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Beyond Reporting: The Influence of the CSRD on Control and Stakeholder Engagement

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An exploratory study on the influence of the Corporate Sustainability Reporting Directive on firms' management control systems

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Abstract

The European Union's Green Deal outlines an ambitious vision for sustainable development, marking a regulatory shift for businesses. Central to this is the Corporate Sustainability Reporting Directive (CSRD), which transforms sustainability reporting across the European Union. This directive places strict compliance demands on an increased number of companies and positions sustainability reporting as a strategic tool to enhance corporate sustainability actions. Building on management control systems literature and stakeholder engagement theory, we explore how the CSRD influences firms' management practices for sustainability and sustainability reporting. While prior research acknowledges the potential of sustainability reporting to influence management control systems, studies on this link remain limited, as does our understanding of how companies use controls to engage stakeholders in sustainability reporting. To address these theoretical gaps, we conduct a qualitative study interviewing 22 large Swedish companies preparing for the CSRD. Using Malmi and Brown's (2008) management control systems as a package, we find that the CSRD affects management control systems across all firms, most notably in administrative controls, with limited influence on reward and compensation. Moreover, by adopting Morsing and Schultz's (2006) stakeholder engagement strategies and combining them with Malmi and Brown's (2008) package of controls, we find that companies use different packages of controls to employ these strategies toward different stakeholders for different purposes.

Keywords: sustainability reporting, management control systems, corporate sustainability reporting directive (CSRD), stakeholder engagement

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Definitions

Term	*Definition*
Sustainability Reporting (SR)	The process of measuring, disclosing, and being accountable to internal and external stakeholders for organizational performance toward the goal of sustainable development (Borglund et al., 2021).
Corporate Sustainability Reporting Directive (CSRD)	The European Union's new sustainability reporting directive, put into force in 2024 (European Commission, n.d.).
European Sustainability Reporting Standards (ESRS)	A new, standardized reporting framework for sustainability reporting that companies subject to the CSRD must follow (European Commission, n.d.).
Double Materiality	Consists of impact and financial materiality. Impact materiality addresses an organization's sustainability effects on people and the environment, while financial materiality focuses on sustainability issues that affect the organization financially (EFRAG, 2024).
Management Control Systems (MCS)	All the devices and systems management put in place to direct employee behavior, such as rules, practices, values, and other activities (Malmi & Brown, 2008, p. 290).
Sustainability Control Systems (SCS)	Management control systems for influencing behavior and decision-making within sustainability (Gond et al., 2012).
Stakeholder Engagement	Communication, consultation, dialogue, and exchange (Greenwood, 2007), to establish and maintain stakeholder relationships (O'Riordan & Fairbrass, 2014).

1. Introduction

1.1. Background

In a world where corporate responsibility increasingly shapes business success, sustainability reporting (SR) has emerged as a critical lens through which firms are judged - not just by their financials, but also by their impact on the planet and society. Having formerly been entirely voluntary, regulators are now increasing pressure on a great number of companies to disclose sustainability issues (Borglund et al., 2021). Under the Non-Financial Reporting Directive (NFRD), effective in 2014, only large companies with over 500 employees were mandated to engage in non-financial reporting, impacting around 12,000 businesses (KPMG, n.d.). However, this directive has been criticized for several shortcomings such as a lack of comparability, reliability, and relevance of non-financial information provided (European Parliament, 2021).

To enhance comparability and increase transparency, the European Union (EU) introduced the Corporate Sustainability Reporting Directive (CSRD) in 2021 (EFRAG, n.d.). Put into force in 2024, this more ambitious directive amends the NFRD and significantly expands the existing requirements for SR in the EU (KPMG, 2023). Besides impacting the scope, volume, and granularity of sustainability-related information to be collected and disclosed by companies, the CSRD increases the number of EU companies required to publish sustainability reports. Notably, the new directive is expected to cover around 50,000 European companies, more than four times as its predecessor. However, its implementation is phased, allowing firms to adapt at different stages depending on company-specific factors (KPMG, 2023).

Against this background, the demand for ‘green skills’ among companies has exploded in the last few years, reflecting the challenges organizations face in adapting to the CSRD (Fauvelle, 2024). While compliance is undoubtedly important, the core part lies in ensuring SR does not become a simple tick-box exercise. Besides enhancing transparency, top-down regulation implemented by policymakers aims to drive sustainable change (Bergmann & Posch, 2018). The CSRD’s requirements, specified in the European Sustainability Reporting Standards (ESRS), have clear implications for management, as shown by its references to policies, strategy, and governance (Hristov & Searcy, 2024). The directive brings forward new dimensions in SR by introducing the concept of double materiality and expanding firms’

reporting boundaries across their value chains (Hummel & Jobst, 2024). By setting these requirements, the CSRD challenges companies to implement specific sustainability activities and embrace a sustainable approach to doing business, ultimately resulting in a sustainability report (Hristov & Searcy, 2024).

However, those skeptical of SR have pointed out that some companies report only to manage negative publicity (Arvidsson, 2010). Institutional quality has been identified as a significant factor in shaping organizational responsibility and behaviors to oppose such greenwashing behavior (Wijethilake & Ekanayake, 2018). In this context, the CSRD, with its focus on enhancing transparency, could help mitigate greenwashing. Nevertheless, researchers suggest that the successful implementation of sustainability requires comprehensive management control systems (MCS) to embed sustainability into an organization's core operations (Gond et al., 2012; Battaglia et al., 2016; Crutzen et al., 2017). MCS ensure that corporate actions align with stated goals by guiding decision-making and establishing clear accountability, performance measurement, and governance structures (Otley, 1980; Malmi & Brown, 2008). For firms to realize the benefits of SR, they must integrate it into their MCS (Battaglia et al., 2016).

The existing research on SR, MCS, and stakeholder engagement reveals several limitations and gaps that warrant further study. Although there is a growing recognition of the role SR can play in supporting managerial decision-making (Chiucchi et al., 2018), the interplay between SR and MCS has not been extensively researched to date. Studies tend to focus on MCS for sustainability in general, overlooking the influence of the sustainability report on internal management processes (de Villiers et al., 2016; Maas et al., 2016; Traxler et al., 2020). To advance our understanding of how the CSRD influences firms' sustainability management practices, exploring its influence on companies' MCS is crucial. Moreover, although effective stakeholder engagement is a crucial element of both successful SR and sustainability integration (Battaglia et al., 2016), our current understanding of how internal processes enable joint decision-making with stakeholders and how MCS are used for stakeholder engagement in the context of SR is limited (Herremans et al., 2016; Yeh et al., 2024). As the CSRD expands a company's reporting boundary to include the value chain, it requires a multi-stakeholder approach (Hummel & Jobst, 2024). This presents a timely opportunity to investigate how companies engage with suppliers and customers in their SR process.

1.2. Purpose & Expected Contribution

With this study, we aim to explore the influence of the new requirements under the CSRD on management and control practices in two ways. Firstly, we aim to investigate how the directive influences companies' MCS. Secondly, we aim to understand how the CSRD influences how companies use MCS to practice stakeholder engagement, primarily focusing on the interaction with suppliers and customers. Since there is no clear path for how organizations should adjust the scope and focus of their MCS to involve stakeholders (Rahi et al., 2022), the call made by Traxler et al. (2020) for further empirical research on the influence of SR on specific MCS elements becomes increasingly relevant, particularly with the introduction of the CSRD and its emphasis on the value chain. By exploring the new dynamics of the CSRD, we expect to theoretically contribute to how SR influences MCS and how MCS are used to enable stakeholder engagement in the context of the CSRD. From a practical point of view, we expect to bring insights into how managers implementing the CSRD use controls to enable SR and simultaneously control employees to engage with suppliers and customers.

1.3. Research Questions

To fulfill the stated purpose of this study, two research questions are formulated:

RQ 1: How does the CSRD influence firms' management control systems?

RQ 2: How do firms engage stakeholders using management control systems following the CSRD?

1.4. Delimitations

To realize the purpose of this study, we have made several delimitations. Firstly, we decided to delimit the study to Sweden because the CSRD must be transposed into national laws, resulting in potential between-country differences. Sweden adopted the CSRD in 2024, requiring large companies to implement the CSRD in 2025. Followingly, we have delimited the study to large companies that are currently preparing for the introduction of the CSRD. Lastly, to examine how firms use MCS to engage with stakeholders following the CSRD, we decided to delimit our study to two types of stakeholders, namely suppliers and customers, as the CSRD requires targeted companies to carry out both upstream and downstream value chain analyses.

2. Literature Review and Theory

The following chapter reviews the literature on sustainability reporting (2.1), management control systems and sustainability (2.2), and stakeholder engagement (2.3). The research gap is described (2.4) before elaborating on the theory (2.5).

2.1. Sustainability Reporting

Companies have been publishing sustainability reports since the turn of the millennium (Borglund et al., 2021). Research in this field has centered around social and environmental reporting, as well as disclosure initiatives and their connections to other performance attributes, such as economic or financial outcomes (Riccaboni et al., 2010). The motives for publishing sustainability reports range from maintaining or (re-)gaining legitimacy, differentiating from competitors, or simply fulfilling legal requirements (Traxler et al., 2023). However, prior research shows that a higher degree of non-financial information disclosure improves stakeholders' and investors' assessment of the company (Cho et al., 2020) and that mandatory SR leads to new processes that enhance relations with external stakeholders (Aureli et al., 2020).

A few studies also address how SR can play a role in managing corporate sustainability performance (Pérez-López et al., 2015; Maas et al., 2016). Corporate sustainability performance refers to a firm's performance on environmental, social, and governance (ESG) factors (Eccles & Serafeim, 2013). While the sustainability report can be viewed as the information disclosure on firms' sustainability performance, the reporting process encompasses much more than just the report (Traxler et al., 2023). By conveying information on sustainability performance, SR can also fulfill internal information needs, thereby serving as a foundation for decision-making and consequently contributing to improving corporate sustainability performance (Maas et al., 2016). Information obtained from the sustainability report can be used to stimulate dialogue around, for example, resource use and emission reduction. The reporting process can also help create sustainability awareness and anchor sustainability in the corporate culture (Eccles & Serafeim, 2013; Maas et al., 2016). Therefore, as An (2023) argues, the measurement and disclosure of sustainability performance are fundamental in business management.

However, others criticize SR for being costly to implement and subject to image enhancement (Borglund et al., 2021). For instance, Caputo et al. (2021) discover that

companies hesitate to disclose sustainability information that may negatively impact the firm and stakeholders' perceptions of it. Legitimacy theory has thus been frequently employed to study voluntary SR, suggesting that companies provide sustainability information to gain, uphold, or restore legitimacy (O'Donovan, 2002). Such reporting practices are closely linked to greenwashing, characterized by publishing positive information to hide negative actions (Christensen et al., 2021). Concerns about greenwashing have prompted stakeholders to demand more robust frameworks for SR, accelerating the development of new reporting standards (Rahi et al., 2022). Reporting standards determine what data to report and specify requirements on the type of information to be disclosed. To name a few, the Sustainability Accounting Standard Board (SASB) develops industry-specific standards on financial material ESG topics (Christensen et al., 2021). Similarly, the Global Reporting Initiative (GRI), which has been seen as the dominating framework for SR, establishes global standards to assist companies in communicating their impact on critical sustainability issues (Borglund et al., 2021; Christensen et al., 2021). Although establishing standards for reporting is *"not a silver bullet guaranteed to result in a net zero world by 2050, it is a critical part of the solution as businesses can only manage what they measure"* (An, 2023, p. 905).

With the introduction of the CSRD, the newest player to join the scene is the European Financial Reporting Advisory Group (EFRAG), which develops European Sustainability Reporting Standards (ESRS) for the European Commission (European Commission, n.d.). These standards apply to all companies subject to the CSRD regardless of which sector they operate in (European Commission, n.d.). The CSRD replaces the previous NFRD, which faced criticism for its lack of comparability, consistency, and reliability of the information it required, as well as for the limited number of companies that were subject to it (Hummel & Jobst, 2024). The main changes from the NFRD to the CSRD include a broader range of companies covered, extended reporting obligations across the company's value chain, and clearer specifications on double materiality and report contents. Additionally, the CSRD introduces requirements for integrating sustainability information into management reports and the assurance and digital tagging of reported data (Hummel & Jobst, 2024).

Broadly speaking, the mentioned standards and regulations vary in their motivations, spanning a spectrum from narrow to broad. The narrow approach primarily focuses on meeting investors' needs, while the broader addresses all stakeholders, aiming to drive transformative change with SR (Christensen et al., 2021). The CSRD represents a broad approach since it requires companies to report on both impact and financial materiality

(Christensen et al., 2021). Impact materiality focuses on a company's impact on society and the environment, whereas financial materiality considers how sustainability issues affect the company. A company's materiality assessment is *"informed by dialogue with affected stakeholders [...] to provide inputs or feedback on its conclusions regarding its material impacts, risks and opportunities"* (EFRAG, 2024). Furthermore, by following the double materiality principle, companies must report *"information on the material impacts, risks and opportunities connected with the undertaking through its direct and indirect business relationships in the upstream and/or downstream value chain"* (EFRAG, 2024). This highlights how the CSRD encourages companies to involve external stakeholders actively, potentially influencing strategic decisions and expanding accountability across the value chain.

Although companies may show commitment to stakeholder engagement in their materiality analyses, the underlying processes of how companies determine materiality often lack transparency (Beske et al., 2020). This lack of transparency raises concerns about potential manipulation and the strategic selection of topics to present a more favorable image. Moreover, many fail to meet the ESRS guidelines on double materiality (Correa-Mejía et al., 2024). Their study of early adopters of the CSRD reveals that 51 out of 76 European companies that claim to apply double materiality fail to disclose both material impact and financial topics. Thus, they can be considered 'label adopters', raising concerns about CSRD compliance and sustainable development efforts (Correa-Mejía et al., 2024). Label adoption not only hampers the usability of sustainability reports for users such as investors and other stakeholders but also underscores a discrepancy between companies' reporting and their actual actions (Correa-Mejìa et al., 2024).

2.2. Management Control Systems and Sustainability

Within the context of sustainability, multiple studies have used MCS to study organizational responses to sustainability pressures. Frostenson and Johnstone (2023) argue that external pressures alone cannot create the accountability required for sustainability to be considered in decision-making processes; rather, it must be established within the firm through controls. Studies in this field generally explore how organizations can use MCS to integrate sustainability into strategic decision-making processes (Riccaboni et al., 2010; Gond et al., 2012) and assist in compliance with evolving regulatory demands for SR (Traxler et al., 2023).

How MCS are defined in prior research differs in the width of what the systems include as well as the focus of the controls. Nowadays, it is widely accepted that MCS encompasses strategic and operational practices that steer, influence, and monitor the behavior of organizational members to align the different interests within, and beyond, the organization toward a common objective (Pfister et al., 2023). In this study, we view MCS similarly to Ferreira and Otley (2009, p. 264) as entailing practices that relate to *"the evolving formal and informal mechanisms, processes, systems, and networks used by organizations for conveying the key objectives and goals elicited by management, for assisting the strategic process and ongoing management through analysis, planning, measurement, control, rewarding, and broadly managing performance, and for supporting and facilitating organizational learning and change"*.

Multiple variations of MCS include specific controls for managing sustainability, called sustainability control systems (SCS). Such controls are designed to influence decision-making within sustainability (Gond et al., 2012; Bebbington & Thomson, 2013), by connecting strategies with operations to achieve sustainability performance and reporting outcomes (Johnstone, 2019). Literature suggests that MCS play a major role in orienting an organization towards sustainability by ensuring that decisions and actions are consistent with the organization's sustainability objectives and strategies (Crutzen et al., 2017). Thus, emphasis has been placed on the significance of integrating and studying specific SCS alongside traditional MCS. This integration ensures that business operations are aligned with sustainability objectives, fostering a more comprehensive approach to managing both financial and sustainability concerns (Henri & Journeault, 2010; Buhr et al., 2011; Schaltegger, 2011). In fact, if SCS are used as 'autonomous tools' without informing a company's conventional MCS, they may *"remain peripheral and decoupled from core business activities and fail to reshape strategy"* (Gond et al., 2012, p. 206).

Consequently, various studies have investigated how organizations can use MCS to integrate sustainability into organizational strategy and decision-making (Riccaboni et al., 2010; Gond et al., 2012; Crutzen et al., 2017). For instance, Riccaboni et al. (2010) empirically demonstrate how MCS can facilitate sustainability integration by translating a sustainability-oriented strategy into concrete actions. Similarly, Arjaliès and Mundy (2013) conduct a survey of 36 large French companies, examining how they use MCS to manage sustainability and find that the management of sustainability has the potential to facilitate organizational change through processes that enable innovation, communication, reporting,

and the identification of threats and opportunities. Consequently, even companies engaged in sustainability mainly for compliance or legitimacy purposes can experience changes in their organizational practices (Arjaliès & Mundy, 2013). However, the survey-based design limits the authors' ability to provide an in-depth understanding of how these companies use MCS to manage sustainability.

Moreover, Gond et al. (2012) highlight that integrating sustainability within organizational strategy is not straightforward, since it requires aligning several interrelated technical, organizational, and cognitive aspects, as well as the diagnostic and interactive use of MCS. Battaglia et al. (2016) adopt Gond's (2012) configurations to conduct a longitudinal study on sustainability integration using MCS. The authors focus on three types of MCS for sustainability, where a sustainability report is one, and find that when the case company transformed its prior, less formal 'social report' into a 'sustainability report' following the GRI, sustainability integration increased. In this context, mandatory reporting can be seen as an antecedent of sustainability integration into strategy. However, Battaglia et al. (2016) highlight that merely using MCS diagnostically as a way to identify critical deviations from plans does not ensure high integration of sustainability. Rather, it is the interactive use of MCS - emphasizing feedback, adaptation, and learning - that fosters both organizational and cognitive integration, driving the changes needed to embed sustainability fully into strategy.

Similarly, Crutzen et al. (2017) explain the extent of sustainability integration by distinguishing between formal and informal controls. Using Malmi and Brown's (2008) framework to study 17 large European companies, the authors find that firms with more developed control packages tend to focus on either formal or informal controls, resulting in none of the companies having achieved a completely developed MCS package with both formal and informal controls. In their paper, Crutzen et al. (2017) further highlight the low number of companies that have complete formal control packages, despite being subject to social and environmental legislation and standards, calling for further research into whether there is a mismatch between the external perception of sustainability performance and internal performance management quality.

Apart from studies investigating the role of MCS in general corporate social responsibility activities or strategy, a few studies have attempted to investigate the linkage between MCS and SR (Kerr et al., 2015; de Villiers et al., 2016; Herremans & Nazari, 2016; Traxler et al., 2023). MCS are crucial for enabling SR, since managers need accurate information to report

and make decisions that lead the organization toward integrating sustainability (Laine et al., 2022). Still, scholars' opinions diverge on whether SR and MCS should be mixed into the same frameworks. Some argue that linking SR and MCS risks directing management focus from the sustainability practice (Johnson & Kaplan, 1987). In contrast, others argue that SR is a mirror of managerial decision-making and control processes, suggesting that companies must embed sustainability data into their internal decision-making and not only integrate it into sustainability reports (Bebbington et al., 2007). Despite these mixed views, there is a growing consensus that companies facing increasing demands for transparency must demonstrate a genuine commitment to sustainability by embedding these values into core operations to avoid greenwashing (Rahi et al., 2022).

While it is becoming widely agreed that connecting reporting and control is needed for progress toward corporate sustainability, studies investigating the interplay of the two are still at an early stage (Traxler et al., 2020). Kerr et al. (2015), conducting one of the first case studies examining the integration of SR into MCS, argue that prior research has overlooked the role of MCS in SR and instead focused on the role of MCS in general corporate social responsibility activities. The authors find that incorporating SR into MCS offers several benefits for organizations, including operationalizing sustainability objectives, broadening stakeholder accountability, and enhancing interactions with stakeholders (Kerr et al., 2015). Conclusively, they call for further research on whether organizations will integrate SR into their existing MCS once reporting becomes standard practice. Similarly, Traxler et al. (2023) argue that linking MCS and SR can bring great benefits by transforming the SR practice into a tool for organizational improvement. In contrast to the social-political perspective, which suggests a loose linkage of SR and MCS, reflecting the belief that SR is solely used for accountability purposes, the authors adopt an instrumental perspective and explore how organizations can use SR as a management tool (Traxler et al., 2023). By interviewing 20 firm representatives involved in the SR practice at each firm, they find various opportunities for linkages in both informal and formal control systems.

Moreover, through a structured literature review of 45 articles on SR and MCS, Rahi et al. (2022) find that practitioners handle SR as legitimacy and MCS as an internal perspective, while SR is meant to reflect internal governance, targeting the public. Implementing a sustainability report requires the organization to foster an open dialogue that holistically considers the company's performance, making the report a central platform for meaningful stakeholder engagement (Eccles & Serafeim, 2013). As such, stakeholder engagement is

crucial not only for meeting reporting requirements but also for engaging in discussions about the company's mission, values, and management systems (Reynolds & Yuthas, 2008).

2.3. Stakeholder Engagement

Stakeholder theory introduced the idea that firms must go beyond focusing on shareholders' interests to also include stakeholders' interests in value creation (Freeman, 1984). Freeman (1984, p. 25) defines stakeholders as *"any group or individual who can affect or is affected by the achievement of the firm's objectives"*. Based on Freeman's (1984) theory, the concept of stakeholder management has emerged, which is seen as a prerequisite for linking sustainability and a company's main business (Nishitani et al., 2021). Nowadays, stakeholder thinking has evolved into the study of *"interactive, mutually engaged and responsive relationships that establish the very context of doing modern business, and create the groundwork for transparency and accountability"* (Andriof et al., 2017, p. 9). Thus, stakeholder theory has shifted from focusing on managing stakeholders to managing relationships with stakeholders (Morsing & Schultz, 2006). To manage these relationships, managers use activities to interact with stakeholders, which essentially implies the concept of stakeholder engagement (Greenwood, 2007). Stakeholder engagement entails communication, consultation, dialogue, and exchange (Greenwood, 2007), to establish and maintain stakeholder relationships (O'Riordan & Fairbrass, 2014). Within these relationships, stakeholder engagement functions as a mechanism of consent, control, cooperation, accountability, and employee involvement, as well as for strengthening or replacing trust (Greenwood, 2007).

Sloan (2009) examines stakeholder engagement in global corporations and contrasts a control-oriented approach focused on managing risk and a collaborative approach based on partnership and shared learning. The author argues that companies traditionally have practiced stakeholder engagement mainly as a risk management exercise (Sloan, 2009). However, for organizations to realize sustainability benefits from stakeholder engagement, modern companies should instead view stakeholder relationships as an opportunity for more collaborative approaches, and make stakeholder engagement a part of strategic decision-making (Sloan, 2009). Other studies have taken a broader approach to stakeholder engagement and classified it on a continuum ranging from limited to extensive engagement (Bowen et al., 2010). Through a structured literature review, Bowen et al. (2010) analyze 200 papers on how companies engage with communities and cluster their findings into three

engagement strategies: i) transactional, ii) transitional, and iii) transformational, and find that companies applying the transactional or transitional strategy mainly gain increased legitimacy. To reap the benefits of co-ownership of problems and accountability, companies must use the transformational strategy, characterized by mutual influence (Bowen et al., 2010).

As already highlighted, stakeholder engagement is an important part of SR (Reynolds & Yuthas, 2008; Eccles & Serafeim, 2013; Beske et al., 2020). Manetti (2011) studies the quality of stakeholder engagement in the SR process to investigate how stakeholder engagement impacts materiality assessments and information collection. The author finds that stakeholder engagement is not fully utilized; rather, stakeholder management is present for establishing legitimacy (Manetti, 2011), which is similar to Bowen et al.'s (2010) lower levels of engagement strategies. However, Greco et al. (2015) find that when SR matures in an organization, it changes into a tool for developing policies in which stakeholders participate, suggesting that SR can be a trigger for more collaborative approaches to stakeholder engagement. Herremans et al. (2016) adopt a version of Bowen et al.'s (2010) three stakeholder engagement strategies developed by Morsing and Schultz (2006) to study how companies practice stakeholder engagement in their SR depending on their dependencies on specific stakeholders. They investigate how the three engagement strategies, defined as i) informing, ii) responding, and iii) involving, are practiced by organizations in their SR. The authors find that companies' choice of stakeholder engagement strategies depend on the characteristics and relationships with specific stakeholders and suggest that future research attempts to understand the internal processes companies undertake to engage stakeholders (Herremans et al., 2016).

Similarly, Stocker et al. (2020) build on the framework by Morsing and Schultz (2006) and study 119 sustainability reports to investigate which type of stakeholder engagement is used by the companies behind those reports. While the involvement strategy has the highest potential for fostering beneficial collaboration, companies concentrate their efforts on practicing the information and response strategies in their SR (Stocker et al., 2020). The authors call for future research in other areas that could influence the choice of stakeholder engagement strategies, such as companies' supply chains.

While the need for firms to engage with suppliers and customers to improve their sustainability performance has been widely acknowledged, gaps exist in what is currently

known about whether and how firms engage with their supply chain actors (Dahlmann & Roehrich, 2019). Engaging with supply chain partners is essential for companies to address the challenges posed by information asymmetries related to climate change (Dahlmann & Roehrich, 2019). In their study, they draw on secondary data from the Carbon Disclosure Project consisting of firms' disclosures of supply chain engagement and find three types of engagement approaches: i) basic, ii) transactional, and iii) collaborative. Basic engagement is focused on setting a baseline of Scope 3 performance towards suppliers and responding to GHG data demands from customers. Moreover, transactional engagement is focused on Scope 3 improvements using the data gathered from suppliers and customers. Lastly, collaborative engagement aims to shape shared beliefs and develop strategic sustainability initiatives together with suppliers and customers. While each type of engagement provides a foundation for further engagement, the authors find that firms can employ different strategies simultaneously toward different suppliers and customers (Dahlmann & Roehrich, 2019).

Despite the importance of stakeholder engagement for both sustainability and SR, the question remains of how firms can ensure that these reports are effectively used to foster productive discussions with external stakeholders. While prior literature is limited on the interplay between stakeholder engagement and MCS, a few studies have suggested a connection. For instance, Chenhall (2003) highlights how MCS are not solely internal but also need to include contextual factors, such as stakeholders. In a similar vein, Battaglia et al. (2016) encourage further research into the external dimension of MCS for sustainability, such as how stakeholders' needs are considered and implemented through MCS.

A few studies have also considered different organizational factors that influence stakeholder engagement. For instance, Rodrigue et al. (2013) explore how stakeholders influence managers' choice of environmental performance indicators (EPI). Through a single-case study of a large sustainability-focused firm, they find that stakeholders shape EPI through the company's belief system focused on the importance of external inputs. Similarly, Boesso and Kumar (2016) investigate how an organization's stakeholder culture influences how managers prioritize stakeholders and respond to external stakeholder groups. Stakeholder culture, relating to an organization's values, beliefs, and norms, centers on how an organization approaches relationships with various stakeholders. Their findings suggest that stakeholder culture influences what type of stakeholder engagement activities firms pursue (Boesso & Kumar, 2016). As such, they argue that future research should consider organizational-level factors to understand how managers engage with stakeholders.

Furthermore, Yeh et al. (2024) use Simons' (1995) levers of control to study how stakeholders affect MCS in 11 firms with 500 different suppliers. The authors perform a quantitative study and find that companies with high emissions use MCS to train their suppliers more extensively. The authors demonstrate a connection between MCS and stakeholder engagement and call for further qualitative research on stakeholder relationships in the context of SR (Yeh et al. 2024).

2.4. Synthesis and Research Gap

Based on the literature review of prior studies relevant to this paper, we can conclude that research into the processes that underpin SR, especially within the context of the CSRD, is scarce. In particular, two research gaps have been identified, which this study aims to bridge.

Turning to the first research gap, although prior research exists on both SR and MCS respectively, the interlinking of the two has not been widely researched, highlighting a gap in what is currently known about how SR influences MCS (de Villiers et al., 2016; Maas et al., 2016; Traxler et al., 2020). This can enhance our understanding of how companies use MCS to comply with SR requirements and simultaneously operationalize sustainability objectives (Kerr et al., 2015; Laine et al., 2022). Among the few early studies on the CSRD, Correa-Mejìa et al. (2024) show an interesting discrepancy between firms' stated intentions and actual practices, making research in this field particularly important. Additionally, we build on literature that encourages further examination of how internal MCS interact with firms' sustainability agendas (Gond et al., 2012; Arjaliès & Mundy, 2013).

Secondly, the introduction of the CSRD, which emphasizes reporting across the value chain, presents a timely opportunity to investigate how companies engage with suppliers and customers in their SR process. As suggested by Stocker et al. (2020), examining influences from companies' supply chains on stakeholder engagement practices could reveal valuable insights. Despite this potential, our understanding of the external dimension of MCS for sustainability remains limited (Battaglia et al., 2016). Prior research has called for studies on how internal processes enable joint decision-making with stakeholders and how MCS are used to perform stakeholder engagement in the context of SR (Herremans et al., 2016; Yeh et al., 2024).

By connecting the two research gaps, it presents an interesting area to study. Understanding how companies design their MCS when implementing the CSRD and how MCS are used to

engage stakeholders is crucial for advancing both theory and practice in the field of corporate sustainability.

2.5. Theory

To address the identified research gaps, we draw on MCS theory and stakeholder engagement theory. In the following sections, we provide an in-depth description of each theory before synthesizing them to develop the theoretical framework that will guide our analysis.

2.5.1. Management Control Systems as a Package

While multiple frameworks for MCS exist in the literature, Malmi and Brown's (2008) MCS as a package is considered the broadest framework to date (Guenther et al., 2016). It recognizes that MCS do not operate in isolation but rather as an interconnected set, and considers both formal and informal controls by differentiating between five types of controls (Crutzen et al., 2017). As such, this framework will be used to examine the influence of the CSRD on organizations' MCS. The five controls included in Malmi and Brown's framework include i) cultural controls, ii) planning controls, iii) cybernetic controls, iv) reward and compensation, and v) administrative controls. These are illustrated in Figure 1.

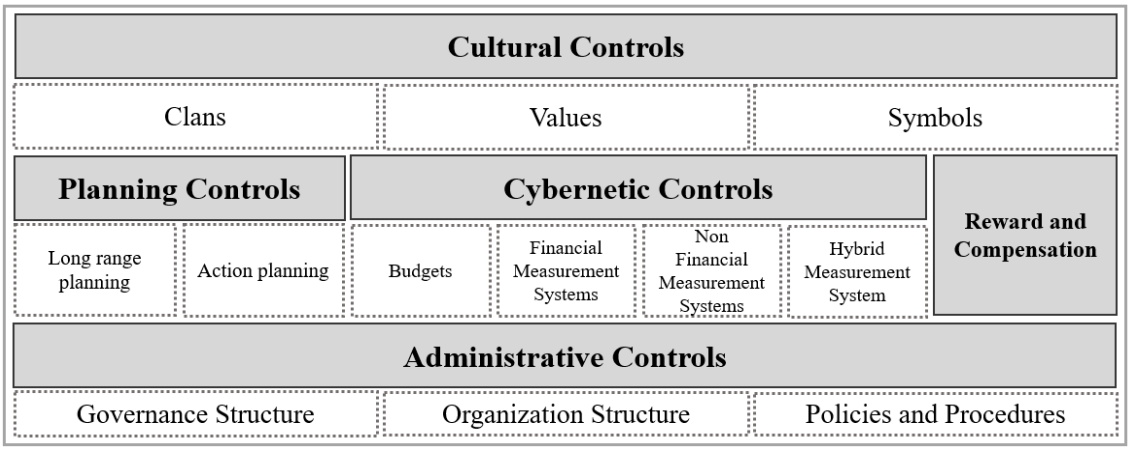


Figure 1. Malmi and Brown's (2008) Package of Controls

Cultural controls are defined as the collective set of values, beliefs, and social norms shared by organizational members. These informal controls influence the organization's culture by creating common values and beliefs that guide individuals' actions and decisions. Within cultural controls, Malmi and Brown (2008) include clans, such as social groups, values, such as mission statements and codes of conduct, and symbols, such as artifacts. Cultural controls

influence behavior through several mechanisms, such as recruitment and selection, training, and explicit reinforcement.

Planning controls create goals and guide expected behavior and effort (Malmi & Brown, 2008). These are divided into action planning for the upcoming 12 months, and long-range planning for the medium and long term. Malmi and Brown (2008) argue for a distinction between whether planning is done simply to decide on future activities, or if it is used to get employees committed to the plan. In the former case, it should not be considered an MCS but rather a decision-support system since it does not influence employee behavior. In the latter case, when planning is used to get employees committed to the plan, for instance, by actively involving employees in the planning process or communicating the plan to foster understanding and acceptance, it should be considered an MCS (Malmi & Brown, 2008).

Cybernetic controls are systems that rely on feedback loops to regulate behavior and achieve desired outcomes within organizations (Malmi & Brown, 2008). Within cybernetic controls, Malmi and Brown (2008) distinguish between budgets, financial measures, non-financial measures, and hybrids that contain both financial and non-financial measures. According to Malmi and Brown (2008), a cybernetic system is considered an MCS if behavior is linked to targets and accountability is established for performance variations. Conversely, a cybernetic system is considered an information system if managers themselves detect unwanted variances and modify their behavior accordingly without anyone else's involvement.

Reward and compensation motivate and increase the performance of individuals and groups within organizations by streamlining employees' goals and activities with the organizations' goals. The idea is that rewards, such as monetary incentives, lead to increased effort compared to situations where explicit rewards are absent. Linking effort to the task through monetary incentives impacts performance through three aspects: direction (the tasks individuals prioritize), duration (how long they stay focused on the task), and intensity (the level of attention they dedicate to the task). These systems are often directly linked to cybernetic control systems. However, organizations may also offer rewards and compensation for other strategic purposes, such as developing and maintaining an organizational culture.

Administrative controls guide employee behavior by shaping how individuals and groups are organized, how their behavior is monitored, who they are accountable to, and how specific tasks or behaviors should be performed. Malmi and Brown (2008) categorize administrative

controls into three main categories, namely organizational design and structure, governance structures, and policies and procedures.

2.5.2. Stakeholder Engagement Strategies

Communication is a central practice of stakeholder engagement (Greenwood, 2007), where agreement between firms and stakeholders is an important achievement for collaboration (Morsing & Schultz, 2006). To examine how firms use different MCS to engage with stakeholders, we refer to a framework developed by Morsing and Schultz (2006) which constructs three different strategies firms perform to communicate with stakeholders on sustainability: i) information strategy, ii) response strategy, and iii) involvement strategy. Their framework draws on Weick's (1995) sensemaking theory, particularly on the concepts of sensemaking and sensegiving, to explain the dynamic processes underlying stakeholder communication. Sensemaking refers to the process by which firms interpret and create meaning from the information they receive from stakeholders, while sensegiving refers to attempts by the company to influence how stakeholders understand and make sense of its actions (Gioia & Chittipeddi, 1991).

The stakeholder *information strategy* is defined as a one-way communication, from the firm to stakeholders (Morsing & Schultz, 2006). This strategy assumes that the firm's main objective is to transmit information about its sustainability work to stakeholders without actively seeking feedback or engaging in dialogue. Communication functions as sensegiving, where the company 'gives sense' to the stakeholders about its sustainability decisions and actions (Morsing & Schultz, 2006). Since stakeholders impact firms through their purchasing behavior or attitude (Smith, 2003), it is important to ensure stakeholders' attitudes remain positive toward the firm. Hence, firms must keep stakeholders informed to gain support and avoid opposition (Morsing & Schultz, 2006).

The stakeholder *response strategy* builds on two-way communication, however, it remains primarily focused on persuading stakeholders to accept the company's perspective (Morsing & Schultz, 2006). Although the communication moves back and forth between the firm and its stakeholders, the communication is asymmetric in how the parties affect each other. While the company gathers feedback to assess stakeholder attitudes, the company does not necessarily change its actions based on this feedback. Rather, it aims to 'make sense' of stakeholder perceptions to better 'give sense' and tailor its message for greater acceptance.

The stakeholder *involvement strategy* also builds on two-way communication but emphasizes genuine dialogue, mutual understanding, and collaboration, where influence works both ways (Morsing & Schultz, 2006). Companies actively seek stakeholder input throughout the sustainability work, from identifying issues to developing and implementing solutions. Managers 'make sense' of the feedback from stakeholders and use it to 'give sense' to their own decisions and adjust them accordingly in an iterative process, leading to a shared understanding and mutually beneficial outcomes. This requires systematic engagement to enable the investigation of actions beneficial for both the firm and its stakeholders. Hence, managers are responsible for ensuring that this two-sided interaction takes place to build the foundation for agreement. Morsing and Schultz (2006) assert that the primary task of top managers is to build organizational capacity for consistent and structured stakeholder interaction. The authors stress the importance of managers including employees within the organization to interact with stakeholders since a single manager cannot alone continuously engage all stakeholders. The three strategies' characteristics are described in Table 1, adapted from Morsing and Schultz (2006) to fit our study.

	Information Strategy	**Response Strategy**	**Involvement Strategy**
Communication style	One-way	Two-way asymmetric	Two-way symmetric
Communication ideal	Sensegiving	Sensemaking ↓ Sensegiving	Sensemaking ↕ Sensegiving
Stakeholders' role	Support or oppose	Respond to corporate actions	Participate and suggest
Sustainability focus	Decided by top management	Decided by top management, investigated in feedback	Negotiated concurrently in interaction with stakeholders

Table 1. Stakeholder Engagement Strategies adapted from Morsing and Schultz (2006)

2.5.3. Theoretical Framework

Combining MCS and stakeholder engagement allows for examining both the interplay between SR and MCS as well as how MCS are designed for external stakeholder engagement with suppliers and customers following the CSRD. The new SR requirements for companies to perform a double materiality assessment and report on their value chain calls for a change in how companies use MCS. The framework visualized in Figure 2 highlights the interrelated nature of SR, MCS, and stakeholder engagement, which we will explore in our empirical analysis.

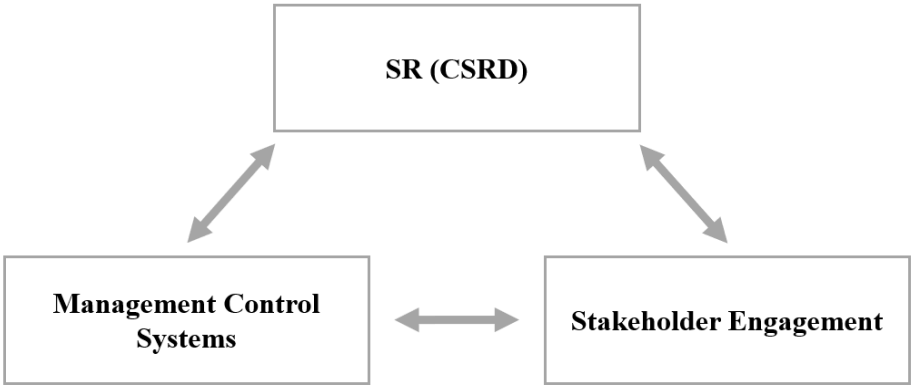


Figure 2. Theoretical Framework.

3. Methodology

In the following section, we guide the reader through our scientific research approach and process by introducing the methodological fit (3.1), study design (3.2), and data analysis process (3.3). Lastly, we clarify how we ensured the quality of our study (3.4).

3.1. Methodological Fit

Given its inherent novelty, the CSRD has not been thoroughly explored in academic research to date. Specifically, it has not been understood how companies adapt their MCS in response to this new directive, nor how MCS are used to enable stakeholder engagement. Therefore, this study was conducted with an exploratory purpose to generate new insights about a novel phenomenon (Edmondson & McManus, 2007). Although research on both MCS and SR can be considered relatively developed, the interplay between the fields is still largely under-researched (Maas et al., 2016; Traxler et al., 2020). The CSRD brings further considerations that prompt research in an area where existing theories no longer can be categorized as mature. A qualitative approach was thus considered more suitable than a quantitative one since qualitative data are suitable for studying phenomena that are not yet thoroughly understood (Edmondson & McManus, 2007). Moreover, the chosen theoretical framework, MCS as a package, is concerned with both formal and informal controls, making these controls difficult to quantify (Mahmoudian et al., 2022). Thus, a qualitative approach allows for a more nuanced and contextualized exploration of how firms' MCS are influenced by the CSRD as well as how these controls are used for stakeholder engagement. This also aligns with the predominant qualitative focus on the field of MCS related to SR (Rahi et al., 2022).

For this study, we adopted a constructionism ontology. We view reality as something that is shaped by social actors through their interactions, constantly changing in the process (Bell et al., 2019). This perspective recognizes that sustainability practices continuously evolve as societal expectations, regulations, and stakeholder pressures change. Epistemologically, we adopted an interpretive perspective by viewing reality from key organizational members' points of view (Bell et al., 2019). This allowed us to explore how the meaning and implementation of sustainability and SR are (re-)negotiated and (re-)interpreted across organizations following the introduction of the CSRD.

Moreover, since the study addresses an emerging and under-researched area, we initially adopted an inductive approach to avoid confirmation bias in the early stages of the research. As such, we intentionally avoided a deep immersion in the literature at the study's outset (Gioia et al., 2013). Given the limited scope of this study, we could not completely ignore previous work as we needed to ensure a sufficient research gap early on. Thus, existing research on SR was initially briefly reviewed, leading us to MCS as a starting point. As the research progressed, we shifted to a more abductive approach, allowing us to engage with the literature and empirics simultaneously (Bell et al., 2019). Using Malmi and Brown's (2008) framework as the starting point, we added stakeholder engagement theory, and more specifically Morsing and Schultz's (2006) stakeholder engagement framework, as we gained more insights into the field. Thus, we went back and forth between theory and empirics to adjust the framework gradually when confronted with empirical data. This dual approach enabled us to capture concepts relevant to the human organizational experience while maintaining the rigor necessary for scientific theorizing about those experiences (Gioia et al., 2013).

3.2. Study Design

To study how the CSRD influences organizations' MCS, we decided to narrow our study to Sweden. This decision was made because EU directives must be transposed into national law, meaning EU Member States are allowed to impose stricter rules on companies in addition to the mandatory central requirements. Therefore, we focused the study on a single geographical market to ensure a consistent regulatory environment throughout the analysis. However, since Sweden does not impose stricter requirements than those outlined in the EU directive, we still believe our findings are useful beyond this context.

As argued by Yin (2013), case studies are suitable for studying the emergence of contemporary events in their context. The nascent stage of research on the CSRD suggests studying several companies and not one specific case company to enable comprehensive findings. Moreover, studying multiple cases typically provides a stronger basis for theory building (Yin, 1994), by enabling *"comparisons that clarify whether an emergent finding is simply idiosyncratic to a single case or consistently replicated by several cases"* (Eisenhardt, 1991, as cited in Eisenhardt & Graebner, 2007, p. 27). As such, the study sought to gather rich descriptions from multiple companies to produce general findings that could stimulate new theoretical ideas that would help set the direction for future research (Bell et al., 2019).

3.2.1. Sampling

Following theoretical sampling, we did not seek a representative sample but rather one suitable for illuminating the phenomenon under study (Eisenhardt & Graebner, 2007). Theoretical sampling encourages researchers to sample the extremes, as these are considered to have the potential to provide theoretical insights (Eisenhardt & Graebner, 2007). For us, this meant identifying firms from diverse contexts, representing a broad range of industries, yet sharing a single common trait: being CSRD pioneers.

To start off, we defined three criteria for what being a CSRD pioneer actually means. First, building on the phased implementation of the CSRD, we focused on companies that will fall within its scope in the coming years - specifically those required to implement the CSRD in 2025. This narrowed our sample to large firms, defined as companies meeting at least two of the following three criteria: i) net revenue of 50 million euros, ii) total assets of 25 million euros, and iii) 250 employees. Second, since our research aimed to identify how specifically the CSRD influences MCS, we focused on firms with prior experience in SR. This provided a baseline for understanding how the CSRD introduces changes and also ensured richer data as these companies are likely to be further ahead in implementing the directive. Consequently, we only sampled companies that had been publishing sustainability reports before 2024. Third, we focused on companies that explicitly indicated the adoption of the CSRD to verify that the firms indeed were working on implementing the directive.

As a second step, to identify firms fulfilling the defined criteria, we interviewed two experts from two consulting firms that advise companies on sustainability-related matters, including the CSRD. Additionally, we received materials regarding participants at a workshop on the CSRD that one of the consulting firms had conducted, along with a benchmark report on SR published by that same firm in 2024. Followingly, we compiled a list of companies and complemented the list with our own desktop research. This included verifying the companies against the three set criteria and adding additional companies to the list by studying publicly available information.

Thirdly, to form an initial understanding of how the firms have worked with the CSRD and identify relevant candidates to interview, we read the companies' sustainability reports and screened candidates on LinkedIn. Finally, we started the parallel data collection and analysis. Since theoretical sampling is an ongoing process, it occurs in different stages (Bell et al., 2019). Based on our desktop research and expert interviews, we initially reached out to 10

firms considered the most complete cases for investigating our research question (i.e., those that seemed to have come the furthest with implementing the CSRD). Due to time constraints, we deemed it appropriate to reach out to multiple firms at once to ensure access early on. After each interview, we coded and analyzed the data, to reinterpret our emerging theoretical framework and subsequently use this new information to guide the additional data collection (Bell et al., 2019). Since not all firms responded or agreed to be interviewed, more firms were contacted throughout the data collection phase as the research aimed to engage a group of companies large enough to ensure theoretical saturation. This means that interviews were conducted until no new insights into the emerging theory were found. This happened after the 19th interview, but to confirm that saturation was reached, *"a study should go beyond that point to prove the density of the study"* (Strauss & Corbin, 1998, p. 212). Hence, three additional interviews were conducted with similar results found. In total, we ended up contacting 54 firms and performing 22 interviews. More information about the interviews can be found in Appendix I. All the interviewees and case firms have been anonymized through abbreviations for company names and generalized titles for individuals.

Within each case firm, we sought informants who were involved in the SR and sustainability work at each company, holding senior positions such as Sustainability Manager or Sustainability Reporting Manager. This allowed us to study the intersection of MCS, SR, and stakeholder engagement empirically, by ensuring access to people with insights into how the work following the CSRD had been structured. We decided to interview one person from many organizations rather than many individuals from a few organizations as this provides a broader perspective across different organizational contexts. The disadvantage of such an approach is the potential for missing important nuances within organizations.

3.2.2. Data Collection

3.2.2.1. Preparatory Work

Before each interview, we went back to the firm's latest sustainability report and studied publicly available information to ensure a thorough understanding of the organization. Having the information in place before each interview allowed for an understanding of the interviewees' context and the ability to ask customized follow-up questions (Bell et al., 2019).

3.2.2.2. Semi-structured Interviews

Data was collected through semi-structured interviews with a representative involved in the sustainability work at each firm. We used an interview guide that contained open questions to ensure that the interviewees provided their views on the topic (Bell et al., 2019). As more insights were collected through each interview, some adaptations of the questions were made throughout the data collection phase to study empirical gaps, but a standard interview guide can be found in Appendix II. Having designed the research within Malmi and Brown's (2008) framework, we aimed to identify the influence of the CSRD on each of the five controls concerning managing and reporting sustainability performance, including how companies engaged with suppliers and customers. As such, the interview guide sought to help shed light on the companies' practices for sustainability, SR, and stakeholder engagement altogether.

Since the interviewees held senior manager positions in large companies with busy schedules and were geographically dispersed, all interviews were conducted over Microsoft Teams and had an average duration of 39 minutes. A drawback of online interviews is the risk that the interviewee and interviewer cannot establish the same level of rapport compared to face-to-face interviews (Curasi, 2001). To mitigate this risk, we began each interview with small talk to establish rapport (Rubin & Rubin, 2012) and ensured the usage of video (Deakin & Wakefield, 2014). Following the introductory small talk, we asked for permission to record the conversation while clearly stating the respondent's anonymity in participating in the study (Bell et al., 2019).

We began each interview by asking the interviewees to present themselves followed by some systematic warm-up questions that were broad enough to let the interviewees give information on the topic without being influenced by the questionnaire. Consequently, we went through the core parts of the questionnaire and finished up with a wrap-up question asking the interviewee if they wanted to add something. While following the interview guide, follow-up questions were asked and adapted to the specific interviewee's responses to ensure all possible insights were collected (Bell et al., 2019). Both researchers were present during each interview to enable one of us to act as a 'devil's advocate' and ask follow-up questions while taking extensive notes.

3.3. Data Analysis Process

All interviews except one were held in Swedish. This ensured the interviewees felt enabled to speak as freely as possible as Swedish was their first language. The one interview not held in Swedish was conducted in English. All interviews were transcribed in the original language and carefully translated to English manually within 24 hours after each interview.

To process the data, we used a grounded theory approach in line with Gioia et al. (2013). This approach helps researchers develop theory from systematically collected data (Bell et al., 2019). The coding process was initiated by first-order analysis to find concepts and then second-order analysis to find congruence between the identified concepts. The first-order analysis phase was performed shortly after the transcription process, in which each author independently tried to identify all possible concepts using informant-centric terms (Gioia et al., 2013). The aim was to capture the language and perspectives of the interviewees as authentically as possible, without imposing premature interpretations. Once a substantial number of concepts were identified, these were merged into an Excel file with their corresponding quotes. This allowed us to compare our findings and develop a shared understanding of the initial coding phase, shifting the focus toward identifying patterns across the first-order concepts. Following, the myriad of categories was reduced to a manageable number, from beyond 50 to 24. At this point, we moved into the second-order analysis by reflecting on the data to theoretically explain the first-order concepts (Gioia et al., 2013). We identified constructs aligned with MCS and stakeholder engagement theory, which were then further refined into two aggregate dimensions; management control systems and stakeholder engagement strategies. An extract of the methodological approach is presented in Figure 3, with a complete overview available in Appendix III. To illustrate the cohesiveness of each concept, we mapped all the transcribed interviews with the first-order concepts, which can be found in Appendix IV.

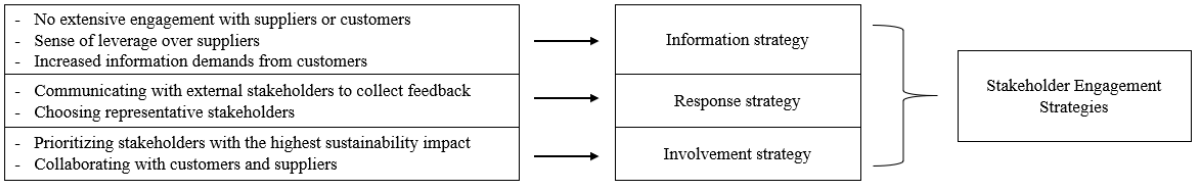


Figure 3. Extract of Methodological Approach

3.4. Quality of the Study

Lincoln and Guba (1985) argue that there are alternative criteria for evaluating qualitative studies and propose four key aspects of trustworthiness: i) credibility, ii) transferability, iii) dependability, and iv) confirmability. To ensure the quality and trustworthiness of our research, we employed several methodological tools aligned with each of these criteria, detailed in the sections below. We also include a discussion on ethical considerations.

3.4.1. Credibility

The credibility of a study refers to the confidence in the truth of the findings. There are multiple factors that could diminish a study's credibility, such as asking leading questions and being biased as a researcher. To reduce this risk, we used open-ended questions and avoided sending questions to the interviewees beforehand. Moreover, Lincoln and Guba (1985) suggest persistent observation as a strategy for ensuring credible findings. As our research progressed, we adopted a more abductive approach, allowing us to identify and focus in detail on the characteristics and elements most relevant to our study's aim.

3.4.2. Transferability

Transferability refers to the potential for a study's findings to be useful beyond the specific context in which it was originally tested (Lincoln & Guba, 1985). To strengthen transferability, we have limited our conclusions to the specific context of the CSRD and described the empirics and research process thoroughly for transparency (Lincoln & Guba, 1985). By applying theoretical sampling, we ensured a broad representation of 22 firms from different industries in Sweden. Since our focus is on the CSRD, which requires national implementation within EU countries, this may suggest limited applicability to countries outside of Sweden. However, because Sweden does not impose stricter requirements than those outlined in the directive, we do not view this as a limitation. Further, since the sample is not limited to a specific industry, implying a low emphasis on context beyond the specific regulatory environment, we believe our findings are somewhat transferable to other companies as well. It is however important to note that the study's focus on companies with prior experience in SR might overlook the directive's implications for those less experienced in either sustainability or reporting, or both, reducing its transferability to such contexts.

3.4.3. Dependability

Dependability is defined as whether observers can clearly follow and understand the study's research process (Bell et al., 2019). Taking an interpretive stance, it is crucial to critically assess facts and interpretations (Flick, 2014). To achieve high dependability, we thoroughly explain our research process which in combination with figures and appendices builds a solid base for understanding. The dependability was also enhanced by the guidance from the supervisor critically assessing the methodology.

3.4.4. Conformability

Confirmability is important in qualitative studies as it emphasizes the importance of opposing researcher bias (Bell et al., 2019). Biases in this study were reduced by staying true to the collected data and by the process of performing the first phase of analysis individually and then comparing each researcher's findings. In this way, individual biases could be identified (Timmermans & Tavory, 2012). To limit researcher bias further, we regularly discussed our methodology and findings with our supervisor and peers to uncover taken-for-granted assumptions. There is also a risk of selection bias in our study as the sample is non-randomized, however, this was mitigated by thorough investigation and expert interviews with insights into potential companies to interview.

3.4.5. Ethical Considerations

During the data collection process, we made certain that the identities of all 22 companies and interviewees stayed anonymized. Prior to each interview, we sent out a GDPR form to all interviewees to obtain their permission to record and store the recordings during the transcription process. We made sure to ask the interviewees for the same permission once more at the beginning of each interview. Furthermore, all personal or sensitive information was removed from the transcripts.

4. Empirical Analysis

Considering the methodological approach, this section presents the empirical findings structured according to our aggregate dimensions: management control systems (4.1), and stakeholder engagement strategies (4.2). Each section is divided in accordance with each dimension's second-order constructs. Appendix IV provides an overview of the mapped first-order codes informing the second-order constructs for each company.

4.1. Management Control Systems

4.1.1. Cultural Controls

The influence of the CSRD on corporate culture was identified in 18 out of 22 companies. Interestingly, although all companies had been producing sustainability reports before the CSRD, the companies acknowledged that it had a positive impact, highlighting that people in their organizations were becoming more aware of and interested in sustainability topics.

"There are more people who are becoming interested in the topics. There are more people who want to read and get involved and have their say on different issues of data quality, on priorities, on processes." - Company D

Beyond showing greater interest in sustainability, the interviewees emphasized an increased understanding among employees that SR is an essential aspect of the organization. As Company I explained:

"The big difference is that people now understand that this is not just nice to have, it's a must-have." - Company I

Moreover, several interviewees highlighted that the CSRD was viewed as burdensome and reporting-heavy, presenting a need to manage employee expectations and reduce the experienced compliance burden to counter internal resistance.

"It has taken a very long time to grasp and understand the scope, and this uncertainty that exists about what you actually need to do has been very time-consuming." - Company H

As such, 15 interviewees highlighted an increased focus on educating employees within the organizations, resulting in their increased exposure to sustainability topics. Malmi and Brown (2008) discuss how training can be considered both an administrative control and a cultural control, depending on how it is applied. When it is about teaching individuals to follow

specified policies and procedures, training is considered an administrative control (4.1.5), whereas when it is used to manage organizational culture, it functions as a cultural control. By framing training as a means of shaping organizational culture, the interviewees highlighted its role in aligning expectations and fostering a shared understanding of the CSRD.

"Because we [the sustainability department] have had the best overview of the CSRD, having focused on it for years, we have had to inform, educate, and onboard, and kind of explain this new reality for our colleagues in different functions." - Company J

The internal intranet platform served as a medium for distributing information on the CSRD in some companies. In addition, several interviewees referred to dialogs and informal interactions to allow employees to ask questions and share concerns.

"We have quite a frequently visited intranet where we sort of push out communication about the CSRD, about reporting, about sustainability." - Company E

"And then we've been in close contact and dialog to make sure we all understand the same thing and we've been open to questions and dialog also after the training." - Company V

4.1.2. Planning Controls

Turning to planning controls, the CSRD influenced both action planning and long-range planning. In terms of action planning, 16 out of 22 interviewees agree that the CSRD is stealing a lot of resources and disrupting their daily work. The interviewees mentioned that they were giving themselves time to focus on SR for the immediate future rather than on actual sustainability initiatives.

"It takes a lot of time and resources on a reporting issue. That time could have been spent more on improvement work." - Company S

"Normally, the organization is much more creative and acts as a sounding board and has its own initiatives and discussions about sustainability. It might not have been as much proactive work from the organization, rather it's more that we have to report on these topics." - Company I

As members of large organizations, some interviewees expressed feeling pressured to publish good reports. Consequently, companies adopted more reporting-focused short-term goals, shifting employee attention toward meeting SR requirements.

"You sense how the managers are getting a bit stressed. You can see that they, well, we have to deliver on to this because we are [a large company], and we have high demands on us from the board, and also from politics. So you can see that we can't mess this up, we have to make it right." - Company Q

Faced with the resource-intensive demands of the CSRD, several interviewees compared the CSRD requirements to financial reporting standards, expressing concerns about the tight deadlines imposed to meet similar levels of rigor.

"There is a need to align sustainability reporting with financial reporting. But having said that, financial transactions have been regulated for thousands of years, while sustainability reporting will now be raised to the same level in just a few years." - Company K

A recurring theme was thus the need to balance the increased administrative burden in a way that does not undermine the core sustainability work.

"The problem now is to try not to get caught up in reporting. I think we have a challenge, just like many others, that there is a risk that we get stuck in reporting and compliance instead of driving development and change, which is our main task really." - Company J

In terms of long-range planning, 14 out of 22 interviewees said that the CSRD has no impact on sustainability strategy, clearly stating that they see reporting as something driving transparency, not sustainability efforts.

"I sometimes feel that you end up at many conferences where everyone thinks the CSRD would be the silver bullet for companies' sustainability work. And I don't think it is. It's a silver bullet for sustainability reporting." - Company I

That said, 21 out of 22 interviewees still highlighted that the CSRD provides broader insights due to the enhanced reporting scope. For instance, Company R emphasized how the CSRD supports setting medium- and long-term goals and actions, particularly through its requirement to communicate a transition plan. While all interviewees acknowledged they had previously worked on such plans, the shift lies in how these efforts are now more explicitly structured.

"We already had a transition plan, regardless of the CSRD, and a long-term strategy. So in that sense, it has not changed. Rather, I would say it has deepened. The direction was defined along with the actions we needed to take. However, with the CSRD, the path there becomes more comprehensive and granular." - Company R

Moreover, several interviewees shared the perception that the financial perspective in the double materiality analysis is a timely and welcome addition as it helps companies prioritize their sustainability efforts.

"I mean, we're in the health sector so for us it's very natural with S4 and sort of looking at 'What are the opportunities if we can make healthcare more efficient? What do we gain from it? What do our customers gain from it?' And then you get a clear figure behind it to prove that that's what you should put resources on." - Company B

All companies had started their 'CSRD journey' by conducting the double materiality analysis, which increasingly involve more people from their organizations. Although all interviewees expressed having made little to no significant changes resulting from the double materiality analysis, 15 out of 22 interviewees highlighted the increased involvement of organizational members in identifying material topics that can potentially enhance employee commitment to these strategies.

"What is new is this double materiality analysis. And we did that last year, we spent a lot of time on it and got a lot more people involved in this. Because it's not just us in the group who can do this, but we have to involve the business community. So we had up to 100 people who were involved and gave input to the work." - Company I

4.1.3. Cybernetic Controls

The information demands stemming from the CSRD and the ESRS can be seen as triggers for organizational changes regarding data collection processes and performance standards. In response to the CSRD's assurance requirement, 15 out of 22 interviewees emphasized an increased focus on data quality, prompting efforts to develop improved methods for collecting sustainability data.

"There's a completely different set of requirements now thanks to the CSRD when it comes to the quality of the data, as the bar has been raised for the auditors' type of review. Before, you had so-called limited assurance. But now there will be the same assurance on sustainability

data as there will be on financial data and then the requirements will increase, that goes without saying." - Company I

"It's very important when it comes to the CSRD that you start with the method before you run off and collect data. Because otherwise you're running blind and just collecting numbers, but you don't really know how you're collecting it and of what quality it is." - Company F

In addition, stemming from the difficulties with quantifying non-financial metrics, such as CO2 emissions and sustainability-related IROs in the financial materiality analysis, many companies were focusing on getting that in place to fulfill the CSRD's requirements.

"You don't end up with decimals on anything. It's more of a ballpark - we estimate it's between 5-10 million, or between 10-50 million. Because you don't have the material that you have in a regular financial statement where you can kind of trace your data to an invoice or a specific cost, but it's more like, 'Okay, how do you value a future potential impact of a flood in a factory in Malaysia?'" - Company A

While it is expected that targets that have not been measured before are coming into focus due to new reporting requirements, several interviewees noted that the CSRD introduces fewer new metrics than they initially anticipated. Many said they already had most of the required metrics in place. Consequently, companies were primarily refining existing metrics rather than developing entirely new ones, while still navigating how to implement the changes effectively.

"We have not added any completely new metrics at this point, but we have expanded and broadened and strengthened our current data collection process." - Company E

Moreover, 11 out of 22 interviewees highlighted how employees were increasingly using the targets collected in the reporting process as input to their work, guiding their behavior towards the organizations' desired outcomes.

"Our HR function has started to look at these KPIs we collect much more to be able to draw conclusions about what topics we need to work on. If we have a high turnover of staff, for example, or if we have high sick leave, it becomes very concrete that this is what we should work on." - Company B

Finally, although some interviewees mentioned having hired additional roles to equip the organization for the CSRD, the link between the CSRD and budgets was not extensively

elaborated. A few companies mentioned that their budget had remained the same, implying a low level of impact. 12 out of 22 interviewees reflected upon how the increased compliance burden raises concerns about potential negative impacts on sustainability management processes if budgets are not adapted. More specifically, some worried that the increased focus on reporting diverts resources from driving sustainability initiatives.

"CSRD also requires the reports to be audited by a third external party, and those audits are extremely labor-intensive and cost-driving. So the risk is that we, and all other sustainability departments, will practically lose budget to drive change efforts because such a large part of the budget will go to those pieces." - Company J

4.1.4. Reward and Compensation

From a reporting perspective, organizations can establish targets relating to the sustainability report itself, such as meeting reporting deadlines or improving the accuracy of reported sustainability data. From a sustainability management perspective, the enhanced access to data following the CSRD may introduce increased opportunities for linking sustainability performance to monetary incentives. However, the interviewees did not mention any impact of the CSRD on their reward and compensation systems.

"So far we haven't changed that, so we'll see if that happens in the future." - Company H

The 14 companies that already offered sustainability-linked bonuses to managers had introduced those before the CSRD. Among those firms, the majority had bonuses tied to environmental sustainability performance measures, such as their emission targets. Additionally, three companies (I, O, U) mentioned bonuses tied to social sustainability such as health and safety.

"We already had a bonus system in place before CSRD where you, depending on the result of our Scope 1, 2, and 3 emissions, get a bonus based on the result against a target." - Company S

"We have one bonus tied to a 'healthy workplace' - that we will work towards a zero vision of workplace accidents." - Company O

Those 8 companies without bonuses tied to sustainability either lacked reward systems altogether, as management chose not to implement such controls, or refrained from

connecting sustainability performance measures to monetary incentives due to concerns about the reliability of such data.

"We don't have bonuses and we probably won't introduce it either. No, we have chosen that approach, as it stands right now, management and the board don't want it." - Company E

"It will be brought up as a decision because, as I said, we will have to report on it. However, we have felt that data quality has not been good enough so far." - Company N

Following the CSRD, 8 out of 22 interviewees highlighted that the CSRD potentially could influence their reward systems in the future. Several interviewees noted that the improved availability of data and enhanced methods for collecting sustainability information could lead to more refined bonus metrics and potentially the introduction of new ones.

"We're currently evaluating how to do this in a good way. And here you have an example of how the CSRD and the resulting data we get can help drive something that's not just for the sake of EU reporting, but the data and the quality that you build up can be used to set new KPIs linked to bonuses going forward." - Company A

"Since we already had it, we do not see a huge impact right now. But it's definitely something that can be reviewed in the longer term. Maybe not just environmental KPIs and targets but also S and G topics so we cover the full sustainability perspective." - Company V

4.1.5. Administrative Controls

Given that the CSRD places responsibility for SR with the board, 19 out of 22 interviewees said that the board and management team are increasingly involved in both SR and sustainability work at their organizations.

"Every quarter, I report to the board on the status and progress of our sustainability work. And they have of course also, well they have not been directly involved in conducting the materiality analyses, but they have seen and approved the outcome because they are ultimately responsible in the end." - Company J

"We involve more people from the management team so that it really sparks activity within the organization." - Company I

The involvement of top management helps with streamlining organizational sustainability efforts and priorities, as Company O explained:

"There's a greater focus on what is actually important and what isn't. You can't chase after everything. There'll be better structure. Decisions will be made higher up in the organization than sustainability matters have typically been in the past." - Company O

Interestingly, one of the major changes within administrative controls was noted within the organizations' structures. 16 out of 22 interviewees highlighted that responsibility for SR has been fully or increasingly transferred to the finance department. The integration of SR into finance follows as a natural step from the enhanced audit requirements and more robust measurement processes, as finance teams are experienced in rigorous audit and compliance requirements.

"What is happening now and what must happen as a direct consequence of the CSRD is that sustainability reporting can no longer be a matter for the sustainability department. It will end up in the department that produces annual reports, that is, the finance department." - Company J

While some companies (F, I, M, P, Q, R) had already assigned responsibility for SR to the finance department, others (B, C, E, G, J, K, L, O, S, U) opted for a more gradual approach. In the latter case, the sustainability department initially collaborates with the finance department before fully transferring the responsibility. The two approaches are explained by Company M and C respectively.

"One thing that partly CSRD has driven in our company is that the whole reporting work, not data collection, but reporting has moved from sustainability to finance." - Company M

"The sustainability reporting has not landed on me as Sustainability Manager and my team, but now we are two fairly powerful teams, and [the CFO] has said that in two years, he will take over everything once he feels sufficiently prepared and his team is ready." - Company C

In addition, some companies (B, F, I, J, L, U) had recruited sustainability controllers to enhance organizational capabilities for SR.

"We clearly see that we need new skills in the work. And one of the things is that we need more expertise from our finance department. So now we have hired a financial sustainability controller. " - Company L

Building upon this, several interviewees shared the view that the finance department's increased involvement also helps to raise the status of sustainability.

"When you elevate sustainability topics to a finance function, I think it creates even more, and I'm not going to say that I think sustainability has had a low status, but I think it creates a higher status within the company regarding the seriousness and importance of sustainability." - Company M

Moreover, Company G highlighted how training was used as an administrative control to teach individuals from the finance department about the CSRD requirements and related reporting processes.

"It was quite like building up and sharing and, I guess, also in a way training, because I noticed it myself when interacting with these new colleagues, the language barrier if we can call it that. Just the terms and the acronyms and so on. We're so used to using sustainability acronyms, while they're so used to using financial acronyms." - Company G

That said, 13 out of 22 interviewees highlighted that the extensive scope of the CSRD still requires the involvement of a variety of functions internally. They approach SR by coordinating multiple functions to manage tasks ranging from data collection to providing inputs to sustainability work.

"I am not the one who owns and controls the actual sustainability reporting. But in general, you could say that it involves large parts of [the company]. So this is far from being a small function that sits and works with sustainability reporting; rather, it is an assessment that involves many parts of the organization." - Company R

"We have a working group with colleagues from other departments. It's not just sustainability people working with the CSRD. It has to be R&D, HR, investor relations, legal, and so on. So many people are involved in the work." - Company V

Furthermore, 17 out of 22 interviewees stated that the CSRD has led them to update and restructure their policies to align with the CSRD. Although most companies had sustainability policies in place prior to the CSRD, the new requirements introduce a need to reevaluate and strengthen some policies. The interviewees explained how it entails both restructuring and adding new policies.

"It's part of the work now, we see that we need to adjust some things. So it has begun and will probably be more so in the future that we need to review and also add some new policies on, for example, biodiversity." - Company H

4.2. Stakeholder Engagement Strategies in Sustainability Reporting

Based on stakeholder theory, Morsing and Schultz (2006) develop three different strategies firms employ to communicate with stakeholders on sustainability. Prior to the analysis, it needs to be pointed out that firms employ different strategies simultaneously. As companies cannot engage equally with all suppliers and customers, some companies balance proactive strategies, such as involving, with more reactive strategies, such as informing and responding.

4.2.1. Informing Stakeholders

From the empirical data, it is possible to identify patterns in how companies adopted the information strategy when communicating with external stakeholders. Within our sample, 16 out of 22 companies have had no extensive dialogs with customers or suppliers in their materiality assessment.

"It's not that we don't know our value chain - we know very well the topics, upstream and downstream. We have reinforced this through various types of research and studies. We haven't conducted any extensive stakeholder dialogs, we don't think it added anything at this point." - Company E

Company J built on this and explained how the degree of understanding of the CSRD differs between suppliers, limiting their ability to provide any valuable input. As such, companies employing this strategy focus on informing and educating their suppliers on the CSRD instead of seeking their feedback on their sustainability work.

"Some suppliers are not as familiar with what all these EU directives and requirements really mean, so it's very much a discussion that needs to be started and allowed to take some time so that all our partners understand what it's about, and what we need from them, and how we can help them, and why these requirements are set." - Company J

Moreover, 10 out of 22 companies indicated that they see themselves as having the advantage of selecting among suppliers. This perceived leverage underscores their view of holding a dominant position within the value chain, reflecting a top-down strategy, where sustainability focus is established internally and communicated outward, rather than collaboratively developed with suppliers.

"Either they comply with our requirements, such as the code of conduct and other requirements, and then they become a supplier. Or they choose not to, then they don't become a supplier. " - Company I

"In practical terms, we have to opt out of certain suppliers where we cannot guarantee that the risks are minimized." - Company U

Turning to customers, 11 out of 22 interviewees explained how the CSRD increases the pressure they get from their customers to share information and sustainability data.

"I think that the big change for us as a company is the demand, interest, and actually the requirements from our customers." - Company P

"From the customer's side, they have very high demands that we must deliver better data. But customers don't really care that much about the CSRD, they mostly care about their own reporting." - Company Q

For companies working in the business-to-business sphere, this does not come as a surprise considering that many of their customers also need to report on their value chain. Still, it is interesting since it demonstrates how the CSRD creates a ripple effect, where sustainability becomes not only a compliance issue but also a competitive necessity. Being able to respond to the increased requests from customers with high-quality data on sustainability can lead to business opportunities, as highlighted by Company F:

"If we have data from our suppliers, it's a way for us to communicate to the companies that are far ahead in sustainability and say that yes, but if you work with us at [company F], we probably have a better idea of our climate impact than many of your other suppliers so that if you work with us, you get the best possible figures on climate." - Company F

However, the scope of the companies' value chains puts constraints on how to meet the increasing information demands. At the same time, not supplying the information puts their collaboration at risk. As such, companies used standardized reports to provide information to multiple customers.

"And there we have, among other things, enabled our customers to find reports or they can make their own reports. We have a [tool] and then they can get the climate impact of their purchases via that so that they can report themselves." - Company L

"If we have 3,000 customers who want data, it's not that efficient if each employee sits and makes their own printout from the energy system. So we have developed a standardized report that everyone can download. It's more an indirect consequence of the CSRD. It's not because we need to be able to report, but because our customers need more data." - Company P

4.2.2. Responding to Stakeholders

The analysis also reveals that 17 out of 22 companies employed the response strategy when communicating with external stakeholders, emphasizing communication and feedback collection rather than deeper collaboration or negotiation. While some of the companies conducted the double materiality analysis internally, a majority incorporated external feedback, pointing to the inclusion of both suppliers and customers, as well as other stakeholders.

"We hold a stakeholder dialog every year or every other year, where we reach out and ask customers, suppliers, NGOs, external organizations, employees, the board, and management what they think. So we collect it and take it into account when we do the double materiality analysis." - Company K

Decisions on sustainability priorities were mainly made by the companies themselves, with stakeholder engagement serving more as a tool for sanity-checking their conclusions than a source of influence. This approach often results in minor adjustments rather than substantial shifts in strategy or focus.

"No, but we had this stakeholder dialog then. And after we completed it, we've also had some dialog with some of our key customers about how they have worked. So, it's kind of about knowledge sharing really to see that you have somewhat landed in the same analysis" - Company H

"We'll compile the double materiality analysis and then review it with all the interviewees, asking them to check its reasonableness. We've already done that now. So for the annual report that refers to 2023, we ran a calibration and then sent it out to all interviewees and asked them to take a look at whether it made sense, and we got some comments back that made us change some things. There was a wording in the matrix that we changed for example." - Company F

However, interviewees noted the complexities of engaging stakeholders across the value chain, making it difficult to determine whom to consult. These challenges are further amplified the deeper a company navigates up or down the value chain, as they often lack direct contact with suppliers and customers beyond the first tier.

"One of our business areas has a couple of hundred thousand different customers, while the other has three hundred customers. So ok, who should we talk to then? Should we talk to a hundred thousand or three hundred customers?" - Company A

"Once you trickle down to like the next tier, so the suppliers of the suppliers, it gets quite tricky. Because oftentimes we don't have that direct engagement." - Company G

To address these complexities, 17 out of 22 interviewees mentioned how they aim for a broad representation, by selecting stakeholders of various sizes and geographic locations, as for instance, Company P and V described:

"So for customers, we took someone big and someone a little smaller to feel that we got a good representation from them. We also thought about different locations. And we had the same approach with suppliers." - Company P

"We involved people from all over the world or representatives from parts of the whole value chain." - Company V

Nevertheless, while companies aim to select a variety of stakeholders to ensure comprehensive coverage, a key challenge with the response strategy lies in achieving high response rates. This affects the representativeness of the input, as Company M explained:

"I think that quality assurance of how you conduct stakeholder engagement and how you conduct your materiality analyses will need to be strengthened quite a bit. I would say that - or I know that - the response rate in these is quite low. And as far as I know, there's still no good way to do a non-response analysis either. Like 'Who has chosen not to participate and provide input and what is the input we might miss because of that'?" - Company M

However, this challenge becomes less apparent by the fact that all companies in our sample have a long history of working with sustainability and producing sustainability reports. As a result, they already have a solid understanding of sustainability topics and have incorporated stakeholder dialogs into their strategies over time. This pre-existing familiarity may

contribute to the perception that stakeholder engagement, while valuable, is less critical for identifying entirely new insights.

"We have done it before, so it's nothing new for us to think in that way. We have already taken the value chain into account in previous sustainability reports." - Company H

4.2.3. Involving Stakeholders

In the involvement strategy, companies co-construct their sustainability efforts together with stakeholders, fostering a two-way influence. From the empirics, it is possible to identify how 7 out of 22 companies adopted the involvement strategy following the CSRD. These companies noted how the CSRD sheds light on the interconnected nature of the value chain, enabling companies to drive change collectively.

"We're still trying to do the usual things. The challenges in the world have not changed with the CSRD, but it may be noticeable in a different way to more stakeholders that the issues and pressures are coming from more directions rather." - Company J

"Because before, we had goals throughout the value chain when it came to climate, for example. But for that to work, our customers also need to be interested in driving sustainability and our suppliers need to be interested in us. Everyone is part of the entire value chain. And now that everyone has the same systematic approach to sustainability, we are much more linked to each other in the value chain." - Company L

While the degree of dialog varies depending on the size of the value chain actor and the depth of the relationship desired, these interviewees emphasized the importance of engaging suppliers and customers with the highest sustainability impact in the value chain.

"You make an assessment of what is big and small; where the climate impact is high, you want to step in and steer where you see opportunities to create change." - Company H

When it comes to the influence between companies, customers, and suppliers, these interviewees express a proactive approach and see an opportunity to engage with suppliers and customers to drive change in, for instance, their own Scope 3 emissions.

"What we do there is talk quite a lot and increasingly with customers, trying to get them to use renewable energy. If they use renewable energy, then the footprint of our products is also reduced. So we have that kind of dialog more and more often." - Company E

"We require stakeholder engagement from our suppliers just because the majority of our emissions are Scope 3, like what we purchase from suppliers. So there's quite a lot of engagement with our suppliers because of this, trying to get them to set Science Based Targets and understanding their reduction plans and what plans they have to contribute to eventually evolve and help us meet our goal." - Company G

Moreover, Company S was strengthening its processes to ensure that suppliers are aware of and capable of communicating any concerns to be able to act upon those quicker.

"We have a whistleblowing channel for suppliers, so it's a way for them to express concerns. Now we've added an educational element much more clearly towards the suppliers so that they can understand why it is important to us and also how to express dissatisfaction to us directly." - Company S

Additionally, Company L highlighted how customer engagement extends to product development. As customers are more interested in buying sustainable products to be able to include better numbers in their own reports, customers are increasingly involved in decisions regarding new products.

"Before, we would put a product on the market and then wonder if anyone wanted it. But now, with the dialog with large customers who also have goals to reduce their climate impact, we can work together like, 'Okay, what do we need in terms of volumes'?" - Company L

To facilitate supplier and customer engagement, companies employing the involvement strategy went through employees working within sales or purchasing to bring sustainability topics to suppliers and customers.

"When we're going to involve customers or someone on the customer side, we go through our sales organization, talk to the salespeople, and ask them to bring certain topics to their customer meetings. I would say the same thing on the purchasing side with suppliers - we contact the purchasing department first and they bring the questions to the suppliers." - Company B

"For example, for a couple of years now, we've had quite concrete projects together with all suppliers that we can identify who want to be involved in CO2-reduction projects, as well as engaging them, pushing them, getting them to do things to reduce their own footprint, and our buyers are measured on that." - Company E

Furthermore, Company B described how the closeness between the sustainability and sales departments influences the degree of customer engagement, leading the sales team to be more proactive when it comes to involving customers in their sustainability work.

"You notice that the salespeople who push these topics the most are the ones we [the sustainability department] are closest to physically. We sit in the same office." - Company B

5. Discussion

In this section, we structure the discussion based on our two research questions, relating our findings to previous literature. First, we discuss 'How does the CSRD influence firms' management control systems?', using Malmi & Brown's (2008) MCS as a package (5.1). Second, we discuss 'How do firms engage stakeholders using management control systems following the CSRD?', drawing on both the MCS as a package and Morsing and Schultz's (2006) stakeholder engagement strategies.

5.1. How Does the CSRD Influence Firms' Management Control Systems?

As previously stated, researchers tend to look at SR and MCS with one eye (Rahi et al., 2022). However, some studies exist on the influence of SR on MCS (Herremans & Nazari, 2016; de Villiers et al., 2016; Traxler et al., 2023). Consistent with Traxler et al. (2023), we find the major influence of SR on administrative controls. Interestingly, our findings also reveal an impact on governance structures, with management and the board becoming more actively involved in meetings related to the SR process. As Frostenson and Helin (2017) argue, stronger top management involvement is beneficial for the SR process. They advocate for a balanced approach where management provides guidance and strategic integration rather than imposing financial rationality on the SR process (Frostenson & Helin, 2017). This aligns with Company O's insights, which emphasize that elevating sustainability topics to higher levels within the organization enhances structure, clarity, and alignment by concentrating on what is truly strategic and impactful.

Moreover, another shift within administrative controls relates to the increased involvement of the finance department. To the best of our knowledge, this influence of SR on MCS has not been identified before and seems to be unique to the CSRD. Considering the enhanced audit requirements and the requirement to integrate the sustainability report into the annual report, this appears to be a rational choice for streamlining the SR process. While the enhanced involvement of the finance department helps elevate the status of sustainability, which for instance Company M states positively impacts organizational culture around sustainability, the success of this shift depends heavily on organizations' ability to effectively bridge traditional financial priorities with sustainability. Although integrating SR into finance can lead to greater rigor and consistency, it is important that the SR process not merely results in figures that are archived without action. This also relates to some companies mentioning the

need for recruiting new roles with competencies in both finance and sustainability. Battaglia et al. (2016), building on Gond et al.'s (2012) work, argue that sustainability tools, like the sustainability report, must be used interactively to effectively integrate sustainability into organizational strategy. The majority of the interviewees mentioned an increased cross-functional collaboration, also in line with previous literature on SR and MCS (de Villiers et al., 2016; Traxler et al., 2023). This allows for feedback, adaptation, and learning, which fosters both organizational and cognitive integration by promoting socialization between different actors and structures to focus on sustainability (Battaglia et al., 2016). While too early to say anything about the impact of the increased involvement of the finance department in SR, it highlights the importance of both cultural and administrative controls in aligning employees with sustainability goals and fostering collaboration to ensure the CSRD benefits organizations long-term.

Moreover, we identify an influence within what Malmi and Brown (2008) term policies and procedures. However, since the CSRD clearly states that you need policies for all sorts of things relating to sustainability, this comes as no surprise. Rather, the interesting part relates to training. Malmi and Brown (2008) highlight that teaching employees the organization's policies and procedures can act as a control mechanism since it enhances understanding and, thus, compliance with established rules and guidelines. A policy can exist as a document, but if organizations do not train employees and have a process in place for that specific policy, it will have no control effect (Malmi & Brown, 2008). While some organizations highlight how they had implemented various training initiatives to educate employees on the CSRD, the organizations did not mention any training initiatives related to the new policies.

From a cultural controls perspective, the increased awareness of and interest in sustainability following the CSRD also aligns with previous literature (Eccles & Serafeim, 2013; Maas et al., 2016; Traxler et al., 2023). Crutzen et al. (2017) argue that managers more often use informal, cultural controls rather than formal controls to promote sustainability-relevant behavior. This may explain why a majority of the firms in our sample use informal controls such as training and communicating around sustainability following the CSRD. Nevertheless, the CSRD's influence on organizational culture raises the question of why this particular directive has an impact, given that all companies in our sample are experienced in SR. Its broader scope and emphasis on formalization likely foster a shared understanding of sustainability and SR, distinguishing it from previous reporting frameworks. For instance, Company I highlights the mandatory nature of the CSRD, emphasizing how the directive

helps anchor SR as a core business activity, reducing the notion that sustainability is a peripheral or voluntary initiative. What people think of sustainability is closely linked to Gond et al.'s (2012) cognitive dimension, where a shared understanding among organizational members promotes the integration of sustainability. As Battaglia et al. (2016) emphasize, organizations need high integration, particularly in the cognitive dimension for organizations to achieve stable diagnostic and interactive use of MCS for sustainability. It is however important to emphasize that cultural controls are assumed to be slow to change (Malmi & Brown, 2008). As such, although the CSRD has prompted several companies to use more informal controls, it may take time before its effects are actually realized throughout the organizations (Malmi & Brown, 2008).

While the influence of the CSRD on cultural controls follows naturally from the focus on educating employees due to the difficulties with understanding the directive, it can also be traced to other types of more formal controls. Previous literature emphasizes that SR serves as a foundation for planning organizational change toward sustainability (Lozano et al., 2016). Most interviewees highlight that the CSRD does not influence their long-term goals, referring to their previous commitment to both sustainability and SR. Still, in line with Traxler et al.'s findings (2023) several highlight that the CSRD has helped put focus on what actions to take in the long term. However, Traxler et al. (2023) seem to overlook the broader role of planning, focusing primarily on its function in supporting ex-ante decision-making. For planning to be considered controlling, it needs to create goal congruence, where the involvement of employees in the planning process can increase employee commitment to plans (Malmi & Brown, 2008). Several companies mention an increased involvement of employees from various functions in the double materiality assessment, which is used to decide on material topics relevant to the organization's sustainability strategy. As such, the CSRD could have a long-term positive impact by promoting increased employee involvement in the planning process, increasing their buy-in. However, in terms of action planning, several interviewees highlight disruptions in their sustainability work following the scope of the CSRD and the challenges with ensuring compliance. Once again, considering our sample's experience with SR, it highlights the massiveness of the CSRD, implying challenges, especially for companies with fewer resources or experience in SR.

While the disruptions in action planning run the risk of decoupling the report from sustainability work, the CSRD positively influences cybernetic controls. Similar to Traxler et al.'s (2023) findings, the CSRD seems to trigger organizational changes regarding data

collection processes, indicators, or metrics. The majority of the firms highlighted an increased focus on updating their methods for measuring non-financial information. Kerr et al. (2015) emphasize the advantage of MCS in enhancing sustainability measures in the organization, which may enhance transparency and fulfill internal information needs (Maas et al., 2016). However, for cybernetic controls to be effective, behavior needs to be linked to targets (Malmi & Brown, 2008). While some companies report an increased use of KPIs by a broader range of organizational members, most interviewees noted that few new metrics have been introduced, given the early stages of their CSRD implementation. Consequently, the influence on cybernetic controls remains unclear. Moreover, several interviewees highlight a felt pressure to live up to the reporting requirements, which aligns with the limited impact on budgets within these controls. Several companies point out the cost associated with complying with the CSRD, limiting their ability to drive meaningful sustainability change. Although this effect may become less relevant over time as firms gain more experience, it should be carefully balanced with resource allocation decisions to avoid negative effects on sustainability performance.

Similar to what Traxler et al. (2023) find, the CSRD seems to have the least influence on reward and compensation. Although the ESRS requires companies to report on annual total compensation to their workforce, including employee bonuses (EFRAG, 2024), the interviewees did not mention any influence of the CSRD on their reward and compensation systems. Since such controls are closely linked to cybernetic controls, this may be because companies are still in the process of setting up the systems and methods to meet the CSRD's reporting requirements, making it too early for companies to implement any changes. Moreover, following the increased short-term focus on meeting the basic compliance requirements of the CSRD, companies might overlook the opportunity to drive deeper changes in internal compensation structures. Although our findings suggest a limited influence of the CSRD on reward and compensation, most firms in our sample had implemented such controls by tying sustainability to bonuses, which contrasts previous literature (Crutzen et al., 2017; Traxler et al., 2023). Crutzen et al. (2017) discuss how rewards and compensation systems are rarely applied to motivate sustainability behavior within their sample of large European firms. While the authors find that only four out of 17 companies apply such controls, 16 out of 22 companies in our sample already had such controls in place. Crutzen et al. (2017) argue that formal rewards for sustainability may be limited because management prioritizes financial over sustainability goals and because

employees' intrinsic motivation often reduces the need for extrinsic incentives. However, in our sample, this does not appear to be the case. While it is difficult to draw any conclusions on whether this is a result of their previous experience in SR, it reveals an interesting dimension of how firms approach sustainability management.

5.2. How Do Firms Engage Stakeholders Using Management Control Systems Following the CSRD?

Firstly, the information strategy is employed by companies in our study when they believe that they do not need to engage in extensive dialog with some suppliers or customers. As previously mentioned, we chose to focus on those two stakeholder groups as the CSRD requires companies to report on their value chains, suggesting that companies need to consider these stakeholders to a greater extent in their sustainability and SR processes. However, with the complexities of trying to communicate with every actor in the value chain, companies resort to one-way communication towards most suppliers and customers, characterized by managers giving sense to their sustainability work by providing information to stakeholders (Morsing & Schultz, 2006). Following the CSRD, most companies highlight the increased information demands across their value chain, where large customers increasingly require data. Companies inform customers by providing standardized sustainability information and informing suppliers about codes of conduct. Customers can either support or oppose by buying the firms' products or not, while the supplier can either act in line with the policies or not.

By applying Malmi and Brown's (2008) MCS as a package, we identify primarily two control systems - planning and administrative - that companies use to employ the information strategy toward suppliers and customers. Following the short-term focus on meeting reporting requirements, companies overlooked the opportunity to engage in deeper collaborations with suppliers and customers. For instance, action planning was used to guide decisions toward simply informing stakeholders, such as publishing standardized reports to address customer demands under the CSRD. Moreover, some highlighted a need to educate suppliers on the CSRD, implying a low perceived value of their inputs. Consequently, rather than fostering collaboration with less sustainable suppliers, these companies simply informed suppliers about their sustainability agenda, using administrative controls in the form of supplier codes of conduct. This also aligns with previous research stating that companies mature in SR are

more likely to develop new supplier policies through stakeholder engagement (Greco et al., 2015).

Sloan (2009) argues that using stakeholder engagement to control risk limits companies from reaching high sustainability performance, which emphasizes the limitations of the information strategy. While efficient in maintaining high sustainability standards and ensuring short-term compliance goals are met, the information strategy may limit opportunities for broader collaboration across the supply chain. Similarly, Bowen et al. (2010) find that companies using this lowest level of engagement lack any benefits beyond legitimacy. However, as stated by for instance Company F, the ability to share high-quality data provides business opportunities following the CSRD, adding to Bowen et al.'s (2010) findings. Although information sharing represents the lowest level of engagement (Morsing & Schultz, 2006), Dahlmann and Roehrich (2019) point out that a more basic form of engagement based on information is foundational in informing more collaborative approaches towards addressing sustainability topics together with value chain actors. As such, this approach should not be undervalued, as it may help companies make strategic and operational decisions that improve overall sustainability in the long run.

Secondly, the response strategy is employed when companies collect feedback from external stakeholders on their sustainability work through interviews, which implies two-way communication. However, since goals and strategies are not configured jointly with these suppliers and customers, the communication is asymmetric. The companies following the response strategy use inputs to ensure some level of alignment between their assessment and their stakeholders', although the final decision on what topics to focus on resides internally, demonstrating how the companies make sense of feedback to give sense to their SR (Morsing & Schultz, 2006). Due to the challenges of communicating with all suppliers and customers, companies mainly aim for a representative sample in the response strategy.

We identify administrative, planning, and cultural controls as key control systems supporting the response strategy toward suppliers and customers. For example, administrative controls were used to embed stakeholder perspectives in the double materiality assessment through interviews, highlighting the procedural aspect of engagement. This is closely linked to planning controls, where organizations use action planning to structure stakeholder dialogs, specify which stakeholders to engage with, and determine the scope of feedback to be collected. The pre-existing familiarity with sustainability topics and supply chain reporting

emphasized in the interviews further underscores how cultural controls are used to respond to suppliers and customers. While administrative and planning controls are limited in literature connecting MCS to stakeholder engagement, prior studies suggest that organizational culture impacts a company's stakeholder engagement activities (Rodrigue et al., 2013; Boesso & Kumar, 2016). In line with this, our findings show how cultural controls have historically shaped organizations' readiness to engage stakeholders. However, this same familiarity might reduce the perception of engagement as a tool for uncovering new insights. Consequently, companies rely on their familiarity with sustainability topics for the response strategy, framing it more as a routine validation process.

Sloan (2009) argues that interviews enable companies to go beyond simply identifying stakeholders' concerns to understanding their perspectives. However, the interviewees employing the response strategy emphasized how stakeholders were consulted mainly to verify conclusions regarding their materiality assessments. This suggests a more risk-oriented approach to stakeholder engagement, which prevents companies from gaining benefits from such practices (Sloan, 2009). Moreover, Bowen et al. (2010) argue the response strategy's main benefit lies in gaining legitimacy, similar to the information strategy. This, combined with the challenges of communicating with all suppliers and customers, may explain why companies prioritize selecting a representative sample for engagement. Nonetheless, as noted by for example Company N, although firms seek stakeholders' inputs, external stakeholders are not always willing to provide feedback (Kaur & Lodhia, 2019). This presents a challenge, connecting to the points made by Beske et al. (2020). The authors argue that the lack of transparency surrounding firms' materiality assessments might indicate a strategic use of these assessments for legitimacy purposes rather than genuine efforts to engage stakeholders (Beske et al., 2020). While this critique may be relevant, it may also be an oversimplification. Our findings highlight that companies committed to engaging stakeholders may still face low engagement rates, limiting their ability to engage stakeholders.

Lastly, some companies employ the stakeholder involvement strategy when engaging with both suppliers and customers following the CSRD. The involvement strategy rests on a symmetric communication model, emphasizing mutual influence between companies and stakeholders through iterative processes of sense-making and sense-giving (Morsing & Schultz, 2006). The companies employing this strategy highlight how the CSRD brings opportunities by aligning value chain actors around sustainability. For instance, Company G demonstrates this as both its organization and its suppliers evolve through engagement

aiming to reduce Scope 3 emissions. The suppliers and customers with the highest sustainability impact in the value chain are prioritized for building relationships to manage the firms' indirect sustainability impacts, as stated by Company H. By using the involvement strategy, companies co-construct sustainability initiatives to align the value chain and collaborate with stakeholders.

In analyzing this strategy, it is possible to identify how firms use all controls except reward and compensation systems to involve suppliers and customers. The involvement strategy requires the creation of an organizational culture where employees view stakeholders not only as external entities to inform and control but also as partners capable of influencing organizational change. By using cultural controls, companies establish a sense of urgency regarding suppliers with high sustainability impacts. For instance, companies emphasized their selection of high-impact suppliers for deeper collaboration, demonstrating the influence of organizational values in prioritizing issues deemed most critical. The usage of cultural controls for stakeholder involvement is aligned with Rodrigue et al.'s (2013) findings of establishing beliefs of shared responsibilities with stakeholders. Following this, these companies used planning to set strategic goals, which informed cybernetic controls. For instance, Company E emphasized how their purchasers were measured on how many CO2-reduction projects they had with suppliers. These controls were subsequently used to involve suppliers and customers in mutual sustainability efforts, such as product decisions, as stated by Company L. Although still in its early stages, this approach can be seen as driven by long-range planning, where commitment to the established plans was established through the involvement of employees and value chain actors. Furthermore, administrative controls were used to enable stakeholder involvement. For instance, Company B explained that the organizational design facilitated the involvement strategy as the proximity of the sales and sustainability department influenced the degree to which customers were involved. Moreover, administrative controls in the form of governance structure, such as meetings with suppliers and customers, were set up to enable the involvement of both the company and its suppliers and customers.

Sloan (2009) states that engagement for establishing collaboration and learning is characterized by activities that unite managers and stakeholders to enhance the sustainability strategy. As Dahlmann and Roehrich (2019) emphasize, collaborative engagement with upstream and downstream partners is forward-looking and hinges on the previous types of engagement where information is gathered and processed. The long-range planning shows

early evidence of this collaborative environment being initiated as a result of the CSRD between the companies and value chain actors. However, similar to Stocker et al.'s (2020) findings, this more proactive strategy was the most rarely applied following the CSRD. The early stages of the CSRD may explain why this is the case since most firms are currently working on improving data collection from their value chain.

6. Conclusion

The purpose of this study was to explore how the CSRD influences companies' MCS as well as how companies practice stakeholder engagement using MCS. By applying Malmi and Brown's (2008) MCS as a package and Morsing and Schultz's (2006) stakeholder engagement strategies, we answer our two research questions and close the identified research gaps. In this section, the research questions are answered (6.1 & 6.2), followed by our developed framework (6.3), theoretical contributions (6.4), practical contributions (6.5), limitations (6.6), and lastly, suggestions for future research (6.7).

RQ1: How does the CSRD influence firms' management control systems?

RQ2: How do firms engage stakeholders using management control systems following the CSRD?

6.1. How the CSRD Influences Firms' Management Control Systems

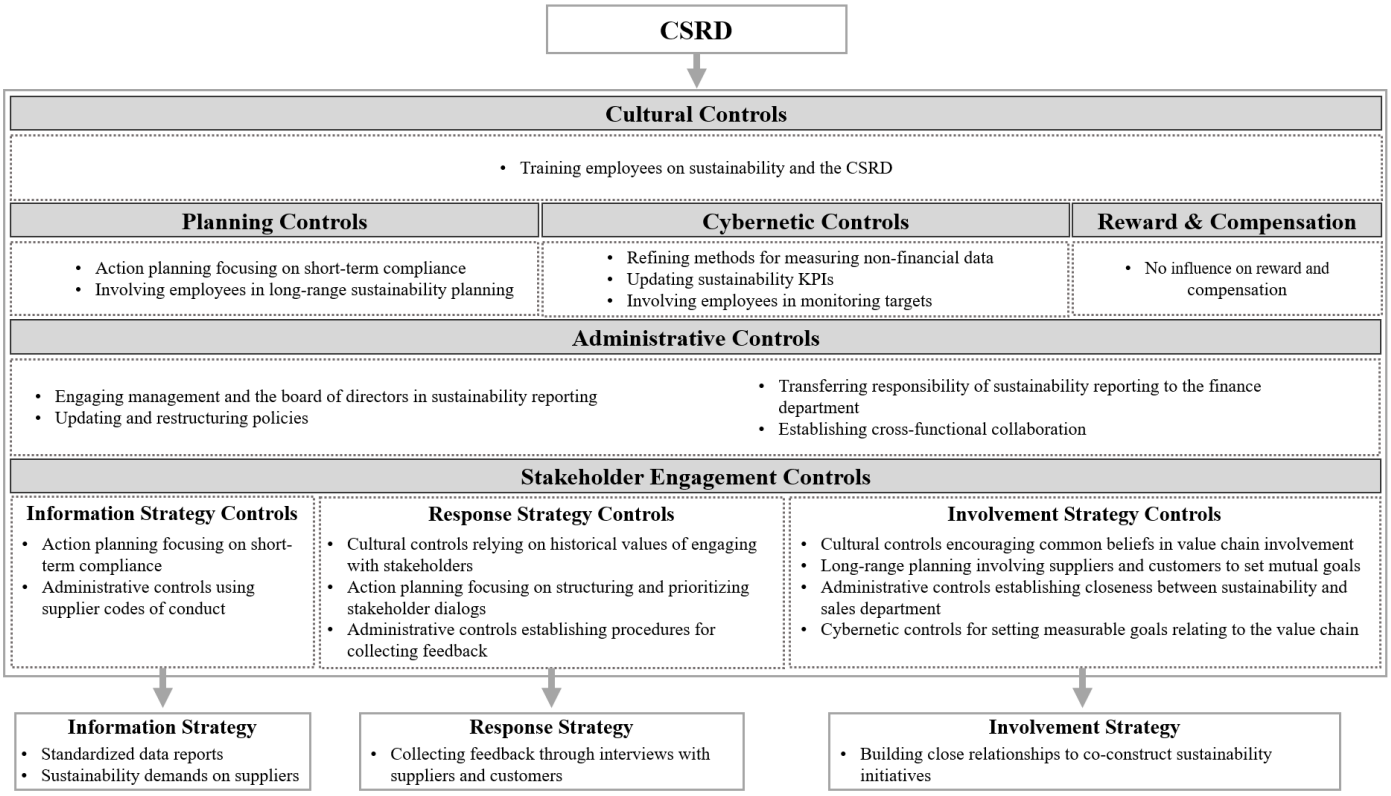
We find how the CSRD influences firms' MCS by exploring both informal and formal controls. The most significant influence is seen within administrative controls, where the CSRD pushes companies to increasingly involve both the board of directors and management as well as the finance department in the SR process, although companies emphasize a continued need for cross-functional collaboration as different departments are responsible for different material topics. Within cultural controls, the CSRD increases organizational awareness of and interest in sustainability, stemming from the increased focus on educating employees on sustainability and the CSRD. This is also strengthened by the shifts in planning controls, as companies are now involving more employees from various functions in the double materiality assessment. However, the short-term focus on compliance causes disruptions in companies' sustainability work. While this positively influences cybernetic controls, leading to more robust methods for measuring non-financial data, it reduces actual sustainability progress in the short term. The low influence of the CSRD on budgets for SR adds to this challenge. Finally, the CSRD does not influence reward and compensation systems. Since such controls are closely linked to cybernetic controls, this may be because companies are still in the process of setting up the systems and methods to meet the CSRD's reporting requirements.

6.2. How Companies Use Management Control Systems to Engage Stakeholders Following the CSRD

By applying our theoretical framework and connecting MCS to stakeholder engagement, we find evidence of MCS being used for the three stakeholder engagement strategies following the CSRD. 16 out of 22 companies employ the stakeholder information strategy for delivering sustainability data to customers and putting demands on suppliers. This strategy is enabled using action planning, focusing on meeting reporting requirements, and administrative controls using supplier codes of conduct to control risk. Furthermore, 17 out of 22 companies are also practicing the stakeholder response strategy for collecting feedback from suppliers and customers on their sustainability work and materiality assessments through interviews. This strategy is enabled using administrative controls by setting up procedures for collecting feedback, which is closely linked to companies' use of action planning to structure and prioritize stakeholder dialogs. In addition, companies rely on their historical culture of engaging with stakeholders in their SR process to encourage feedback collection. Lastly, 7 out of 22 companies have employed the stakeholder involvement strategy following the CSRD to build close relationships with suppliers and customers and co-construct sustainability initiatives. This strategy is enabled by cultural, planning, cybernetic, and administrative controls. Cultural controls are used to shape employees' belief in involving suppliers and customers. Planning controls are used to set strategic goals and involve suppliers and customers in sustainability initiatives. This in turn informed cybernetic controls where companies measured their employees on joint projects which guided their behavior. Lastly, companies use administrative controls to influence organizational members to involve suppliers and customers by establishing proximity between the sustainability and sales departments as well as setting up meetings through their governance structure.

6.3. Developed Theoretical Framework

From the conclusions of our study, the initial framework presented in section 2.5.3 is developed and presented below to include our findings (Figure 4). First, the framework shows how the CSRD influences which controls are used in the new SR process of companies implementing the CSRD. Second, the framework illustrates how stakeholder engagement controls are added to Malmi and Brown's (2008) framework to highlight how different controls enable the three different stakeholder engagement strategies following the CSRD.



'Figure 4. Developed Theoretical Framework

6.4. Theoretical Contributions

Our study aims to fill the identified research gaps introduced in section 2.4. Prior research points to gaps in both how SR influences MCS design and how MCS in turn enable stakeholder engagement. By first studying how MCS are influenced by SR, we add to previous literature and find how the CSRD influences MCS as companies enter a new SR environment. In this regard, we specify how specific controls are used to comply with the CSRD and show how SR can be exploited beyond accountability purposes. In doing so, we also advance the limited body of research on the CSRD. By then connecting MCS to stakeholder engagement strategies, we add to the literature on stakeholder engagement to show how MCS enable companies' to engage with suppliers and customers in different ways. As such, we add a new category of controls to Malmi and Brown's (2008) framework, specifying the specific controls used for stakeholder engagement.

6.5. Practical Contributions

Our findings provide some practical insights for firms implementing the CSRD. To meet the directive's requirements, our study indicates how firms can use MCS to structure internal

control for meeting SR requirements and engaging with stakeholders in the value chain. Based on a sample of firms experienced in SR, our findings suggest that implementing the CSRD entails a complex process that requires extensive resources. The influence of the CSRD on firms' controls for activities underpinning SR provides some initial guidance on how managers can use MCS when adapting to the directive. Specifically, our findings highlight how most firms are transferring responsibility for SR to the finance department. Moreover, our findings point to the importance of organizational culture as a control for both enabling the efficient use of SR for sustainability and encouraging employees to engage with value chain actors. As the CSRD is implemented in phases, this area will only gain importance going forward, further emphasizing the practical contributions of this study.

6.6. Limitations

Despite the above contributions, our findings do not go without limitations. First, our study is conducted on a sample of 22 companies within a variety of different industries. Hence, although not explicitly considered in our study, industry differences could influence our findings to some degree. For instance, some industries generally include companies with higher emissions while other industries have longer value chains. This means that the influence of the CSRD could have some industry-specific effects which are not considered in our findings. Second, the implementation of the CSRD is in its infancy, which limits the findings to some extent. While it is interesting at this point to study how some of the first companies affected by the new directive are using MCS to both adapt to the new reporting environment and exploit SR as a control for sustainability performance, we acknowledge that other findings may become apparent when companies have come further in their implementation. Lastly, we only interviewed one Sustainability Manager or Sustainability Reporting Manager in each company. Malmi and Brown (2008) emphasize that viewing MCS as a package entails the idea that different systems may be introduced by different organizational members at different times. Hence, our findings did not include the perspective of other employees which limit our understanding of other controls that may exist simultaneously in each company. This could reveal insights into the effectiveness of the MCS and whether the packages of controls in each company are complete.

6.7. Future research

In this study, we find how companies' MCS are influenced by the CSRD and how it enables stakeholder engagement by studying 22 companies. Future researchers should consider

conducting a single case study and interview several actors within one organization, such as CEOs, finance associates, sales and purchasing staff, as well as customers and suppliers of that specific firm. A single case study would provide deeper insights into the width and depth of firms' MCS in the context of the CSRD. Furthermore, we encourage future researchers to focus on firms in a specific industry as this would provide knowledge on how different value chain characteristics and industry-level factors impact firms' MCS for SR and stakeholder engagement. Moreover, as smaller companies will have to report in line with the directive going forward, it would be interesting to study how SMEs cope with the changes. The budget constraints and resource-intensive processes described by large companies in our study suggest that smaller companies will face even greater challenges.

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8. Appendices

Appendix I. Information about Interviews and Interviewees

Company	Industry	Role	Date	Duration	Language
A	Infrastructure	Sustainability Manager	3/10-2024	52:33	Swedish
B	Healthcare	Sustainability Manager	3/10-2024	30:13	Swedish
C	Retail	Sustainability Manager	8/10-2024	28:19	Swedish
D	Automotive	Sustainability Manager	10/10-2024	39:08	Swedish
E	Energy	Sustainability Manager	17/10-2024	38:50	Swedish
F	Packaging	Sustainability Manager	18/10-2024	40:49	Swedish
G	Telecom	Sustainability Reporting Manager	23/10-2024	49:07	English
H	Brewery	Sustainability Manager	24/10-2024	31:11	Swedish
I	Mining	Sustainability Manager	25/10-2024	33:45	Swedish
J	Construction	Sustainability Manager	29/10-2024	39:54	Swedish
K	Retail	Sustainability Manager	1/11-2024	44:02	Swedish
L	Wholesaler	Sustainability Manager	1/11-2024	43:20	Swedish
M	Electrical equipment	Sustainability Manager	5/11-2024	32:11	Swedish
N	Retail	Sustainability Reporting Manager	5/11-2024	41:20	Swedish
O	Forestry	Sustainability Reporting Manager	6/11-2024	32:10	Swedish
P	Real estate	Sustainability Manager	6/11-2024	44:24	Swedish
Q	Logistics	Sustainability Manager	7/11-2024	38:16	Swedish
R	Financial services	Sustainability Manager	7/11-2024	32:57	Swedish
S	Manufacturing	Sustainability Reporting Manager	15/11-2024	42:31	Swedish
T	Energy	Sustainability Manager	18/11-2024	43:10	Swedish
U	Mining	Sustainability Manager	19/11-2024	43:40	Swedish
V	Industrial Machinery	Sustainability Manager	22/11-2024	42:11	Swedish

Appendix II. Interview Guide

Introduction

- Brief introduction of ourselves and our research topic.
- Ask for permission to record.

Warm-up Questions

- Could you tell us a bit about yourself and your role in the company?
- Could you briefly tell us about your company's sustainability strategy?
- How have you worked with implementing the CSRD so far?

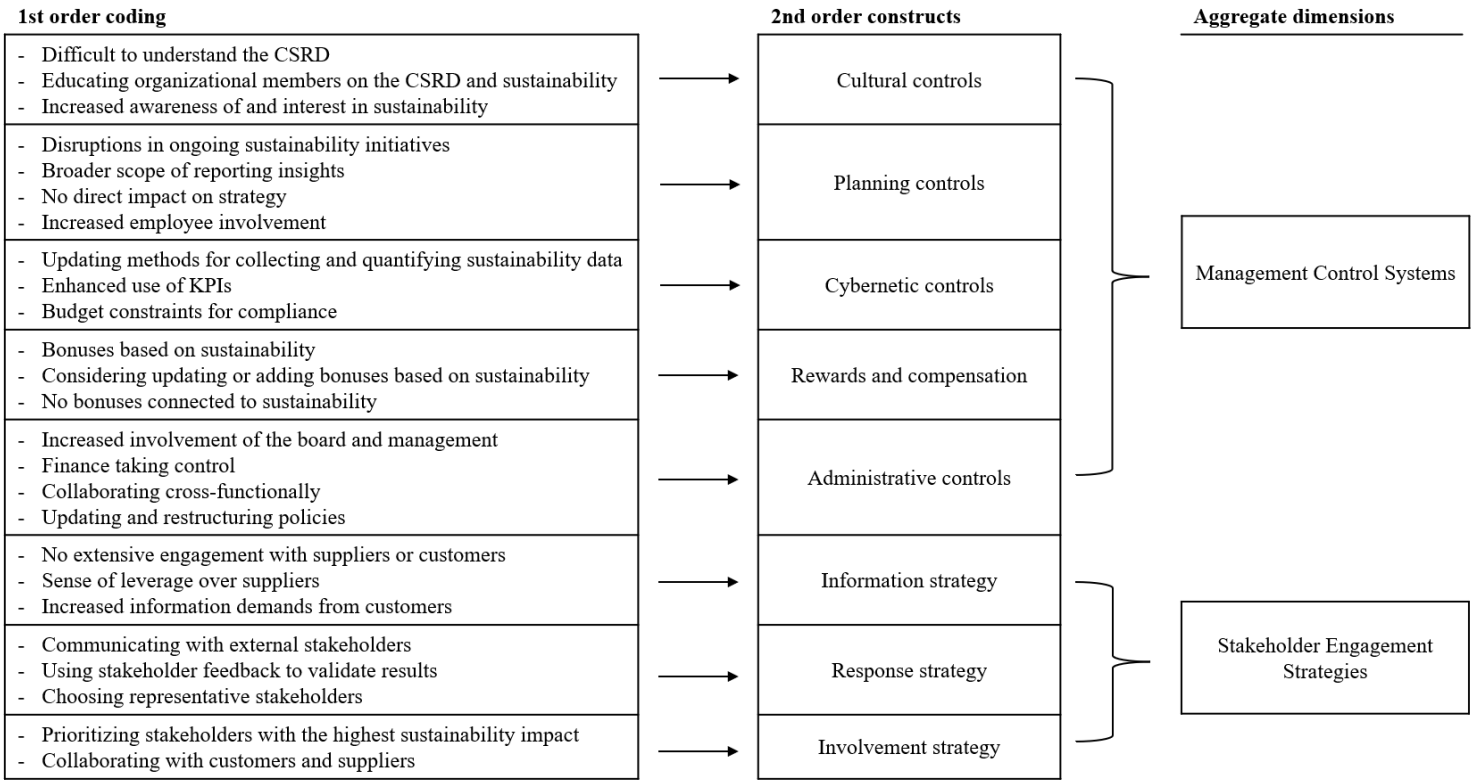
Management Control Systems and Stakeholder Engagement

- In what ways have your organization experienced cultural differences following the CSRD?
- How is sustainability communicated throughout the organization following the CSRD?
- How would you say that the CSRD's reporting requirements on the value chain has affected your approach towards customers and suppliers?
- How have you worked with identifying material topics in your upstream and downstream value chain?
- How are you collecting inputs from suppliers and customers on your sustainability strategy and reporting?
- How does the CSRD influence your sustainability planning in the short- and long run?
- To what extent are suppliers and customers integrated in the strategic planning process for sustainability-related goals following the CSRD?
- What changes in performance measurement systems (e.g., KPIs) have been made in your organization following the CSRD?
- How do you integrate customers and suppliers in your performance measurement systems?
- How has your organization's compensation system changed following the CSRD?
- To what degree are compensation systems used towards suppliers and customers?
- How have you structured reporting responsibilities following the CSRD?
- How have you organized the work with your identified material topics within your organization?
- How have your organization's routines and policies around sustainability changed with the introduction of the CSRD?

Concluding Questions

- Is there anything you want to add or believe is of importance that we have not yet talked about?

Appendix III. Coding Structure



Appendix IV. Mapping Concepts and Interviews

	Companies																					
1st order concepts	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	
Difficult to understand the CSRD	x	x					x	x			x	x	x		x		x		x	x		x	12
Educating organizational members on the CSRD and sustainability	x	x	x		x		x		x	x	x	x	x				x	x	x		x	x	15
Increased awareness of and interest in sustainability	x	x	x	x	x	x	x		x		x	x	x	x	x	x		x	x		x	x	18
Disruptions in ongoing sustainability initiatives	x		x	x		x	x	x	x	x	x		x	x			x	x	x	x		x	16
Broader scope of reporting insights	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x		x	x	x	x	x	21
No direct impact on strategy				x	x	x			x	x	x	x	x		x	x	x		x	x	x		14
Increased employee involvement	x	x	x		x		x	x	x	x	x	x		x	x	x		x				x	15
Updating methods for collecting and quantifying sustainability data	x			x	x	x		x	x	x			x		x	x	x		x	x	x	x	15
Enhanced use of KPIs	x	x			x	x				x	x			x	x					x	x	x	11
Budget constraints for compliance			x	x						x	x		x	x	x		x	x	x		x	x	12
Bonuses based on sustainability	x	x		x		x	x		x	x		x	x		x	x			x		x	x	14
Considering updating or adding bonuses based on sustainability	x			x		x			x	x	x			x								x	8
No bonuses connected to sustainability			x		x			x			x			x			x	x		x			8
Increased involvement of the board and management	x	x		x	x	x	x	x	x	x		x	x	x	x	x	x	x	x	x	x		19
Finance taking control		x	x		x	x	x		x	x	x	x	x		x	x	x	x	x		x		16
Collaborating cross-functionally	x						x	x	x	x			x	x			x	x	x	x	x	x	13
Updating and restructuring policies	x	x	x		x		x	x	x	x	x	x		x	x		x		x	x	x	x	17
No extensive engagement with suppliers or customers	x	x	x	x	x		x		x	x	x	x		x	x	x	x				x	x	16
Sense of leverage over suppliers	x	x					x		x		x		x	x			x			x	x		10
Increased information demands from customers				x		x	x	x	x	x		x			x	x	x			x			11
Communicating with external stakeholders to collect feedback	x	x	x	x	x	x	x	x	x		x		x	x	x	x			x	x		x	17
Choosing representative stakeholders	x	x	x	x	x	x	x	x	x	x		x	x		x	x	x				x	x	17
Prioritizing stakeholders with the highest sustainability impact		x			x		x	x		x		x							x				7
Collaborating with customers and suppliers		x			x		x	x		x		x							x				7
	17	16	12	13	16	13	18	14	18	19	16	15	15	14	16	12	15	10	16	13	15	16	

9. AI Appendix

9.1. Generative AI Description

In the writing process of this thesis, three different AI tools were used: ChatGPT-3.5, Grammarly, and NotebookLM. The following section describes the usage purpose, contributions, risks, risk mitigations, and insights gained from using each tool.

ChatGPT-3.5 was used in the study to improve formulations and grammar when writing texts. Importantly, it was not used for writing complete sentences or as a tool for analysis. The AI tool increased the quality of the study by suggesting which words to use to express a thought, enhancing accuracy and clarity. There is a risk of incorrect outputs when using ChatGPT-3.5, which might guide the user in the wrong direction. This risk was mitigated by avoiding using the tool as a source of information and continuously double-checking all outputs. Furthermore, from using the tool in our writing process, we gained insights into it being a good complementary tool to quickly gain answers, e.g., which word to use to explain a thought best. However, from briefly testing it as a tool for finding academic papers, we early realized its shortcomings, which come naturally with large language models. When prompted to suggest academic papers, there is a risk of ChatGPT suggesting non-existing papers.

Grammarly was used to detect spelling and grammar errors. Thus, by getting assistance from the tool in finding misspellings, the aim was to enhance the quality and the perceived trustworthiness of the paper. When proofreading parts of the study, there is a risk of not detecting minor errors. Hence, the AI tool facilitated this process for us. As with prior discussions about the AI tool, there is a risk of the tool producing incorrect outputs and suggesting changes that harm the quality of the texts. For example, Grammarly consistently suggested referring to 'MCS' in singular form, even though the term represents multiple management control systems. Thus, in every situation in which the tool was used, the suggested changes were analyzed in their full context to ensure the use of inaccurate descriptions. Furthermore, by using the tool, we gain insights into its usefulness in detecting spelling and grammar errors; however, it must be used cautiously as inaccurate suggestions occur.

NotebookLM was used in the early stages of our thesis writing process as a quick way of gaining an overview of different topics. By prompting the tool to summarize different academic papers, we increased our understanding of a research area on a high level. Thus, the

thesis's quality was increased as many papers and alternative research areas were explored efficiently while only being performed by two authors. However, there are risks connected to the tool as it can make false conclusions about what papers contain and make too narrow summaries. When summarizing an area, there is the risk of missing important details, which was out of our control using this tool. Hence, to mitigate this risk, we only used the tool in the early phases of exploring a new topic to get an overview, and then, when deep-diving into an area, we read the entire papers ourselves. By using the tool, we gained insights into the value of being able to efficiently go over several papers while at the same time realizing that there is still a need to thoroughly read papers to achieve a deep understanding and proof-checking the tools outputs.

9.2. Generative AI Sources

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Grammarly. (2024). Grammarly (Dec 6 version) [Large language model].

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Google. (2024). NotebookLM (Dec 6 version) [Large language model].

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