers, that catalyse efficiency and success (Govindan & Bouzon, 2018:32).

However, these underlying drivers for successful integration and process efficiency remain notably underexplored, particularly within the context of MNCs (Chileshe et al., 2016:135; Sonar et al., 2022:3642). A gap that is both theoretically and practically significant, especially within the context of IB (de Campos et al., 2021:14166). Theoretically, it limits understanding of how firm-level decision-making dynamics influence RL integration, implementation and outcomes across global operations. Practically, it inhibits MNCs ability to identify internal enablers for scaling RL and CE initiatives, despite intensifying pressures from regulators, consumers, and investors to improve sustainability and circulatory across GVCs (Sonar et al., 2022:3637-3642).

For MNCs operating globally, this presents both a risk and an opportunity: identifying these drivers could offer a strategic edge in future-proofing supply chains and aligning with ESG expectations, whilst failing to do so may result in missed opportunities and falling behind competitors (Kaviani, 2020:13). Additionally, since current RL solutions are often problem-specific and lack universal benchmarks (Alkahtani et al., 2021:15), there is an urgent need for an integrated framework that identifies and prioritises internal drivers to facilitate RL implementation within MNCs (Prajapati et al., 2021:199).

As such identifying, understanding and facilitating these drivers that catalyse efficiency and success is a critical step for MNCs aiming to gain the competitive advantages of RL. In addition, given the evident theoretical and practical knowledge gaps, particularly in the context of globally dispersed GVC, addressing these is imperative (Govindan & Bouzon, 2018:324). Thus, exploring these drivers and developing an integrated framework not only is essential for advancing academic understanding of RL adoption within complex, global organisational structures (Sonar et al., 2022:3642). It is equally critical for equipping MNCs with the knowledge and internal capabilities required to effectively scale RL practices across global markets, thereby transforming sustainability from a regulatory and societal obligation into a source of long-term strategic advantage.

1.3 Purpose and Research Questions

Given the systemic interdependencies of RL adoption, addressing high-impact internal managerial barriers is a critical starting point for enabling broader implementation throughout the MNC (Prajapati et al., 2021:199). Thus, this study aims not only to analyse the internal managerial barriers that hinder RL adoption, scalability and internal diffusion in MNCs, but also seek to explore key internal enablers that can drive successful implementation within GVCs. A gap that is both theoretically and practically significant, especially within the context of IB (de Campos et al., 2021:14166).

Particularly, through developing and applying an integrated framework, and by interviewing top-level executives and managers from seven leading vehicle industry MNCs headquartered in five different countries, it will contribute both theoretically, by expanding the current understanding of firm-level decision-making dynamics in global sustainability transition, and practically, by equipping MNCs with insights to better embed RL into their operational and strategic agendas. Consequently, the research will focus on the following questions:

RQ1: What internal managerial drivers enable the successful adoption, scaling, and integration of reverse logistics within MNCs' global value chains?

RQ2: How do MNCs reconcile global strategic intent with local operational realities when scaling reverse logistics initiatives?

1.4 Delimitations

Given the aim and scope of this thesis, it does not intend to directly address external factors such as governmental regulations, broader market conditions and other macro-level factors, nor does it focus on SMEs, non-industrial or service-based firms. By narrowing the lens to internal dynamics, the study provides targeted insights into the specific managerial challenges faced by large MNCs.

Moreover, given the study's aim to identify the key barriers and enablers for successful RL implementation, and its impact on strategic decision-making, scalability and internal diffusion related to RL in MNCs global operations, the primary data collection is delimited to fifteen senior managers and top-level executives. Individuals that were selected based on their extensive industry experience, in-depth organisational knowledge, and overarching perspective of their organisation and industry, enabling them to provide rich insights that are directly applicable to the organisational setting of focus for this study. Nonetheless, practical considerations such as accessibility and availability also influenced the final sample composition

Geographically, whilst the study focuses on MNCs global operations, the empirical data is primarily derived from managers located in five main countries: Sweden, Germany, UK, US and Japan. Consequently, although offering valuable insight into RL integration within established economies, the findings may not fully reflect region-specific barriers, challenges and dynamics outside this context, particularly in developing or less industrialised markets.

Lastly, given its scope and chosen qualitative research design, the study aims to generate in-depth, analytically transferable insights that can enhance understanding of similar organisational contexts. As such, the objective is not to produce statistical generalisations. Consequently, quantitative assessments of RL performance, financial outcomes, and market-level impacts fall outside the scope of this research.

1.5 Outline of the Thesis

In the upcoming chapters, a critical evaluation and discussion of relevant literature will set the foundation for the study. Thereafter, by utilising the three main theories of this study, Stakeholder Theory, Organisational Change Theory, and Global Integration versus Local Responsiveness, will an integrated framework be presented. A framework that aims to identify the key barriers and enablers that either hinder or drive successful RL implementation, scalability and internal diffusion in MNCs global operations.

After the utilised research methodology has been outlined, evaluated, results of the empirical research involving interviews with top-level executives and managers from seven leading vehicle industry MNCs headquartered in five different countries, will be presented. Lastly, the findings from said interviews will be analysed, discussed and summarised in a conclusion that offers actionable practical, theoretical and future research recommendations.

2. Literature Review

2.1 Reverse Logistics

2.1.1 Definition

Integral to the effective implementation of sustainable supply chain strategies and CE principles is RL (Sonar et al., 2022:3637). With the goal of maximising recovered value and minimising waste, RL systematically manages the return, recycling, and disposal of products, materials and components once they have reached the end of their intended lifecycle (Govindan et al., 2015:603). In other words, RL refers to the segment of the supply chain responsible for managing goods that move in the opposite direction of traditional distribution flows, hence the name.

Through this efficient management of valuable components, spare parts and materials, RL enables the continuous reuse, refurbishment and remanufacturing of resources, playing a critical role for MNCs in achieving circularity (Sonar et al., 2022:3637). Consequently, several studies have stated RL as "an inseparable part of the circular economy, and its success is directly related with the realisation of the circular economy" (Alkahtani et al., 2021:15).

2.1.2 Benefits of RL in the Automotive Sector

First of all, through RL, can components and raw materials of high value be remanufactured, refurbished, and directly reintegrated into secondary markets (Sasikumar & Kannan, 2008:154; Chan et al., 2012:1327). Whereby adequately implemented and efficient RL initiatives can decrease manufacturing costs, improve revenue growth and enhance supply chain resilience across multiple international markets (Makarova et al., 2021:133-134).

Besides economic benefits, effective RL processes also mitigates environmental and public health risks (Sonar et al., 2022:3637). By facilitating recovery of valuable materials, such as metals, plastics, and rubber, and ensuring their reintegration into the supply chain, RL maximise material efficiency

through minimising virgin material consumption and dependence, lowering energy usage, and reducing the need for additional mining or material extraction (Chan et al., 2012:1320). This is unlike the traditional "take-make-dispose" model of the linear economy, which relies on continuous extraction and disposal of raw materials. Moreover, the recycling of ferrous and non-ferrous metals, plastics, and rare earth elements ensures the safe disposal of hazardous materials, including battery acids, refrigerants, and lubricants. In turn reducing landfill waste and helping to curb pollution, emissions and environmental degradation (Sasikumar & Kannan, 2008:156-161).

Consequently, RL is increasingly recognised as a strategic driver of global competitiveness in the automotive sector, particularly as MNCs seek to align their supply chains with evolving international sustainability regulations and market expectations (Sonar et al., 2022:3637). Thus, RL not only has become a compliance-driven necessity to achieve broader sustainability goals (Kaviani et al., 2020:2), but also a key enabler of GVC efficiency, long-term market positioning and a vital competitive differentiator for automotive MNCs in global markets (Shaharudin et al., 2023:5741-5742). Conclusively, by effectively integrating RL processes throughout the whole GVC, MNCs establish a more resource-efficient, profitable and scalable business model that aligns with regional sustainability goals (Shaharudin et al., 2023:5741-5742).

2.1.3 Current State of RL in the Automotive Sector

Given the growing demands for a CE and the need to achieve global sustainability goals in the automotive industry, both externally and internally for MNCs, the interest in and importance of RL has escalated in recent years (Alkahtani et al., 2021:2-4).

However, although RL offers substantial financial, operational, and strategic benefits for MNCs operating in multiple international markets, the integration of RL within the automotive industry varies considerably (Ambekar et al., 2021:2881). Although several studies and large corporations have shown that implemented and effective RL lower manufacturing costs, enhances customer satisfaction and provides competitive advantages, many MNCs are unaware of, or fail to utilise the opportunities of RL (Makarova et al., 2021:133; Kaviani et al., 2020:2). Besides great ambiguity over how to

execute it, top management often considers the barriers, ranging from low initial ROI, low commitment and supply chain inefficiencies, to outweigh the advantages RL could provide. As such, top management often continues to prioritise traditional linear production models, whereby the MNCs are predominantly locked into the sequential phases of design, manufacture, use, and disposal (Chan et al., 2012:331; Shao et al., 2020:543).

Consequently, the realisation of truly closed-loop supply chains remains far from achieved, and overall circularity levels continue to be low (Glöser-Chahoud et al., 2021:7). As emphasised by Kaviani et al. (2020:13), this challenge is even more pronounced in developing countries, where the implementation of RL in production, particularly in high-pollution industries like the automobile one, although being of high significance, remains significance hindered, inhibiting MNCs from fulfilling their environmental responsibilities (Kaviani et al., 2020:13). A challenge that poses a significant dilemma for MNCs aiming to integrate, scale and diffuse RL into their GVCa and global operations effectively whilst maintaining compliance with region-specific environmental regulations.

Ultimately, while some MNCs have successfully leveraged RL to create cost-efficient, sustainable, and competitive supply chains across international markets, implementation and scaling efforts remain inconsistent, frequently overlooked, and often ineffective or suboptimal for the majority (Dutta et al., 2021:2). Particularly influential are management-related barriers, that are shown to act as high-driving-power factors, influencing other adoption hinders, and, leading to inefficiencies, unoptimised processes and missed sustainability opportunities. On the contrary, several studies indicate that MNCs with knowledgeable, committed and engaged top management that prioritise and invest in formalised governance mechanisms, employee training and structured accountability frameworks for RL, are the highest-performing adopters and most efficient scalers (Campos et al., 2021:14166).

As such, identifying, understanding and analysing key internal managerial barriers and enablers to RL adoption is critical for MNCs seeking to transition from linear to circular supply chain models. Without awareness and knowledge of these factors, efforts to scale RL across diverse markets risk

being fragmented, misaligned with strategic goals, and ultimately ineffective in meeting both regulatory, sustainability and profitability expectations.

2.2 Internal Management Barriers

2.2.1 Lack of Top Management Awareness, Knowledge and Strategic Vision

As highlighted by both Sonar et al. (2022:3685), Ambekar et al. (2021:2878), Dutta et al. (2023:3) and Kaviani et al. (2020:13), are the lack of awareness regarding RL processes and its economic and environmental benefits among top management a major barrier with significant driving power that prevents many MNCs from adopting it effectively (Sonar et al., 2022:3685).

As a result of decision-makers' limited knowledge base, many organisations remain unaware of RL's full potential to reduce waste, optimise resources, and generate cost savings through material recovery (Kaviani et al., 2020:2). Thus, they fail to identify the economic, social and environmental benefits effective implementation brings, instead fueling uncertainty about RL financial returns, timeframes and operational risks. Whereby it´s perceived as a compliance burden and cost centre, rather than a business opportunity and source of competitive advantages, in turn intensifying other challenges, making it a high-impact barrier (Ambeka et al., 2021:2878).

Several studies show that a particular reason being that many MNCs today, facing intensified competitive pressures globally, instead prioritise traditional, well-established operational models (Mallick et al., 2023:9). Whereby new, innovative approaches, such as RL, are often discouraged as a result of reluctance among top management to deviate from established industry practices and operational processes as they perceive incentives and motivation too low to justify it.

Particularly in industries with strict quality expectations, intense price pressures and highly efficient production processes, such as construction and automotive ones, a hesitance to embrace RL processes and modify their business models continues to remain pronounced due to concerns about market perception, operational disruptions, and increased costs (González-Torre et al., 2020:891). Ultimately,

as Ambekar et al., (2021:2893 conclude, the extent to which RL is adopted depends significantly on how management perceives its economic advantages and associated risks. Consequently, sustainability-driven changes, such as RL investments, remain unprioritised, reinforcing a cycle of inaction that hinders long-term sustainability integration, as well as realisation of significant cost savings and environmental benefits (Ambekar et al., 2021:2893-2895).

However, being identified by several studies as the macro level barrier with the maximum driving power and greatest casual effect (Sonar et al., 2022:3685), this lack of training, awareness and knowledge in turn stimulate and exacerbates all other barriers, directly affecting a firms' efforts towards the implementation of an RL system (Ambekar et al., 2021:2889-2893). Besides influencing RL implementation strategies and hindering proactive investments in RL training, technology and infrastructure, this lack also discourages collaboration with external stakeholders, further amplifying supply chain coordination challenges (Ambekar et al., 2021:2878).

As a result, insufficient training programs, unaligned business models and lack of investment in RL R&D have all been highlighted as key challenges for effective, long-term adoption closed-loop supply chains, product life cycle extensions, and CE models (Sonar et al., 2022:3638). Consequently, as underscored by Dutta et al. (2023:3), without targeted managerial educational initiatives, MNCs will continue to view RL as a high-risk, low-reward endeavour, further delaying adoption and innovation. Particularly, as several studies indicate that the presence of knowledgeable RL experts within management correlates positively with the overall success of RL adoption and financial performance (Abdulrahman et al., 2014:469). A notion underscoring high levels of managerial awareness and knowledge is not merely beneficial, it is essential for effective implementation, scaling and internal diffusion. Particularly for MNCs operating across diverse regulatory and cultural environments as top managerial awareness and knowledge is essential for fostering a strong sustainability culture, facilitating the integration of reverse flows into complex supply chains and aligning with long-term sustainability goals, in turn better leveraging RL's environmental and economic advantages (Can Saglam et al., 2023:1167).

2.2.2 Lack of Top Management Commitment

Similarly to lack of awareness and knowledge, lack of top management commitment is one of the most influential barriers with the highest causal effect for RL adoption (Sonar et al., 2022:3637-3642). Without executive leadership and continuous engagement, RL efforts remain fragmented, underfunded, or deprioritised in favour of forward logistics (Moktadir et al., 2020:720). Consequently, due to the lack of commitment, resource allocation remains limited, policy enforcement weak and training programs (Dutta et al., 2023:3).

Moreover, due to their focus on short-term profitability and cost optimisation rather than long-term financial investments and sustainability gains, many executives fail to recognise RL as a strategic priority (González-Torre et al., 2020:892). Particularly, with RL lacking immediate and visible returns, managers struggle to justify these RL expenditures internally within MNCs, leading decision-makers to prioritise other projects with faster financial paybacks (González-Torre et al., 2020:890). Especially, within price sensitive industries, such as the automotive one, or developing economies, where cost constraints often are more severe, the limited initial return on investments (ROI) is detrimental for RL adoption. As such, perceiving RL practices as a burden with limited value added opportunities, top management becomes inhibitors to RL implementation. Reluctance, that in turn causes a ripple effect, further discouraging middle management and operational teams from actively pursuing RL initiatives (Sonar et al., 2022:3637-3642).

Additionally, several studies indicate that MNCs with strong top-management advocacy for RL experience higher compliance rates, stronger stakeholder engagement and improved supply chain efficiency (Lamba et al., 201:384). Consequently, as per the literature (Lamba et al., 2019:384; Moktadir et al., 2020:720; Sonar et al., 2022:3637-3642), unwillingness and lack of interest of top management are found to be the single most prominent barriers for adoption and effective implementation of RL processes.

2.2.3 Managerial Challenges in Bridging Global RL Vision and Local Execution

Beyond their direct impact, by exacerbating supply chain inefficiencies, management barriers further complicate implementation, coordination, and scaling of RL initiatives across GVCs, whereby identifying and understanding said barriers becomes essential to drive effective RL adoption in MNCs (Sonar et al., 2022:3635; Wu et al., 2022:2).

First of all, the presence of split incentives between supply chain actors also creates governance challenges for RL adoption (Ambekar et al., 2021:2894). As Glöser-Chahoud et al. (2021:6) emphasise, several studies highlight that GVC actors often operate with conflicting objectives. Particularly, suppliers and customers prioritise short-term cost cutting and maximising profitability through linear supply chains conflict with the long-term value creation and closed-loop supply chains emphasised by others (Glöser-Chahoud et al., 2021:6). A main reason being that supply chain stakeholders today remain unaware of or struggling to understand best practices, economic incentives and environmental benefits of RL (Dutta et al., 2023:4). Without clear, shared incentives for all participants and clear collaboration mechanisms, commitment weakens, and RL adoption remains sluggish, with a lack of committed support emerging as a critical barrier, as highlighted by Sonar et al. (2022:3636).

Moreover, the lack of uniform benchmarks and structured evaluation criteria further complicates performance assessment, limiting companies' ability to drive improvements and align RL initiatives with strategic sustainability goals (Alkahtani et al., 2021:11). Given the necessity of managers within MNCs to continuously monitor supplier compliance, track operational efficiency and justify investments internally, the absence of transparent, standardised and easily communicable long-term economic KPIs—such as lifecycle cost savings, break-even return time, or cumulative value recovery rate, significantly hinders the ability to valuate, justify and scale RL initiatives across global operations (Sonar et al., 2022:3635-3638). Especially, given the high initial investment costs required to set up RL networks, the low initial ROI, and that many actors lack prior experience, and processes lacking large-scale adoptions and economies of scale. As such, without clear performance measuring

and monitoring systems in place, justifying investments, identifying inefficiencies, addressing bottlenecks, and avoiding greenwashing accusations becomes very challenging for MNCs. Particularly in very globalised and supply chains, such as those prevalent in manufacturing and automobile industries as emphasised by Alkahtani et al. (2021:11-15).

Additionally, considering that RL strategies are often tailored to specific problems without a standardised evaluation and implementations, objectively comparing solutions and determining best practices becomes even more difficult given absence of established benchmarks (Alkahtani et al., 2021:15). Whereby monitoring performance and managing well-informed, objective, and effective decision-making becomes almost impossible for MNC, making the lack of performance measures, indicators and benchmarks a major hinder for RL adoption as underscored by several studies (Sonar et al., 2022:3635-3638).

Lastly, limited consumer awareness and knowledge about RL practices, channels and benefits remain a significant obstacle for RL adoption (Alkahtani, 2021:3). Several studies indicate behavioural gaps between consumer intention and action often hinder RL implementation (Mallick et al., 2022:10). Whilst consumers may express willingness to choose RL and/or circularity products, reality shows a significant scepticism and lack of follow through. Whereby many MNCs hesitate to integrate recovered materials due to stakeholders concerns over product consistency, quality, price and longevity.

2.2.4 Summarising the Barriers: What Matters Most for MNCs in RL Implementation

While macro-level factors such as government policies, market conditions and financial constraints play a role, several studies indicate that top management awareness, commitment and engagement are the most influential internal determinants of RL success (Agrawal et al., 2016:17; Abdulrahman et al., 2014:469; Can Saglam et al., 2023:1167). Especially, as management-related factors exhibit the highest driving power, thereby influencing and reinforcing other challenges, such as financial constraints and supply chain inefficiencies, as illustrated in the summarising table available in Appendix 1 (Sonar et al., 2022:3642).

So even when external enablers such as government incentives or regulatory changes are introduced, the degree to which RL is successfully implemented depends on internal top managerial awareness, knowledge and commitment (Ambekar, 2022:2893; Agrawal et al., 2016:20).

Consequently, several studies show that the highest-performing RL adopters are those with knowledgeable, committed and engaged top management that prioritise and invest in formalised governance mechanisms, employee training and RL awareness, cross-functional knowledge sharing, and structured accountability frameworks (Aitken & Harrison, 2013:759; de Campos et al., 2021:14166). Those are the MNCs that are better positioned to overcome the barriers and integrate RL into core business strategies, foster employee engagement in environmental initiatives , ensuring long-term sustainability and competitive advantage (Prakash & Barua, 2016:1118; Can Saglam et al., 2023:1167). Not only underscoring why ultimately, management, organisational, and supply chain barriers, are not only the most significant obstacles to RL adoption but also the primary drivers of all other barriers. But also why MNCs that want to ensure effective scaling of RL operations across global markets, compliance and long-term profitability need to prioritise top management commitment, RL awareness, and integrated supply chain coordination, to avoid falling behind competitors and losing out on competitive advantages (Prakash & Barua, 2016:1118; Can Saglam et al., 2023:1167).

2.3 Theory

2.3.1 Stakeholder Theory

A relevant model within the broad stakeholder theory ideology is the stakeholder salience model, which deals with stakeholder prioritisation (Mitchell et al., 2017:9). The stakeholder salience model is explained to positively relate to the aggregated number of traits with stakeholders, namely power, legitimacy, and urgency (Mitchell et al., 2017:10). These specific traits that are present with the stakeholders, Mitchell et al. (2017:14) describes them to help managers to utilise competence and conviction in prioritising stakeholders appropriately.

As shown in Figure 1, Kujala et al. (2019:129) depict a model with 8 types of stakeholders conforming to three major circles that are based on the traits of the stakeholders, power, legitimacy, and urgency. The main types of stakeholders, however, in this thesis will mainly be definitive, dominant, and discretionary stakeholders.

As such, stakeholder salience will be high when all three types of traits of a stakeholder are fulfilled, and they are therefore categorised as definitive stakeholders. Managers in organisations feel compelled to give attention and focus to such definitive stakeholders when they exercise power with legitimacy together with urgent claims. Here, organisations need to acknowledge the importance of such stakeholders and not disregard or misperceive the high level of salience. Moreover, a dominant stakeholder is both in the position of power and legitimacy, these commonly form a dominant coalition with the firm since they are possessing power with legitimacy and are expecting to receive managers attention to a great extent. On the other hand, a discretionary stakeholder only has legitimacy, meaning they have no power nor any urgent claims, which leads to managers feeling no pressure to engage in relationships with this type of stakeholder (Mitchell et al., 1997:874-878).

To identify proper stakeholders for the organisation, they will see who has some form of power, if they have legitimacy in their business, values, and beliefs, and if the stakeholder has claims that are critical and urgent (Mitchell et al., 2017:7). Wood et al. (2021:3) demonstrate the importance of identifying the right stakeholders by underscoring the risk of getting blinded by the reality by risking wasting resources on identified potential stakeholders that have legitimacy or power, but little claim, or those that have a claim but neither power nor legitimacy.

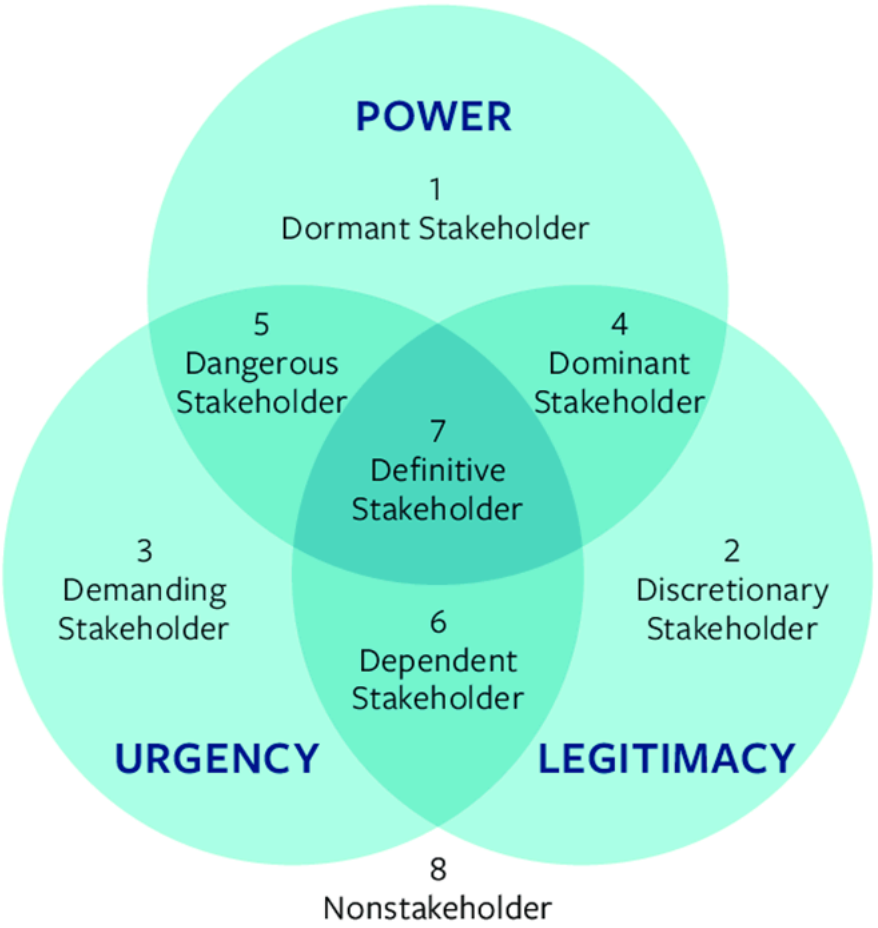

Figure 1: *The Stakeholder Salience Model (Kujala et al., 2019:129).*

As a result, the stakeholder salience model offers a comprehensive view and understanding of how MNCs navigate business operations in attempting to attain successful and efficient sustainability and RL initiatives in relation to different types of stakeholders. Its relevance to this thesis lies in MNCs' desire for effective RL implementations across the entire value chain, involving the influence and existence of different types of external stakeholders according to the salience model.

2.3.2 Organisational Change Theory

As the pace of organisational change continues to accelerate, the ability to manage it effectively becomes increasingly critical (Khaw et al., 2023:19142). In this context, Lewin's three-step model offers a foundational framework for understanding and guiding change processes (Lewin, 1947:35).

Its structured approach—unfreezing, moving, and refreezing—remains highly relevant for navigating today's dynamic organisational environments (Hussain et al., 2018:123). By illustrating organisational change through three distinct phases—unfreezing the current state, transitioning to a new state, and stabilising the new organisational reality—Lewin's model emphasises the importance of keeping employees informed, engaged and committed throughout the change process by management.

Lewin's change model outlines three key stages of organisational transformation: unfreezing, changing, and refreezing (Lewin, 1947:35). The unfreezing phase aims to disrupt rigid systems, processes and mindsets, enabling organisations to move away from established routines. The change phase emphasises employee involvement, transparent leadership and continuous communication to support effective implementation, build trust and create employee commitment. Finally, the refreezing phase focuses on stabilising the organisation in its new state, ensuring the changes are sustained long-term (Hussain et al., 2018:123–125). Moreover, for the purpose of this study, the model offers sequential anchors and indicators for understanding internal behaviours, barriers and enablers during these inevitable organisational shifts in MNCs.

In Figure 2, it is further described and visualised how the process of organisational change is done, with the arrows showing different stages of the three-step model instead of the relationship between the constituents (Hussain et al., 2018:126).

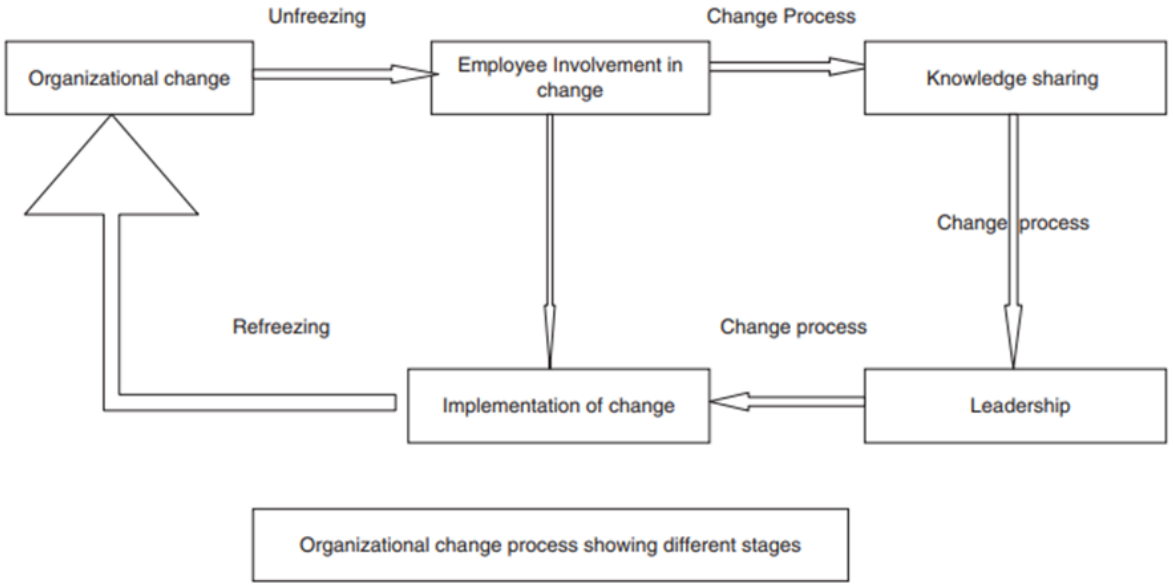

Figure 2: *Lewin's Three-Step Model visualising the process of internal organisational change within MNCs (Hussain et al., 2018:126).*

Furthermore, Laig & Abocejo (2021:32) argue that organisations must have the desire to change to improve and grow business operations, otherwise, they will lose their competitive edge and profitability. Here, Kotter's 8-step model applies to managing change for the success of an organisation when change is inevitable (Kotter, 1995:57). The models' three phases, illustrated in Figure 3, divides organisational change into 8 different steps: creating a sense of urgency, creating a guiding coalition, developing a clear change vision, enlisting a volunteer army, enabling action by removing barriers, generating short-term wins, sustaining acceleration, and institute change (Laig & Abocejo, 2021:35-37). Kotter (1995:57) underscores 2 main lessons with the 8-step process, the first one is how the concept of change includes several phases that commonly take a long time. It is also emphasised that it is unfavourable to skip past phases of change just to attain short-term speed, as such is at the expense of term success. The second lesson is about the importance of succeeding with each phase since failure in doing so could reduce the speed of improvement, neglect prior gains and hinder long-term profitability (Kotter, 1995:57).

Figure 3: *Kotter's 8-Step Model for Organisational Change (Trawick & Carraher, 2023:13).*

With the purpose of applying an integrated framework to identify and understand internal management barriers and enablers that influence the RL adoption process, this thesis combines Lewin (1947:35) Three-Phase Model with Kotter (1995:57) 8-Step Model. As such it offers a complementary and robust framework for analysing internal management dynamics in organisational change—particularly in complex, multi-layered transformations like the adoption of CE and RL practices in MNCs operating within GVCs. Lewin's model provides a foundational structure—unfreezing, changing, and refreezing—that captures the psychological and organisational stages of change (Lewin, 1947:35). However, its broad scope is complemented by Kotter's model, which breaks the change process into eight actionable steps, providing practical guidance on leadership, communication, employee engagement, and the institutionalisation of new practices (Hussain et al., 2018:126). Together, these models enable a more nuanced analysis: Lewin helps identify when resistance or support may arise, whilst Kotter explains how to mobilise commitment and embed change effectively. A detailed approach that not only enhances the possibility of formulating theoretical and practical actionable recommendations in the conclusion of the thesis. In addition, the approach is particularly relevant for MNCs navigating diverse cultural, operational, and structural complexities across global contexts.

2.3.3 Global Integration - Local Responsiveness

When viewing and examining MNCs and their subsidiaries, the concept and theory of global integration – local responsiveness (I-R) is central. The framework, defined by Healey (2018:1-2) as "providing a standardised product or service globally allows them to exploit economies of scale and build a global brand". In other words the concept captures the strategic tensions MNCs face: Global integration, involving the coordinated worldwide deployment of resources, or local responsiveness, requiring sensitivity and adaptation to local market conditions and customer needs.

Fan et al. (2008:922) stress the importance of managerial perceptions in navigating the pressures of integration and responsiveness. MNCs must adapt to local environments to compete effectively, as rigidly global strategies may fail in diverse markets (Rosenzweig, 2006:37). Local responsiveness becomes critical in fragmented markets with distinct customer needs, costs, and trade barriers (Brock & Siscovick, 2007:355). Conversely, in a globalised, competitive industry, integration becomes more essential than responsiveness (Brock & Siscovick, 2007:357).

However, a common challenge for MNCs lies in the mismatch between global integration and local responsiveness, often due to a limited awareness or capacity to reconcile global and local priorities (Spender & Grevesen, 1999:69). As Jain (2024:27) notes, the ability of MNCs to remain competitive depends not only on structural alignment but also on managerial agility in leveraging both global scale and local insight. Effective coordination between headquarters and subsidiaries is thus critical to translating strategy into practice. This tension becomes especially pronounced in the context of sustainability initiatives, which often demand globally consistent standards, such as corporate climate targets, ESG reporting, or circularity goals. But, facing regulatory variations, different infrastructure readiness and shifting levels of stakeholder expectations in their subsidiary host countries, it demands that the MNCs locally adapt their policies and initiatives to ensure successful implementation and scaling. However, implementing common or standardised measures for sustainability initiatives is argued not to promote innovation or creativity, nor will the stepwise implementation of sustainability lead to required outcomes (Crews, 2010:20). Consequently, Devinney et al. (2000:6) presents findings on effective management, with regards to the I-R framework, and that the barrier lies in a limited

capability within the organisation, instead of a lack of commitment and insights. Effective management and centrality are therefore displayed to be of most importance for the organisation and MNCs wishing to implement value-adding initiatives and activities across the entire global market (Devinney et al., 2000:6).

In this context, to understand how internal management factors influence the success or failure of RL strategies, the I-R framework utilised as an analytical lens, can help explain why even mature, high-capacity and well-resourced MNCs may struggle to scale sustainability efforts across borders if internal coordination, managerial awareness and initiative engagement, are not effectively aligned. Ultimately, as research indicates, success hinges on management's ability to enable flexibility, foster innovation, and engage stakeholders across diverse contexts (Jain, 2024:27).

2.4 Proposed Theoretical Framework

All theories in the framework address the internal organisational dynamics—such as strategic misalignment, conflicting stakeholder interests, and resistance to change—that shape the implementation of sustainability initiatives like RL and the transition towards circular business models. Together, the authors of this thesis created a comprehensive framework with all theories for analysing RL adoption and circularity transitions in multinational firms. The I-R framework addresses global integration vs. local responsiveness, the stakeholder theory through the stakeholder salience model contextualises the role of different internal and external actors, and organisational change theory explains resistance and internal adaptation. The integrated framework concretises the study's analytical focus on internal managerial barriers and enablers, directly supporting the analysis of both RQ1 and RQ2.

Each theory in the developed framework is purposefully included in relation to the aim of the thesis to offer a distinct perspective on the core research questions. For RQ1, which explores managerial barriers to RL integration in MNCs, organisational change theory clarifies how internal structures, leadership behaviour, and change resistance hinder progress. Thus, it highlights the tension between short-term financial performance and long-term circularity goals, showing how leadership strategy,

internal communication, and resource prioritisation either hinder or enable RL adoption. Without clear support and incentives, managers are more likely to prioritise traditional operational goals over RL. Therefore, this theory is essential to identify internal hinders, resistance, and enablers to uncover what drives or impedes change processes, such as for RL in the transition towards circular business models.

Similarly, in relation to RQ1, the I-R framework explains how managerial decisions and priorities, in a global vs. local dilemma, affect RL implementation across international markets. Specifically, it implies that HQ needs to balance the development of standardised RL strategies with a local responsiveness to fit strategies to local market conditions, such as regulatory and logistical contexts. As a result, whilst global integration refers to standardised RL strategies developed at HQ-level, local responsiveness focuses on market-specific adaptations to ensure legitimacy, profitability and efficiency. Thus the I-R framework, in relation to RQ1, highlights the need for managers at HQ to provide standardised strategies whilst also empowering local managers with autonomy to ensure an efficient RL initiative.

Moreover, the stakeholder theory contributes to RQ1 by clarifying how internal and external stakeholders might enable or hinder the adoption of RL across the GVC, e.g., with customers, suppliers, or regulators. The theory emphasises the managerial role in prioritising stakeholders and aligning stakeholder interests where commitment and communication are essential for collaboration. With stakeholder management and organisational commitment, it allows for coordinated and effective RL implementation with supplier collaboration.

For RQ2, which examines how strategic priorities shape MNC's ability to scale RL internationally and its operational implications in diverse markets, the I-R framework is instrumental in understanding how MNCs scale RL by adapting strategies to local conditions, e.g., complying with local regulations and facing stakeholder expectations. It also highlights the tension between standardisation and local adaptation, underscoring the scalability of RL initiatives for MNCs and the need to adapt strategic priorities based on local market characteristics. The theory contributes to RQ2 by underscoring how

strategic priorities must be assessed and adapted accordingly, how MNCs perceive the value of standardisation and when responsiveness is a necessity to ensure viability.

Likewise, ensuring strategic alignment within top management is crucial for the stakeholder theory, emphasising the importance of top management alignment with internal stakeholders and cooperation with external stakeholders to find the best fit for the RL integration across borders. The stakeholder theory further demonstrates how the demand from customers and requirements from regulations influences RL adoption and how poor cooperation between internal teams and external supply chain actors might hinder the development and create bottlenecks for RL implementation.

Lastly, the organisational change theory contributes to RQ2 by further emphasising the importance of internal alignment for cross-border RL implementation, as large organisations often have an innate resistance to change. From this perspective, the theory also highlights how leadership, organisational structure and strategy, together with the resistance to change, can affect the scalability of RL across borders. It therefore provides insights into how communication from top management can either be an advantage or a disadvantage to RL initiatives. Furthermore, organisational change theory advocates for a corporate culture to encourage RL adoption, and by implementing change strategies, the organisation can foster its implementation efficiently. For international scalability, it is therefore imperative to foster a change-oriented culture and integrate RL practices into the MNC.

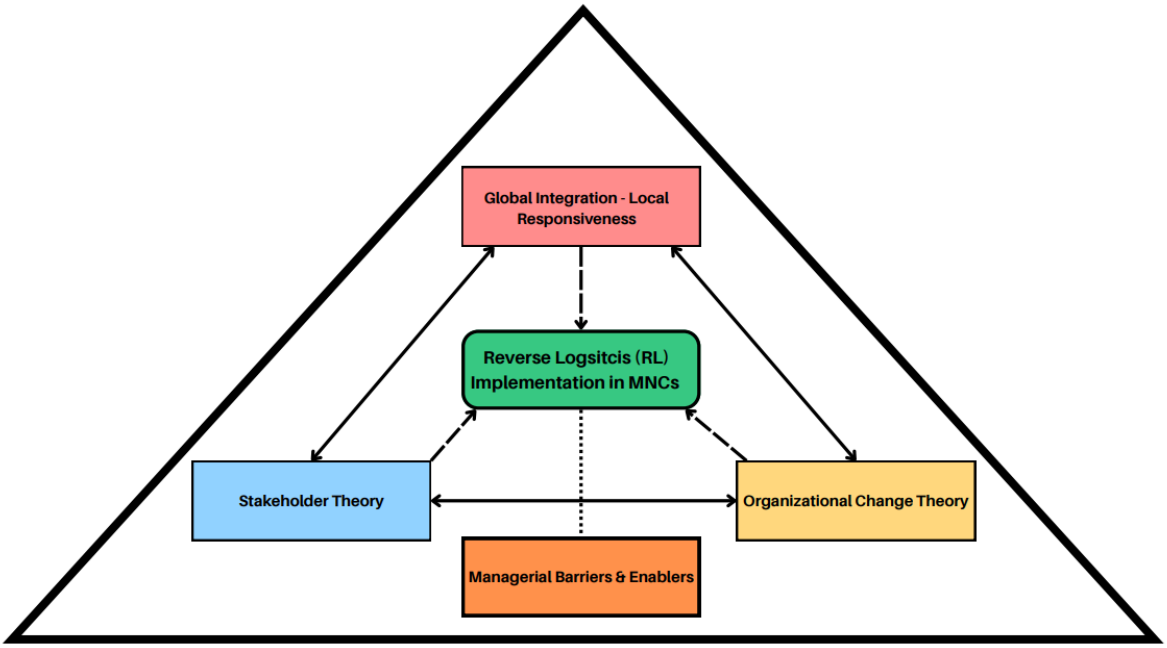

Figure 4*: Proposed Theoretical Framework (Authors' own illustration).*

To illustrate the interconnections and interactions between the theories and concepts, a theoretical framework has been created (Figure 4). The theoretical framework is produced by the authors of this thesis to integrate the three main theories of this study – Stakeholder Theory, Global Integration versus Local Responsiveness (I-R framework), and Organisational Change Theory, which, together with managerial barriers and enablers, directly or indirectly influence the RL implementation across MNCs.

Furthermore, the model depicts double-headed arrows between the theories to indicate a mutual influence. Through this, the model aims to highlight the relationship between the models by explaining how the global vs local dilemma in the I-R framework is relevant in stakeholder theory when stakeholders need to balance stakeholder demands, such as customers and suppliers. The I-R framework also connects to organisational change theory by emphasising how global or local differences require the organisation to change from within to make internal sacrifices. Also, both stakeholder theory and organisational change theory relate to each other by creating resistance to change within MNCs when stakeholder conflicts or misalignments occur.

Additionally, the dotted arrows from each theory point towards the central theme, RL implementation in MNCs, demonstrating how each theory directly affects the implementation of RL. These arrows show how each theory contributes to the central theme on their own, whilst the double-headed arrows depict how they all together contribute to each other, as well as the central theme.

Importantly, the square of managerial barriers and enablers is connected to RL implementation in MNCs by a dotted line, not an arrow, to illustrate that it only acts as an influencing factor towards a successful implementation and not to highlight a cause-and-effect relationship between the two. This concept of managerial barriers and enablers is also presented in an isolated manner in the figure, emphasising its independence from the three main theories in the model.

3. Methodology

3.1 Research Approach

To approach and explore insights into how the adoption of RL and CE practices is implemented for MNCs, a qualitative research methodology has been determined to be the most appropriate approach for this thesis. The qualitative method enables this study to explore beliefs, experiences, attitudes, behaviours, and interactions of managers within MNCs through in-depth studies and targeted questioning (Pathak et al., 2013:192). Particularly, it allows participants to share experiences, contributing new insights and fostering strong engagement from all parties. Additionally, this study will make use of a multiple case study design to interview professionals with different vehicle manufacturers to get a broad and deep understanding of similarities and differences between multinational organisations active in 5 different countries (Bell et al., 2019:390).

Moreover, Bell et al. (2019:357-358) outline six steps in qualitative business research: formulate research questions (RQs), select relevant subjects, collect relevant data to support the RQs, interpretation of said collected data, develop a theoretical framework, and lastly produce findings and conclusions where the RQs are answered, together with future recommendations (Bell et al., 2019:357-358). These steps are complemented by sub-steps that refine focus, enhance understanding, and create a continuous loop between theory and data collection (Bell et al., 2019:361). By this iterative process, findings from interviews are continuously refining the theoretical framework to evolve the theoretical position throughout the research (Thomas, 2003:1; Bell et al., 2019:20). As such, qualitative data have been analysed through an iterative process where emerging findings are continuously fed back into the theoretical framework.

Conclusively, for this study, the qualitative research methodology enables a deeper analysis on how managers within manufacturing MNCs manage the implementation and scaling of RL practices, and the transition towards a CE. It provides the necessary depth to capture real-world experiences, decision-making processes, and interdepartmental interactions that are central to the purpose of the

thesis. Given the complex and evolving nature of circular practices, examining these dynamics through interviews is essential for uncovering both strategic and operational perspectives (Knott et al., 2022:1). Furthermore, the theoretical framework has been carefully integrated into the design of the interview guide to ensure that each question aligns with the core themes of the study. In this way, theory not only shapes the data collection process but also serves as the foundation for interpreting the empirical findings through a structured, analytical lens (Collins & Stockton, 2018:2-7).

3.2 Data Collection

The primary data collection in this study supports the development of theoretical insights and responses to the RQs. Considering the study's scope, problem formulation and purpose, for the data collection, a non-probability sampling method is chosen as the researcher does not sample research on a random bias (Bell et al., 2019:389). More specifically, will purposive sampling be utilised, a well-known sampling method that intentionally selects participants, in this case based on their relevance to the RQs (Sharma, 2017:751). This, as the method allows the researchers to focus on respondents who are best suited to provide rich, relevant insights (Rai & Tapa, 2015:1). Whilst the selection of managers, geographical locations and MNCs mainly were done based on their relevance, expertise and reliability in relation to the aim of the study, practical considerations such as availability and access also influenced the final sample composition. Consequently, although offering valuable insight into RL integration within established economies, the thesis may not fully highlight findings that could have been revealed through alternative sampling methods. Particularly, this study does not directly reflect region-specific barriers, challenges and dynamics, such as those evident in developing or less industrialised markets, or companies of smaller size.

Moreover, this research will focus on semi-structured interviews as the collection of qualitative data, which is argued to be less disruptive for the researchers, as well as offering flexibility and deep insights (Bell et al., 2019:434). Particularly, the ability to alter questions and emphasis, in turn making conversations flow better and consequently, can become essential to obtain more accurate, deep and original information from the interviewee. This type of improvisation implies that the interviewers of

the research might add or drop questions in the interview guide to respond to what the interviewee states in real-time (Bell et al., 2019:436). Still, such interviews where the interviewer has pre-planned questions for the interviewee beforehand on certain topics to cover, requires an interview guide for the interviewer whilst the interviewee still has great freedom in the answers (Bell et al., 2019:436).

3.3 Data Analysis

The strategy for this research utilises semi-structured interviews for primary data collection. The multiple case study design is applied to gather information from several data sources and working professionals to collect rich empirical evidence and data from different countries and companies that all are active in the same industry sector. A case study design was selected due to its widespread use in IB research, making it a suitable approach for this thesis where it enhances the theoretical generalisability of the findings, meaning the thesis generalise theoretical concepts rather than populations, supporting a comparative analysis across different cases (Bell et al., 2019:63-67).

Moreover, in organising and analysing the data, the study adopts a thematic analysis within the framework. The thematic analysis examines the gathered data to establish patterns and themes with one data source or across multiple data sources to analyse repetitions, similarities, or differences (Bell et al., 2019:519).

Selective coding is applied since the central theme is the core research focus, RL, where all other surrounding categories are integrated and implemented to best fit the central focus of the core research (Bell et al., 2019:523). To code data, the idea is to manually form transcriptions to analyse and help the researchers remember valuable information, allow for a more thorough examination, and increase credibility in the analysis (Bell et al., 2019:445), whilst anonymised interviewees are examined and documented through notes during the interview.

3.4 Validity and Reliability

In qualitative research, validity and reliability are crucial to ensuring the trustworthiness and rigour of findings (Bell et al., 2019:46). Validity refers to the integrity and justifiability of the conclusions that are derived from particular research, and to which extent the interpretations of the results of the research can be justified and valid. Whilst concepts such as measurement and internal validity are more common in quantitative studies, qualitative research instead emphasises credibility, transferability, and dependability (Bell et al., 2019:46-47). A key challenge is achieving external validity—that is, ensuring findings are meaningful and applicable beyond the specific case studied. Ferguson (2004) highlights this as the link between knowledge generation and its practical utility.

To strengthen credibility and reduce bias, this research adopts methodological triangulation, in other words using multiple data sources within the same qualitative approach, to ensure the research has been conducted in good faith, fair and shrinking investigator bias and providing a set of multiple perspectives to the findings. The authors of this research will apply the most common mode of triangulation, methodological triangulation, which implies research studies that use two or more data collection sources with the same qualitative methodology (Heale & Forbes, 2013:98). Thurmond (2001:256) presents the advantages of methodological triangulation as the opportunity to strengthen the validity of findings, from a combination of strategies, since observations can reinforce data retrieved from interviews. On the other hand, the disadvantages of the methodological triangulation concept are barriers that might hinder the use of triangulation, namely differences in epistemological stance, increased cost of multi-method research, lack of investigator expertise, difficulty in mixing numerical and narrative data, and the reluctance of some publishers to publish studies of multi-methods (Thurmond, 2001:256).

Another element of triangulation adopted in this thesis is respondent validation, which involves giving the respondents data, such as interview transcriptions, to review for accuracy. This procedure seeks to further enhance the credibility of the results by allowing interviewees to confirm and validate quotes and statements, clarify potential misunderstandings, and ensure an accurate representation of their perspectives (Torrance, 2012:114-116).

In summary, the above chosen methodology will be applied to ensure a study with trustworthiness, credibility, and a strong understanding of the potential complexities regarding validity and reliability in the research process of collecting data.

3.5 Selection and Description of Interviews

As stated above, this thesis uses primary data collection through semi-structured interviews with working professionals in the field of automotive and vehicle manufacturing. The interview schedule, shown in Table 1, explains the amount of interviews this study conducted, the role each respondent holds, how the initial contact was made, the date of the interview, with which forum the interview was operated, how long the interviews lasted, and what the country of origin the MNC of the interviewee had.

The method for choosing the respondents comprised an extensive search for adequate and relevant working professionals in the same industry field. To search and find suitable respondents for the interviews, the authors looked at company websites that are active vehicle manufacturers and for professionals with a job title that is highly relevant to the subject of this thesis. Job titles that were considered relevant to the subject were those concerning circularity, sustainability, logistics, manufacturing, and management. These keywords that were sought out in the job titles were also chosen because it was believed that they would contribute most to answering the questions in the interview guide, which is connected to the theoretical framework and RQs of this thesis. By this method, to carefully choose the respondents based on their company, role and working background, the interviewers could retrieve highly valuable and relevant information from the interviews to answer the RQs and to give profound conclusions with future recommendations.

Respondent ID	Role	Mode of Contact	Interview Date	Interview Mode	Interview Duration	Country of Origin

Respondent 1 (R1)	Director of Manufacturing Solutions	Email	13 March 2025	Microsoft Teams	34 minutes	Sweden
Respondent 2 (R2)	Project Manager of Circularity	Email	13 March 2025	Microsoft Teams	34 minutes	Sweden
Respondent 3 (R3)	Sustainability Manager	Email	26 March 2025	Microsoft Teams	26 minutes	Germany
Respondent 4 (R4)	Director of Manufacturing & Engineering	Email	26 March 2025	Microsoft Teams	35 minutes	Sweden
Respondent 5 (R5)	Environmental Manager Logistics	Email	28 March 2025	Microsoft Teams	37 minutes	Sweden
Respondent 6 (R6)	Executive VP	Email	2 April 2025	Microsoft Teams	48 minutes	Sweden
Respondent 7 (R7)	Project Management Sustainability	Email	3 April 2025	Microsoft Teams	29 minutes	Germany
Respondent 8 (R8)	Manager of Circularity	Email	4 April 2025	Microsoft Teams	30 minutes	USA
Respondent 9 (R9)	Head of Remanufacturing	Email	4 April 2025	Microsoft Teams	36 minutes	UK
Respondent 10 (R10)	VP Project Management	Email	4 April 2025	Microsoft Teams	33 minutes	Japan
Respondent 11 (R11)	Circular Lead	Email	11 April 2025	Microsoft Teams	28 minutes	Sweden
Respondent 12 (R12)	VP Production Logistics	Email	14 April 2025	Microsoft Teams	27 minutes	Sweden
Respondent 13 (R13)	Head of Logistics	Email	14 April 2025	Microsoft Teams	29 minutes	Sweden
Respondent 14 (R14)	Senior Global Projects Operations Manager	Email	15 April 2025	Microsoft Teams	26 minutes	Sweden
Respondent 15 (R15)	Sustainability Project Manager	Email	16 April 2025	Microsoft Teams	28 minutes	Sweden

Table 1: *Interview Schedule (Authors' own illustration).*

The respondents were asked eight main questions based on the interview guide, available in Appendix 2, that were developed specifically for this thesis and were grounded in the integrated theoretical framework combining Stakeholder Theory, I-R framework, and Organisational Change Theory. After an introductory question regarding the respondent's current role and responsibilities, questions 2-5 focused on strategic prioritisation, top management awareness, strategic commitment, KPI structures, and the tension between short-term vs. long-term objectives. These questions addressed both RQ1 (managerial drivers) and RQ2 (global-local reconciliation), drawing on Organisational Change Theory to explore internal knowledge gaps, management prioritisation and drivers for RL implementation. At the same time, the I-R framework guided questions around aligning global RL strategies with local responsiveness, and the Stakeholder Theory shaped questions on managerial roles and stakeholder prioritisation.

Moreover, questions 6-7 further reflected the Stakeholder Theory and the I-R framework, by examining stakeholder relationships and how MNCs adapt RL strategies to local conditions whilst maintaining global coherence. Specifically, the focus was on how centrally developed RL strategies are implemented and tailored to local market conditions, thereby supporting RQ2 concerning the reconciliation of global integration with local responsiveness. The final question, guided by Organisational Change Theory, explored necessary future conditions, changes, and enablers to accelerate sustainability and circularity transitions. Altogether, the interview guide was systematically developed based on the integrated theoretical framework of this thesis, enabling a structured yet flexible approach to exploring the research questions through the lens of each theoretical perspective.

3.6 Methodological Reflections and Ethical Considerations

This study employed a purposive sampling method to enable the respondents to provide rich, contextually grounded insights aligned with the study's focus on internal managerial factors in RL, circularity, and sustainability implementation. Whilst relevance and expertise was the basis of the respondent selection process in relation to the aim of the study, practical considerations such as availability and access also influenced the final sample composition.

Therefore, to enhance generalisability and a more global applicability of the gathered insights, future research should focus more on RL and circularity integration in broader geographical and socio-economic settings. Consequently, due to the qualitative nature of this study and the limited sample size, the findings may not reflect the full range of perspectives or experiences within the broader automotive industry concerning RL, CE, and sustainability integration. Future research could therefore extend this design by involving longitudinal approaches or perspectives from other stakeholders to triangulate findings.

Also, ethical principles were meticulously upheld through the research process. For instance, all respondents were informed of the purpose of the study and participated in the interviews voluntarily. Moreover, the anonymity of the respondents was assured both before and during each interview and also adhered to in the presentation of the empirical findings and analysis of the data.

4. Results

The empirical findings of the following chapter are presented in two overarching sections, each corresponding with one of the study's research questions. Within each section, the results are thematically structured around key insights that emerged during the interviews, and which closely relate to the thesis proposed theoretical framework. All interviewees are referred to as Respondent 1 (R1), Respondent 2 (R2), etc, based on the ID they were given in Table 1, presented in Section 3.5, where additional interview details, such as respondent roles, interview mode, duration, are also provided.

4.1 Internal Managerial Challenges to RL Adoption

4.1.1 RL as a Strategic Enabler

Across the interviews, it became evident that the role of RL has increasingly evolved from a compliance-based obligation to a strategic enabler within MNCs, particularly in the automotive industry. As such, SSCM, CE and RL not only are embedded in MNCs corporate strategies but also are seen as a competitive advantage with potential to support long-term value creations, align with stakeholder expectations and exceed environmental regulations. R4 and R14 emphasised this transition clearly:

> "*Earlier, quality and reliability were important competitive advantages, but now they are prerequisite. The same goes for sustainability, and particularly RL, — it's an enabler as it holds dual strategic value: it attracts investors who demand environmental responsibility, and it meets the expectations of customers and internal operations, including the pursuit of carbon-neutral factories*" (R4).

> "*It's a non-negotiable now. You have to have it. Which means that we need to have it in mind in everything we do. Because you can not ignore it. It's no longer just cost that matters*" (R14).

Moreover, R10 noted that when done right, communicated transparently and marketed effectively, their MNC can translate its environmental image into financial value, further monetising their RL practices.

4.1.2 Top Management Awareness, Engagement and Commitment to RL

Consequently, given the increasing strategic importance of RL, all respondents described a relatively high level of awareness and knowledge among top management, especially among executive leaders who maintain strong public positions. As one respondent noted "*it is no longer just a trend – it's established*" (R1). Rather than a fixed state, this awareness and knowledge were by all respondents framed as an ongoing process that had been actively cultivated over time through targeted initiatives, such as online training, seminars, frameworks. Particularly, R4 underscored the importance of regular information meetings, focused both on the *why* and the *how* behind CE and RL strategies, and the alignment between the organisation's science based targets and broader sustainability goals, such as the Paris Agreement. Examples highlighting that, knowledge-building has not been left to chance. Rather, it is the result of systematic and sustained investment in internal capability-building, strategic framing, and consistent leadership communication, as explained by several of the respondents. However, still, as R6 pointed out, knowledge gaps remain inevitable in large organisations:

> "*I don't think any leader can honestly say, 'I have all the knowledge I need.' The answer is always no — there's always more to learn. In a large organisation like ours, differences in knowledge and awareness are natural and expected, and is something we always have to work with and continuously try to improve*" (R6).

Despite inevitable variation in knowledge levels across managerial layers, all respondents consistently emphasised that the very top management in many cases has set a clear tone, showing a strong commitment towards CE and RL. Even when facing challenging geopolitical contexts and uncertainties, such as the recent shifting U.S. policies. For instance, according to R1, their CEO proactively, publicly and explicitly reaffirmed core values to mitigate internal doubt in relation to long

term sustainability, circularity and RL goals and maintain momentum. Similarly, R2 and R10 both affirmed strong executive engagement:

> "*Our top leadership really pushes it, especially the CEO, and it trickles down through the whole company, even to suppliers, transporters and customers*" (R2).

> "*Support for these initiatives, both internally and publicly, is genuinely embedded in top leadership, who really understand and show the importance of circularity and reverse logistics*" (R10).

> *"Without strong top management commitment, you wouldn't even be in the game anymore. It's a must in today's business climate, you can't not have it"* (R14).

As such, all managers described top management's strong commitment and explicit communication as having been central for building internal engagement and increasing involvement in RL practices among managers horizontally and vertically. To exemplify, by utilising a metaphor R1 humorously noted that: "*when the new CEO stopped wearing a tie, all sub-managers suddenly did the same*" (R1), emphasising how symbolic leadership actions shape broader behaviours, and are one of the major reasons behind the organisation current engagement levels. An illustration that aligns with broader accounts from the interviewees, who consistently described top management's engagement and clear communication as central for building internal momentum and cross-functional alignment for RL initiatives. However, R5 and R3, adds a pragmatic note: management engagement, particularly at levels below the very top, requires showing business value:

> "*For leadership to stay engaged, the sustainability community must prove it's profitable*" (R5).

> "*Most managers are aware, but hesitant without clear business incentives or cases. And honestly, that puts quite a bit of pressure on us working with sustainability to come up with strong, reliable numbers, convincing cases, and really show how it ties into the business and delivers profitability long-term*" (R3).

An illustration underscoring how managerial engagement is often contingent upon clear, quantifiable business outcomes. R11 shared a similar view, emphasising that although most managers now are aware of and understand CE, RL, and SSCM, a persistent belief remains that sustainability necessarily increases cost. A financial framing that, unless addressed, can create resistance to prioritising RL internally, as echoed by R2:

> "*It's a constant battle internally to secure attention and resources, and to get middle management to understand that this isn't just about scrap—it's a complex process. But internally, it always comes down to the business case, and often just money. Because at the end of the day, that's what decisions are made on: Swedish kronor*" (R2).

Despite growing sustainability ambitions, the prioritisation of RL initiatives was consistently described as contingent upon their economic viability. Respondents portrayed a reality in which environmental considerations must be integrated into competitive, cost-sensitive, and highly globalised markets. Especially in industries with very thin margins, like commercial vehicles, MNCs need to be selective—prioritising circular solutions where market readiness and cost efficiency intersect, as both R5 and R6 put it:

> "*You have to be realistic. People idealise RL like there's massive value in it, but often it's hard to make it pay off competitively, and then we can't justify why we should do it. We pick initiatives where the market sees value—where there's actual demand*" (R5).

> "*Reverse logistics has to be profitable. Demand is key. Circular solutions must be economically competitive—otherwise, customers won't buy. Substituting new parts with remanufactured ones only works if the price is right. That's just the reality*" (R6).

On a similar note, R7 and R11 both noted that even though sustainability has become a unique selling proposition (USP) and long-term differentiator within certain customer segments, financial logic still drives short-term decisions:

"*Projects need to be financially viable. We can't just do them because they're good for the environment. But if they also move the needle on our sustainability goals and bring us long term value that way, then we're all in*" (R7).

"*We aim to be a profitable company, so cost is always a factor. That's why we need to be creative—think about lifetime costs, closed-loop systems, and new business models that in the long run are more profitable*" (R11).

4.1.3 Lack of Standardised KPIs for RL and Circular Performance

However, whilst circularity ambitions are growing, a particular barrier that remains a major obstacle to turning those ambitions into business decisions, is the lack of standardised, comparable KPIs as emphasised by several respondents. Unlike financial metrics, sustainability indicators are often fragmented, inconsistent, and difficult to aggregate, making it hard to financially compare, justify investments and track progress across operations, as emphasised by several respondents:

"*Finance has established metrics that have been used for centuries—but for sustainability, there's just no such thing. You're comparing CO_2 in grams to gender equality. It's not standardised, and it's hard to aggregate*" (R3).

"*It's the single biggest challenge in scaling circularity. Without solid performance indicators, we struggle to communicate impact, prioritise initiatives, follow up and create the financial incentives needed to drive change. But without clear targets and measurable indicators, sustainability efforts risk remaining abstract. Developing such metrics is essential for us to make environmental performance more transparent, actionable, and integrated into core business reporting*" (R4).

Faced with internal competition over economic viability, external market pressure, and the responsibility for driving these initiatives, the challenge becomes significant — particularly from a managerial perspective, as several respondents noted:

> "*Management is open to ideas—but we need examples and business cases that prove value that can justify long-term investments. Otherwise, it's hard to get buy-in*" (R5).

> "*Many of our circularity initiatives, such as RL, generate value, but without proper tools, that value is invisible. You can't improve what you don't measure*" (R8).

A need for holistic, effective, and comparable indicators that become more urgent in the light of new reporting requirements being introduced, especially as recent disclosure and reporting scandals come to light:

> "*Our strategy is clear, but without better KPIs, we can't follow up or prove progress. And with new reporting requirements, the pressure to quantify is only growing. The new sustainability rules make the numbers visible — and once they're visible, it's clear who's behind*" (R11).

> "*The automotive industry has a history of low transparency, something that has recently been highlighted by the media as several actors have been scrutinised for withholding information on recyclability and material composition. Having to present actual figures makes it very clear: we need to address this issue in order not to fall behind*" (R7).

Particularly, the recent media and customer attention on greenwashing, underscore that genuine engagement must be backed by evidence and not just external image. A matter raised explicitly by several respondents, who stressed the importance of evidence-based communication:

> "*It's a highly competitive industry, and we have a responsibility to be transparent about what we actually do. That takes enormous effort and money. You can't just say, 'we're doing this because it's good for the environment. Greenwashing is a serious risk, we look at that very seriously. We only say what we can prove and have evidence for. But right now, these things are difficult to measure and show in a good way*" (R3).

Across the interviews, the respondents made it evident that communicating transparently, trustfully and effectively, both internally and externally, making it understandable, tangible and not seem like

greenwashing, is extremely hard, and for many of the MNCs is one the biggest challenges going forward:

> "*Transparency is crucial — not only about successes, but also about the challenges. Customers need to understand the opportunity costs of not investing in sustainable solutions like RL*" (R6).

> "*Building understanding, willingness and genuine engagement is both the biggest challenge and the greatest opportunity in RL. It's difficult to convince customers to bear the cost of sustainable solutions, especially when they don't see the immediate value. That's why it's essential that we are transparent and continuously highlight the problems, so that everyone understands what we do, why we do it and the reasons why something is more expensive here and now. Because it will pay of long term*" (R11).

Consequently, several respondents pointed to the urgent need for better economic models for SSCM, CE and RL initiatives that reflect lifetime costs and circular value creation—especially when recycled or reused materials appear more expensive upfront. As R6 summed it up:

> "*At the end of the day, we still need to compare in kronor. That's how we make decisions. That's how our suppliers make decisions. And that's how our customers make decisions*" (R6).

4.2 From Global Vision to Local Action: Scaling RL in MNCs

Although various benefits were highlighted during the interviews, several respondents remained critical in terms of RL actual potential, profitability and effectiveness for MNCs in the current business environment. Particularly, Respondent 6 highlighted the structural disadvantage of RL, noting that:

> "*The new circular economy is competing with the economy that has been perfected for 150-200 years even since the industrialisation … despite being a much younger and more expensive alternative*" (R6).

The inherent asymmetry in maturity, efficiency, and societal familiarity between established linear models and emergent circular practices, make the integration of RL both more resource-intensive and strategically challenging internally for MNCs, as Respondent 6 thereafter further emphasises (R6).

Acknowledging that it today is very challenging to align RL scaling with many business cases, Respondent 5 also states their scepticism towards RL, emphasising that RL isn't simply underutilised but constrained by key external enablers, such as market demand, volume, long-term commitment, and supportive regulation, needed for successful scaling. Particularly, as Respondent 8 highlighted, scaling of global RL systems is currently very inefficient, noting that local restrictions often block core imports and exports, forcing reliance on local remanufacturing. The respondent illustrated the complexity through tracking remanufactured products.

> "*You have to manually match the serial numbers of every core sent out and returned, a process that's both time-consuming and hard to scale globally. It's ineffective!*" (R8).

4.2.1 Bridging Global Strategies and Local Markets: Challenges

Throughout the interviews, a common theme and desire among the respondents was to establish a shared understanding and internal diffusion of practices and initiatives between subsidiaries and the HQ. For instance, R4 emphasised the importance of a common language within an MNC, especially with diverse cultural backgrounds, to improve efficiency and reduce misunderstanding. However, R1 noted that despite implementing a global sustainability framework across over 100 countries, it took over a decade to align internal communication across regions, and further adding that, as a more curious example of the challenge, it took 5 years after the merger for all subsidiaries just to have shared email addresses (R1).

Furthermore, several respondents also discussed the need for global standardisation in sustainability strategies. Respondent 1 and 2 highlighted their companies' goals to apply standardised processes worldwide, which also involves the demand for equivalent standards and requirements. Additionally, R11 expounds on this strategic view and states "*the strategies we set up for circularity and RL are supposed to apply globally… in theory*", whilst also addressing the fact that there are local market differences, which implies adaptations to local market conditions. Closely related to this, R1 also mentioned that their company maintains: "*The same fundamental requirements on all our factories*" (R1), ensuring equal treatment across subsidiaries, even if some regions, like Brazil and India, have lower sustainability standards.

While regulations were recognised as a significant challenge, it was seen as an "*out of reach*" issue for most respondents. Instead, the focus was on how sustainability strategies must adapt to local market conditions and structural realities, as this is where actionable change can be made in daily operations. For example, R3 expressed that extensive and unclear EU regulatory frameworks could complicate long-term planning, particularly when domestic producers face higher standards than foreign competitors:

> "*Europe is coming out with too many extensive regulations … It is not simplification, it is deregulation*" (R3).

Similarly, R6 acknowledged that although sustainability regulations aim to create fairer trade conditions, their practical implementation remains complex in a globalised context. Whilst regulatory conditions pose significant logistical challenges, respondents highlighted that current policies tend to favour linear business models rather than supporting circular practices when it comes to RL. Consequently, several respondents suggested that evolving market policies, harmonised standards and clearer classifications could help address these inefficiencies and create opportunities for RL, promoting more sustainable, cross-border circular models. Nevertheless, all respondents emphasised that regulations are just one of many factors shaping sustainable strategy, and that internal design, market responsiveness, and innovation capacity are equally critical.

Although desiring and aspiring to scale RL strategy and processes in a standardised manner globally, local realities and conditions make customisation necessary for successful implementation. Often, the customers have similar environmental commitments, but the key difference is the local legislation towards sustainability (R10), where R6 gives an example of how sustainability can look in different markets depending on the focus points and objectives, referring to how the company adapts its sustainability strategy based on local regulations:

> "*Fossil free in Brazil is different than in Norway, it is different solutions. They also have different infrastructure, government goals, and RL feasibility … it is important to have different solutions to the problem depending on where you are located*" (R6).

A clear example of local deviation from global standards in terms of RL comes from India, where for instance refurbishment practices challenge standardised implementation. Respondent 2 illustrates how deeply rooted informal practices hinder alignment with global refurbishment standards:

> "*Often they don't work in factories, rather they sit outside on the sidewalk to repair gearboxes, right next to the street and traffic, and for them, quality can sometimes have different perceptions*" (R2).

Despite these challenges, the respondent emphasised that efforts are underway to gradually align local practices with global quality standards, reflecting a broader shift toward more structured circular operations.

4.2.2 Challenges in Scaling RL Across GVCs

However, unlike at HQ level, where RL adoption is progressing, several respondents emphasised that the main obstacles to global scaling lie externally, such as restrictive regulations, weak market demand, and low return volumes, rather than within internal subsidiaries or systems. Particularly the differing level of maturity and understanding between stakeholders, both internally and externally, were emphasised as challenging. Here, R9 states: "*There are knowledge gaps… the maturity level remains below medium*", referring to whether their GVC is perceived to have managers and employees supporting sustainability and circularity initiatives. The main challenge here is the collaboration with the suppliers and buyers, where the concept and idea of circularity are explained to be new and largely unexplored (R9).

Some respondents noted that many suppliers engage in sustainability efforts merely out of obligation towards the MNC, not genuine commitment. Rather its public perception, making sure to avoid bad reputation and fines, and not risk losing the MNC as a partner that are driving forces. In turn many external actors disregard what work matters the most and the actual effectiveness of the implemented initiatives, such as RL (R3).

Furthermore, Respondent 6 explained how customers' low demand and price prioritisation reflect their organisation's efficiency and profitability in implementing sustainability initiatives:"*most people just go with the cheaper option*", reflecting a more general trend where a low price is preferred over sustainability. A low willingness to pay that Respondent 11 highlighted as a key barrier to scaling circularity and RL initiatives further, particularly in less developed or less regulated markets.

Respondent 1 shared a similar emphasis, noting that their products are more expensive due to ethical production standards, whilst Respondent 3 emphasised that materials like green steel raise costs due to

renewable energy demands, asking, "*Who is going to pay the suppliers to do that?*" (R3). Similarly, respondent 11 pointed out that whilst recycled aluminium is initially costlier, closed-loop systems can reduce expenses over time.

In support of this, respondent 6 also shared a vivid example of a Swedish textile company invested significantly in advanced recycling technologies. However, despite heavy investments the company ultimately failed due to insufficient customer demand. As they explained, "*They invested in recycling … but there were no customers, as their prices were a few percentages higher*" (R6), illustrating how emphasising that for sustainability efforts like RL to be implemented long-term, they rely heavily on demand. That long-term viability requires both customer demand and engagement, not just technological capabilities (R6).

To address the lack of demand, several respondents emphasised the need to educate customers and suppliers to "*close these knowledge gaps*" (R7; R9). As Respondent 7 noted, "*RL still needs customer-side awareness and engagement*" (R7), highlighting the importance of understanding RL for deeper participation in circular systems, particularly when customer knowledge and commitment are limited (R9). As for external partners, respondent 8 describes how their organisation works by stating:

> "*We break it down for buyers… work closely with them. Explain to them*: *Why it does cost more now, or at least seems to do so. That the cost-savings will come, or that the quality and warranties are still the same. Its something we do everyday*" (R8).

Furthermore, respondents highlighted the significant potential for improvement through collaboration with suppliers and customers. As Respondent 5 explained, their company, "*Holds workshops with suppliers... working to define, develop and improve things together*" (R5), in efforts to improve efficiency and profitability. Additionally, Respondent 3 emphasised that successful sustainability initiatives require internal alignment, stating, "*The need to argue how an initiative feeds into the company strategy first*" (R3), underscoring the importance of coordinating internal strategies to achieve the main objective.

5. Analysis

This chapter is structured to directly address the thesis's two research questions. Section 5.1 examines internal organisational barriers and enablers for RL implementation within MNCs (RQ1), structured around key phrases within Lewin's (1947) three-phase model and Kotter's (1995) eight-step change process. Section 5.2 focuses on how MNCs reconcile global strategic intent with local operational realities when scaling RL initiatives (RQ2), drawing on stakeholder theory and the I-R framework to directly address external alignment and stakeholder dynamics. This structure allows for a focused analysis of key tensions and opportunities within each area, providing clear guidance on how the proposed theoretical framework shapes the interpretation of findings, in turn facilitating robust conclusions and actionable insights.

5.1 From Vision to Integration: Internal Forces Behind RL

5.1.1 Unfreezing: The Reversed Dynamic for Top Management Commitment

Drawing upon Lewin's (1947:34) three-phase model, the empirical data presented in Chapter 4 suggests that all the interviewed MNCs has successfully passed through the Unfreezing phase in relation to RL adoption, as evidenced by several fulfilled prerequisites: there is broad organisational awareness of the urgency of sustainability transformation, a clear, strong top-level vision and commitment for SSCM, CE and RL, extensive internal communication, and multiple capacity-building initiatives (R2; R10). Evidence shared during the interviews that aligns well with Kotter's (1995:57) early steps: creating urgency (Step 1), building a guiding coalition (Step 2), creating a vision for change (Step 3), and communicating the vision (Step 4).

However, a notable empirical finding is that in most instances top management commitment to sustainability is exceptionally strong, a result from the interviews that contrasts sharply with much of the academic literature published between 2010 and 2023 that is utilised in the literature review. Several prominent contributors within the field, such as Sonar et al. (2022:3636), González-Torre et al. (2020:892), and Kaviani et al. (2020:13), all identify the lack of top management awareness,

engagement and commitment as the main barrier inhibit MNCs from integration, implementing and scaling RL initiatives effectively. These studies suggest that RL initiatives often remain detached, overlooked and inefficient due to insufficient executive buy-in, resulting in symbolic compliance, hollow gestures, and performative adherence that fail to challenge the status quo or embed sustainability into the core strategic planning of the MNC.

In contrast, among the analysed MNCs, the findings of this thesis reveal a reversed dynamic: the circularity vision is not only clearly defined and well-articulated, but also strongly endorsed and explicitly reaffirmed by top leadership, serving as a foundational driver and catalyst of transformation rather than a limiting factor for effective integration (R14; R4). Interviewees described executive-level engagement, commitment and communication as consistent, long-term focused, and strategically anchored—particularly in relation to circularity and RL (R2; R10). Findings that suggest significant shift from earlier patterns identified in the literature review presented in Chapter 2, where lack of top management commitment was treated as "*a persistent bottleneck and barrier that significantly hindered effective RL integration, scaling and internal diffusion*" (Sonar et al., 2022:3636; González-Torre et al.,2020:892).

As such, this thesis argues that this evolution may reflect broader institutional and normative developments from 2010 until 2023. Since the publication of many of the key academic articles in this field, regulatory pressures, public expectations, and media awareness have all intensified, as illustrated throughout the thesis. As a result, top management commitment to sustainability has transitioned from a differentiating advantage to a basic prerequisite—an organisational minimum standard rather than being treated as a critical barrier or competitive edge. Whereby, by increasingly becoming mainstream, it's no longer optional or pioneering, instead it's expected and institutionalised. As one interviewee put it, "Without strong top management commitment, you wouldn't even be in the game anymore" (R14).

This shift in contextual conditions may explain why the literature's emphasis on the lack of executive and management awareness, engagement and commitment no longer hold the same explanatory

power in contemporary cases like the one conducted in this thesis on the chosen MNCs. Where earlier studies described top managerial commitment as a critical enabler, it is now more accurately understood as a threshold condition for participation in the sustainability transformation on an increasingly globalised, competitive market.

This analytical insight contributes to the existing literature by showing that the relative importance of barriers shifts as the field matures. Whilst earlier scholars provided valuable evidence of why sustainability was not embedded in MNCs corporate finance, our findings highlight that in more advanced, aware and progressive organisations, the barriers have moved downstream, from lack of vision to lack of anchoring mechanisms. This distinction is vital for both theory development, practical interventions and future research recommendations as will be shown further on in this study

5.1.2 Changing and Refreezing: Organisational Liminality in the Absence of Anchoring Mechanisms

As Illustrated by the empirical data presented in Chapter 4, all interviewed MNCs have progressed substantially into Lewin (1947:34) changing phase, whereby managerial awareness and engagement with SSCM, CE, and RL, are not only present but embedded at the strategic level (R2; R10). Evidence that diverges from findings of previous prominent academic articles presented in Chapter 2, which often emphasised top-management commitment as a principal barrier to RL integration (Sonar et al., 2022:3636; González-Torre et al., 2020:892).

However, achieving cultural readiness and high-level commitment should not be misinterpreted as institutional transformation, rather this initial success serves more as a gateway than a guarantee for long-term change. Aligning with Kotter (1995:57) emphasis, the findings of this thesis indicate that the real difficulty lies not in initiating change but in sustaining momentum and translating it into structural and operational norms, where new behaviours must be enacted and anchored through formal structures.

Despite clear top-level management awareness, engagement and commitment, the interviews revealed a lack of standardised, comparable and transparent CE and RL KPIs that can be operationalised at the business unit level. A gap, that for Lewin (1947:34) changing phase presents a severe bottleneck, and illustrates a breakdown in Kotter's middle stages, Step 5 and 6, empowering broad-based action and generating short-term wins. Without actionable metrics, managers lack the tools to justify long-term sustainability investments internally, especially those with delayed or non-financial returns, such as RL.

Moreover, the absence of reliable, transparent and easily comparable performance indicators also inhibits accountability and learning, essential conditions for Lewin (1947:34) refreezing stage of transformation. Particularly, as consolidation of gains and anchoring of new approaches, Steps 7 and 8, in Kotter (1995:57) model require continuous monitoring and reinforcement. A significant facilitating factor that is exactly what the findings of this thesis suggest is missing in the interviewed MNCs: the ability to embed RL into core decision-making. Whereby, without tools, processes and systems to operationalise the RL vision and strategy, transformation remains rhetorical rather than real.

As such, this study extends previous literature by showing that in MNCs today, it is not the lack of awareness, ambition or commitment, but the absence of enabling structures, especially performance measurement systems, that delays RL adoption, scaling and diffusion. Findings that further underscore the critical role of control systems as enablers rather than just monitors of change.

Consequently, by drawing on Lewin's (1947:34) three-phase framework and Kotter's (1995:57) eight steps, this thesis argues that the case MNC is currently in a state of organisational liminality: between the changing and refreezing stages. High levels of awareness and commitment are established, internal behavioural and normative transformation has begun, and initial systems are established, but institutionalisation has not yet occurred. As such, suggesting that the refreezing phase has yet to materialise. This is particularly evident in the misalignment between strategic vision and operational

decision-making, most notably in internal prioritisation, performance measurement and justification of long-term investments, as emphasised during the interviews.

This transitional phase, with MNCs being between stages, underscores a critical yet under-researched space within sustainability transitions: a period where organisational momentum exists, but stabilising infrastructures remain underdeveloped. Visions don't lack clarity, nor do top-management lack commitment, rather the mechanisms to internalise and normalise that vision are insufficiently anchored. Findings that support Lewin (1947:34) assertion that psychological readiness alone is inadequate without structural embedding. and reinforces Kotter (1995:58) emphasis that institutionalisation is the most fragile, uncertain and critical stage of change.

Specifically, as current, liminal state creates risks for MNCs, as clearly indicated by the findings. Without comprehensive, credible, comparable, and communicable performance indicators to substantiate RL's strategic and financial value, particularly its long-term cost-saving potential, initiatives risk being misread, either as cost centres with unclear returns, reputation-driven, or as just symbolic gestures. In turn making MNCs vulnerable to greenwashing claims, and managers to internal scepticism. As such, in the absence of measurement tools that validate their strategic value, sustainability transformations, such as RL initiatives, that require cross-functional investments and long-term perspectives, risk being stalled or deprioritised. Because without institutional anchoring, these efforts are unlikely to achieve efficiency and survive beyond surface-level adoption, as the case of this study clearly illustrates.

5.2 From Local to Global: MNCs Need Stakeholder Alignment for Successful RL Scaling

In theory, as the empirical results highlight, MNCs strive for globally standardised and integrated CE and RL strategies, aiming for mutual goals, processes, structures, and shared terminology, across the entire organisation and markets to improve efficiency and consistency. However, the findings of this thesis disclose that RL operations remain primarily local, driven by external stakeholder misalignment rather than internal constraints, as underscored in earlier literature.

5.2.1 Stakeholder Salience as a Barrier to Global RL Integration

Moreover, customers, suppliers, and regulators, varying in expectations and regulatory frameworks are described to often possess a lack of salience (Mitchell et al., 1997:874; Wood et al., 2021:58) to spur a standardised change, as many stakeholders are either oblivious of the financial value of RL or disengaged from its legitimacy (R6; R7; R8). For example, as empirical evidence displayed, there are countries and markets with local regulations that employ a ban on exports of used components and parts, forcing MNCs to adhere to local remanufacturing practices in isolated procedures instead of utilising centralised and standardised systems. As such, this implies that when external stakeholders determine a local response, the I-R framework's emphasis on internal management is inadequate, highlighting stakeholders as the key obstacle to global RL scalability.

In opposition to earlier literature underscoring internal barriers, such as managerial unawareness of RL or low levels of commitment and engagement, this thesis finds external stakeholder misalignment to be the key obstacle to global RL scalability. As clarified by the results, regulators enforce policies that are inconsistent and protectionist in nature, suppliers lack capability, knowledge or awareness, and customers possess a low demand for products with a circular life cycle. The findings of this thesis also oppose the assumption of the I-R framework with the idea that MNCs can balance global and local strategies with ease, thus emphasising the necessity of incorporating the impact of external stakeholders on outcomes when applying the theory.

Moreover, the Stakeholder Salience Model (Mitchell et al., 1997:874-877; Wood et al., 2021:58) offers a comprehensive understanding of how external stakeholders constrain the desire for global RL scalability within MNCs. The model together with empirical results found that regulators, categorised as “definitive” stakeholders with a high level of power, legitimacy and urgency, greatly influence RL outcomes. However, instead of enabling circular practices, their impact often materialises through ambiguous, fragmented, or contradictory policy frameworks. For instance, as the interviews revealed, ambiguous definitions of waste, in a market with low knowledge, introduce operational uncertainty, inefficiencies, and compliance barriers, in turn hindering the cross-border standardisation and scalability of RL practices. Despite their formal authority and presumed alignment with sustainability goals, regulators in practice, as the empirical evidence underscored, tend to act more as constraints than enablers of circular and RL integration, an outcome that underscores a critical misalignment between stakeholder influence and strategic sustainability objectives.

Additionally, the stakeholder salience model also assists in illustrating why certain actors choose to reduce rather than increase their global integration (Table 2). As an example, regulators in major markets frequently neglect to offer standardised frameworks or incentives for cross-border circularity. As the findings highlighted, localised, protectionist policies from regulatory bodies actively inhibit RL scalability and expose MNCs to unequal competition with foreign competitors.

Furthermore, suppliers, classified “discretionary” because of their legitimacy in their relationship with MNCs and lack of power and urgency are hesitant to RL investments, perceiving them as costly and ineffective initiatives as they, with low knowledge and awareness, have to adapt to MNCs' circularity requirements. Their limited power in this context can be understood in relation to the scale and influence of the MNCs they supply to, which places them in a relatively constrained position when it comes to influencing strategic decisions. The lack of power and urgency might lead to MNCs having difficulties to further legitimise global standardised strategies, potentially leading to weaker competitiveness and inefficient business operations. The findings also displayed the impact of stakeholder dynamics on RL scalability and effectiveness as supply chains become fragmented as a

consequence of the discretionary suppliers' unwillingness to implement RL initiatives, which lowers economies of scale.

Similarly, customers, classified as "dominant" stakeholders due to their substantial power and legitimacy but limited urgency, play a complex role in shaping RL scalability. Whilst their influence is theoretically high, empirical findings reveal that insufficient consumer engagement and limited awareness of circularity diminish their ability to drive demand for RL-enabled products.This challenge is further compounded by consumers' low willingness to pay for sustainable alternatives, despite these often yielding long-term cost savings, as the empirical evidence underscored. Findings illustrate how customers usually have poor knowledge and awareness of circular products and their social and economic cost benefits in the short vs. long term. This short-term mindset and knowledge gap limit the market conditions and demand necessary for scaling RL initiatives, thereby constraining MNCs' capacity to achieve sustainable profitability, as well as wide-scale adoption of circularity and RL practices.

Consequently, the Salience model complements the I-R framework by reasoning why local responsiveness dominates over global integration, thus revealing the external limitations that restrict MNCs' global integration and scalability.

Stakeholder	Current Barrier	Salience Type (Based on *Power*, *Legitimacy* & *Urgency*)	Short-Term Focus	Long-Term Focus
Suppliers	Capability gaps, low awareness, varying maturity in global markets	**Discretionary** (*Legitimacy*)	Educate and align objectives in RL, co-creation of KPIs	Develop strategic circular partnerships
Customers	Low willingness to pay, lack of product life-cycle awareness	**Dominant** (*Power* & *Legitimacy*)	Raise awareness through product usage education and emphasise long-term value	Create engaged circular customer segments
Regulators	Inconsistent and unclear policies, too many extensive regulations	**Definitive** (*Power*, *Legitimacy* & *Urgency*)	Policy engagement across key regional markets, advocating for standardised circular frameworks	Co-create and develop standardised frameworks and incentives
Internal Management	High awareness, limited external alignment	**Definitive** (*Power*, *Legitimacy* & *Urgency*)	Leverage internal influence to drive stakeholder alignment	Sustain strategic and effective integration of RL

Table 2: *Stakeholder Salience Table (Authors' own illustration).*

An important insight is therefore gathered here because RL systems remain fragmented and inefficient across GVCs, namely, it is not top managerial misalignment but stakeholder dynamics that explain current inefficiencies to globalise and standardise RL practices for MNCs.

5.2.2 Strategic Implications: Rethinking the I-R Framework Through External Pressures

As such, the global scalability of RL will not be fulfilled without improving the salience of external stakeholders. Nonetheless, there is still a strategic challenge for MNCs, how global integration can be achieved when local responsiveness is influenced externally, rather than selected internally. This strategic challenge is evident in the empirical evidence, where MNCs face inefficient business initiatives due to externally influenced responsiveness and their inability to implement globally integrated strategies due to low or weak local responsiveness. To balance this tension, MNCs require a differentiation in strategies based on the different salience types of stakeholders (Mitchell et al., 1997:874-877; Wood et al., 2021:58). Therefore, this thesis suggests that MNCs should engage with stakeholders proactively to collaborate in unison, to create local strategies and objectives to found strong stakeholder alignment, RL efficiency, and long-term profitability to enhance future scalability.

Regulators, for example, often possess power and legitimacy but lack urgency, need lobbying and KPIs that are designed together to align incentives. This is to create awareness of activating regulations that mitigate short-term risks and ensure long-term effectiveness. In markets where exports of used components and parts are banned, MNCs are forced to participate in fragmented RL systems because of poor local regulations that do not allow the introduction of a standardised approach. On the other hand, suppliers and customers, especially in less developed countries with limited knowledge about circularity, must engage in targeted awareness campaigns that underscore the long-term profitability of RL and the long-term costs of not adapting to RL systems. Therefore, RL will continue to be misunderstood as a tactic to gain a good reputation or an ineffective business operation if there is no stakeholder education present. Awareness campaigns are thus instruments to enhance knowledge about RL initiatives with suppliers and customers with a focus on cost saving, quality, and environment to actively shape stakeholder salience and increase the strategic priority of RL.

In the meantime, the I-R framework needs reinterpretation, rather than assuming that global standardisation is always desirable, MNCs should seek, in a hybrid approach, under what conditions localised RL systems may be more effective or resilient. In business environments with the presence of standardised KPIs and objectives, but with localised operationalisation, results might be better than pure strict global strategies. However, it should be noted that there is a great divergence between local markets on a global scale – where a certain market has an occupied set of attributes and characteristics that are linked to the demand and societal infrastructure that is alien to other markets – highlighting the need for a strategic balance when operating in over 100 countries. Even though the implicit meaning of the I-R framework is that local responsiveness, together with global integration, is a deliberate strategic choice by top management, empirical findings suggest that RL strategies are externally driven by stakeholder salience differences. As a result, local responsiveness is not a proactive decision but a reactive necessity in a dynamic business environment.

From a theoretical perspective, these findings nuance the conventional view of global vs. local dilemma. The empirical data implies that external stakeholders, rather than visions from headquarters or internal managers, are more often the key factor in how to achieve this strategic balance, despite literature (Rosenzweig, 2006:36; Spender & Grevesen, 1999:69) highlighting the need for a balance between global integration and local responsiveness. Therefore, stakeholder salience complements the I-R framework by underscoring why specific local adaptations are imperative and what external stakeholders need to be involved and engaged in making a shift in favour of global integration.

6. Conclusion

6.1 Summary of Key Findings

This thesis set out to investigate the evolving barriers and enablers of RL adoption, implementation and global scaling in MNCs navigating the transition toward CE models. Anchored in organisational change theory, the stakeholder theory, and global integration local responsiveness framework, the thesis analysed how globally operating firms manage the complexity of embedding RL across diverse institutional contexts. As such, the thesis makes two central contributions to the academic literature on CE and RL implementation in MNCs.

First, contrary to earlier research that emphasise top management awareness, engagement and commitment as the primary internal barrier to CE and RL initiatives adoption, the findings of this thesis reveal a shift: not only are visions clearly defined, strongly endorsed and explicitly reaffirmed by top leadership whose engagement, commitment and communication as consistent, long-term focused, and strategically anchored, but this has become a basic prerequisite that's expected and institutionalised, rather than a critical barrier or competitive edge. However, as interviews with top-level executives and managers from seven leading vehicle industry MNCs headquartered in five different countries revealed, top management's strategic intent is hindered by the absence of enabling operational structures and misalignment between global ambition and local institutional realities.

By combining Lewin's three-phase model (1947:34) and Kotter's change framework (1995:57), the study identifies a new point of friction in the change process: the liminal space between "changing" and "refreezing", where organisational change is initiated but not yet institutionalised. Specifically, implementation of sustainability and circularity initiatives in MNCs, such as RL, often stalls in the "anchoring" phase due to weak internal performance indicators, lack of accountability, and ineffective monitoring processes. Thus, this study suggests that only psychological readiness and vision are no longer sufficient, the absence of critical enabling structures to operationalise it creates a bottleneck. Ultimately, making commitment largely symbolic than systematically enacted, in turn preventing

potential from realising. As such, the study reframes the sustainability and circularity transformation challenge, from one of awareness and commitment to one of anchoring, and calls for future research to reorient its focus accordingly. In doing so, it contributes to a deepened understanding of the barriers, tensions and trade-offs mature MNCs face when engaging with systemic change in IB.

At the same time, the ability of MNCs to globally scale their RL strategies is severely constrained by institutional heterogeneity. By refining Mitchell et al. (1997) stakeholder salience model, the empirical evidence demonstrates that RL initiative scaling is not only internally driven but also is highly contingent on external negotiations with several key actors. As such, whilst many of the interviewed MNCs aim to implement standardised RL strategies, they must simultaneously tailor practices to satisfy varied national regulations, infrastructure maturity, and cultural expectations. Consequently, this complexity, as underscored by the findings of this thesis, challenges the feasibility of global RL standardisation and advances the I-R framework (Healey, 2018; Roth & Morrison, 1990) by showing that its regulatory divergence across host countries, and not internal organisational readiness and commitment, that currently acts as the primary constraint to global RL scalability for MNCs in IB.

In answering the two central research questions of this thesis:

> *What internal managerial drivers enable the successful adoption, scaling, and integration of reverse logistics within MNCs' global value chains?*
>
> *How do MNCs reconcile global strategic intent with local operational realities when scaling reverse logistics initiatives?*

It's concluded that awareness and commitment is no longer the issue for MNCs. Execution is. MNCs today are not hindered by ignorance nor intent, but by their ability to translate sustainability goals into measurable, communicable, scalable, and locally responsive indicators, systems and processes. Findings further underscoring the importance for MNCs of building flexible yet coherent implementation structures that allow local subsidiaries to inform and co-create, rather than merely

receive, strategic direction. Consequently, the key, concluding takeaway of this thesis is: the path to circularity through RL is no longer obstructed by lack of vision or commitment, but by the failure to effectively operationalise and localise that vision in a globally coherent way.

6.2 Practical Implications

Based on its empirical findings, this thesis contributes with several practical insights for MNCs managing the transition toward CE and RL. First, it identifies a critical shift in organisation bottlenecks for sustainability initiatives implementation, suggesting a persistent gap between strategic intent and managerial execution. Contrary to prior assumptions that executive awareness, knowledge and commitment is the primary barrier, the empirical evidence suggests that the challenge now lies downstream in operationalising that vision. Particularly, the absence of robust, standardised and transparent performance indicators for RL makes investment justification, progress monitoring and accountability creation very challenging. Consequently, MNCs today struggle with adoption, scaling, internal diffusion and efficiency of RL initiatives.

As such, MNC must move beyond rhetorical alignment and focus on creating enabling infrastructures if they are to create alignment between high-level strategic vision and operational decision-making. Specifically, they must develop and establish comprehensive, credible, comparable, and communicable performance indicators that link circular ambitions to business performance to substantiate RL's strategic and financial value, particularly its long-term cost-saving potential. Moreover, MNCs should invest in internal measurement systems to consolidate gains and prevent sustainability backsliding, as the empirical evidence highlighted. Otherwise, MNCs risk remaining in a state of liminality, where organisational change is initiated but not yet institutionalised

Secondly, when scaling RL initiatives globally, the empirical evidence suggests that MNCs must shift from viewing RL as an internally driven initiative to recognising it as an externally negotiated process. Particularly, prioritising stakeholder education, lobbying for harmonised regulation, and co-developing long-term KPIs with suppliers and customers are emphasised as critical enablers by this thesis. However, as the nature of these enablers varies significantly by region, MNCs must

abandon their one-size-fits-all RL strategies in favour of modular, regionally adaptive designs. Whilst top management should develop and outline core global standards, such as sustainability KPIs, reporting frameworks and monitoring guidelines, local subsidiaries and managers must be empowered to tailor RL processes to regional conditions.

Lastly, MNCs must institutionalise stakeholder mapping as a recurring process with continuous adaptations, and not a one-off assessment, since power, legitimacy, and urgency vary dramatically across geographies and over time. Without systematically amplifying the influence of key external stakeholders across subsidiaries and over time, internal RL efforts risk fragmentation and inefficiency. As such, MNCs should facilitate systematic feedback and learning between central leadership, local subsidiaries, and external stakeholders, as the empirical evidence underscored, continuous learning, adaptation, and responsiveness across organisational levels are critical for effective RL implementation. Not only to adjust RL initiatives dynamically and enhance implementation speed, but also to ensure local acceptance, and improve long-term performance outcomes. In conclusion, MNCs global RL ambitions can only materialise if managers accept and manage the friction between global efficiency and local legitimacy, in turn designing RL systems that are robust globally but flexible enough to be accepted and effective locally long-term.

6.3 Limitations

Whilst this study offers valuable insights into enablers and barriers of RL adoption and scaling within MNCs, several areas remain open for future exploration, which could enrich and extend the findings presented here. First, the study, based on a qualitative research design and a case centred on seven large, established MNCs in the vehicle industry headquartered in industrialised economies, offers depth within a relevant sector. Although the sector provides rich empirical ground due to its global reach and strategic exposure to circular pressures, future studies could benefit from including a wider variety of industries to fully reflect challenges and enablers in industries with less maturity or different product characteristics. Similarly, expanding the geographic scope to include emerging markets may reveal different dynamics, institutional constraints and local responsiveness challenges that MNCs face.

Secondly, the primary data collection focused on interviews with executives and top-level managers. While their insights are valuable for understanding organisational priorities and long-term goals, complementary research, involving other actors, could further enrich the thesis findings. For instance, insights from middle management and operational personnel, often directly involved in implementing RL processes, or from external actors who influence the global RL scaling, could further illustrate how reverse logistics strategies are implemented in practice.

Lastly, the thesis provides a cross-sectional view of a process that is ongoing and complex. and captures companies at different stages of maturity in their RL transition. As such, the empirical evidence may not fully reflect how internal management barriers, stakeholder urgency, or other key factors evolve over time in response to changing IB conditions, or capture the long-term outcomes or potential adjustments in MNCs approaches.

6.4 Future Research Directions

Building on the empirical evidence of this thesis, several areas offer potential for future research. First, the findings suggest a shift in both managerial priorities and organisational realities compared to earlier literature within the field. Whereas previous research emphasised top-level executive engagement, and high-level commitment as primary internal barriers to RL implementation, for many MNCs this has now become expected, institutionalised, and a prerequisite, embedded within corporate sustainability frameworks and widely expected by external stakeholders.

Thus, there is a clear need for research to move beyond just leadership commitment. Instead, the focus should shift to the technical, structural, and operational enablers of anchoring and scaling sustainability practices, which this study finds as the primary barriers hindering the ability to embed and institutionalise the change towards RL. Particularly, future research could benefit from drawing on institutional theory to better understand how sustainability- and CE-related KPIs, decision-making tools, and performance management systems are designed and institutionalised across organisational levels of MNCs operating within complex GVCs. Such an approach would offer a more nuanced understanding of how sustainability becomes “real” and effective inside MNCs, particularly under growing pressure to demonstrate measurable progress and avoid greenwashing accusations.

A related and timely research direction involves exploring how MNCs manage the tension between long-term sustainability objectives and short-term financial performance pressures. A tension that is not just a technical challenge, it is a strategic one. As expectations grow for MNCs to show measurable progress, both internally and externally, and not merely rhetorical commitment, research should focus on how MNCs balance conflicting priorities over time without reducing one goal to a sub-function of the other. Specifically, such insights could create further understanding on how MNCs navigate trade-offs between climate objectives, cost control, and operational efficiency, as well as how internal definitions of "progress" are formed, legitimised, and how it is measured.

Hence, there remains a lack of longitudinal research tracking how RL and CE strategies develop, evolve, and progress over time. This is especially important given that the transition towards CE and

RL are complex, iterative, and often involve multiple phases of change, as the empirical evidence emphasised. Notably, this thesis found that many MNCs currently operate in a state of organisational liminality with regard to RL initiatives, where organisational change is initiated but not yet institutionalised. Future research should therefore draw on process-oriented theories of organisational change to better understand how RL initiatives evolve from initial pilot projects to institutionalised practices across GVCs. Specifically, such research could reveal conditions under which CE and RL ambitions become embedded in MNCs organisational routines, and conversely, when and why such efforts stall, lose legitimacy, or are abandoned. In doing so, research could support MNCs in managing the transition towards CE principles and overcoming prolonged liminal states, thereby enhancing their capacity to implement RL initiatives more effectively over time.

Lastly, besides broadening its scope beyond large MNCs in advanced economies, future research should more clearly address the global-local dynamics and contextual heterogeneity. By expanding the scope to other industries with varying maturity, supply chain structures and regulatory environments, research can reveal overlooked internal barriers, capacity constraints and adaptation challenges. Particularly if research broadens its focus by including SMEs and companies in developing economies. By drawing on stakeholder theory and the I-R framework, research could offer tools for analysing how MNCs adapt RL and CE practices to local constraints and opportunities. Moreover, such attention on contextual heterogeneity could not only improve the generalisability of existing frameworks but also uncover underexplored internal barriers and capacity limitations.

As such, by pursuing these lines of inquiry, future research can make important theoretical and practical contributions. Contributions that not only can enhance how CE commitments and RL initiatives are translated into credible and effective action within MNCs and evolve over time, but also inform both policy and managerial efforts to institutionalise circularity and RL practices in GVCs.

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Appendix 1: Summary of Barriers Stemming from Internal Management-Related Challenges

The proposed summarising table, providing an overview of all interconnected barriers to RL implementation in MNCs that stem from internal management-related challenges.

Factor	Barriers	Description	Subfactors	References
Economic	- High initial investment costs - Low initial ROI	By increasing costs, economic uncertainty and financial risk, these barrier influence managerial decision-making as RL initiatives appear unprofitable and uncertain, in turn leading to deprioritisation compared to other investments	- Low initial ROI - Lack of financial incentives - Economic uncertainty and risk in early-stage RL implementation - Short term profitability over Long term investments	Dutta et al. (2021:3); González‐Torre (2020:890); Mallick et al. (2023:8); Sonar et al. (2022:3638)
Communication, Coordination, and Control Mechanisms	- Misaligned Incentives and Stakeholder Reluctance	Conflicting incentives among supply chain actors impede collaboration, leading to weak commitment.	- Split incentives - Lack of clear contractual agreements	Ambekar (2021:289) Glöser-Chahoud et al. (2021:6); Dutta et al. (2023:3); Sonar et al. (2022:3636)
	-Weak Supply Chain Collaboration, Coordination, and Commitment	Fragmented supply chains and poor coordination lead to operational delays and increased costs, undermining the efficiency of RL processes.	-Lack of centralised management systems - Low supplier commitment - Inadequate coordination mechanisms -Absence of uniform benchmarks	Kaviani et al. (2020:3) Li et al. (2020:3); Dutta et al. (2023:3); Makarova et al. (2021:134); Can Saglam et al. (2023: 1167)
	- Monitoring and Measurement Challenges	Significant difficulties in monitoring, evaluating performance and identifying inefficiencies lack of standardised metrics and evaluation frameworks, thus limiting strategic and operational decision-making.	- Undefined KPIs - External Communicating Challenges - Internal Justification Difficulties	Alkahtani et al. (2022:11;15); Mallick et al. (2022:7); Sonar et al. (2022:3637)

Strategic Leadership Alignment	- Lack of Awareness, Knowledge, and Strategic Vision	RL is seen as a cost burden, rather than a strategic opportunity due to insufficient managerial awareness and knowledge about RL's benefits, thus preventing MNCs from realising potential cost savings and competitive advantages.	- Inadequate managerial awareness - Rigid corporate policies and bureaucratic inertia - Limited investment in RL R&D	Sonar et al. (2022:3685); Ambekar et al. (2021:2878, 2893); Dutta et al. (2023:3); Kaviani et al. (2020:2, 13); Mallick et al. (2023:9);
	- Lack of Top Management Commitment	The absence of strong commitment from top management results in fragmented, underfunded RL initiatives.	- Low top leadership engagement - Insufficient resource allocation - Short-term focus over long-term sustainability - Negative Ripple Effect across the organisation	Sonar et al. (2022:3637) ; Dutta et al. (2023:3); González-Torre et al. (2020:892); de Campos et al. (2021:14166); Prajapati et al. (2021:199); Moktadir et al. (2020:720);
	- Linear Legacy Thinking and Risk Aversion	A deep-seated reluctance to modify established linear business models, driven by uncertainty over financial returns and operational risks	- ROI Uncertainty - Operational risk concerns - Reluctance to shift from traditional practices - Inadequate standardisation and performance measurement	Ambekar et al. (2021:2878); Moktadir et al. (2020:720); González-Torre et al. (2020:891); Sonar et al. (2022:363); Kaviani et al. (2020:2); Govindan & Bouzon (2018: 324)

Table illustrating interconnected Internal Management Barriers to RL Implementation in MNCs (Authors' own illustration).

Appendix 2: Interview Guide

Given the study's aim to identify the key barriers and enablers for successful RL implementation, and its impact on strategic decision-making, scalability and internal diffusion related to RL in MNCs global operations, the primary data collection were delimited to fifteen senior managers and top-level executives. Individuals that were selected based on their extensive industry experience, in-depth organisational knowledge, and overarching perspective of their organisation and industry, enabling them to provide rich, contextually grounded insights aligned with the study's focus on internal managerial factors. To ensure full transparency and replicability of this study, the full original interview-guide utilised during the interviews will be presented down below.

We are Master's students in the International Business and Trade program at the School of Business, Economics and Law at the University of Gothenburg. As we are graduating later this spring, we are currently working on our Master's thesis, in which we are conducting a study on the role of top management in driving sustainability initiatives.

Our case study focuses on why reverse logistics (RL) remains underutilised and inefficient within multinational automotive companies—despite its clear environmental and economic benefits, as well as its potential to promote circularity.

We are particularly interested in internal challenges and the leadership perspective:
the awareness, knowledge levels, priorities, coordination, and strategic commitment of senior management—and how these factors influence MNCs' efforts to integrate circular processes into their global supply chains.

We are also interested in understanding what factors facilitate or hinder the development of these processes across different countries and subsidiaries.

Please note that we are not seeking technical details, but rather your perspective on how leadership, strategy, top management commitment, and organisational structures impact this work. We are particularly interested in your real-world experiences—what works, what doesn't, and the role leadership and governance play in making it happen. Feel free to use concrete examples to illustrate your points.

1. Can you describe your role and involvement in strategic decision-making related to reverse logistics, circular economy, and sustainability initiatives within your organisation?

2. How central is the circular economy and/or reverse logistics to your overall corporate strategy? Is it primarily seen as a compliance requirement, or as a strategic priority and source of competitive advantage?
    a. How is this reflected in practice, for example in communication, prioritisation etc

3. In your experience, to what extent do managers at different levels within the organisation:
    a. Understand and support sustainability and circular economy initiatives, or are there knowledge gaps that hinder implementation? And whether yes or no, what do you see as the reasons behind this?
    b. Demonstrate engagement and commitment to driving sustainability and circular initiatives? How is this reflected in practice?

4. Would you say your organisation currently has sufficient and reliable methods and KPIs in place to measure the impact of sustainability and circular economy initiatives? Or are there areas in need of further development?

5. How are sustainability and circular goals balanced with short-term business priorities such as cost-efficiency and profitability?

6. How do you collaborate with suppliers, logistics partners, and customers to promote sustainability and integrate circularity across the value chain?
    a. What role do partnerships play in advancing this work?
    b. Are there potential for improvements?

7. To what extent do your circular and reverse logistics initiatives differ across markets in terms of opportunities, processes, requirements, and goals? What are the main challenges in scaling these efforts globally—both internally and externally?

8. Which factors do you consider most critical for accelerating sustainability and circular economy initiatives within your company over the coming years?