

An investigation into Swedish organizations’ Sensemaking of Materiality under the Corporate Sustainability Reporting Directive

Adam Zippis (25872) & Arvid Lind (25614)

Abstract: Materiality is the leading principle for organizations to figure out, decide and report on sustainability issues. The lack of consensus on how Materiality should be conceived and applied, arguably leads to reduced transparency, reliability and comparability of organizations’ sustainability efforts. After calls for increased regulation and standardization, the European Union (EU) has actualized the Corporate Sustainability Reporting Directive (CSRD), including the European Sustainability Reporting Standards (ESRS) with its evolved principle of Double Materiality. This study explores how seven Swedish for-profit organizations understand and operationalize Materiality under the CSRD. We analyze their processes and practices for Materiality through sensemaking, to understand if and how sensemaking is evident and whether Materiality is harmonized or not across organizations. Our findings show that organizations require ongoing and constant sensemaking to conceive of and apply Materiality already at perception of sustainability framework up until their strategic actions. Furthermore, we illustrate that the unique sensemaking process of each organization, based on their organizational context, leads to different comprehensions of what Materiality is and how it should be utilized. This suggests that there is no one-size-fits-all when it comes to Materiality, and that increased regulation and standardization may not be the answer to harmonization between organizations.

Keywords: Sensemaking, Materiality, CSRD, Sustainability

Supervisor: Henning Christner, Assistant Professor, Department of Accounting

Acknowledgements: We want to express our gratitude towards all the interviewees who dedicated their time and shared valuable insights essential to this study. We also want to thank our supervisor for the support and feedback provided throughout the writing process.

Table of Contents

1. Introduction	3
2. Prior Research and Theory	5
2.1 Domain	5
2.1.1 Sustainability Accounting and Materiality	5
2.1.2 Materiality and Prior Tensions	6
2.1.3 The calls and answer for harmonization	8
2.1.4 Research Gap	10
2.2 Theorization	10
2.3 Theoretical Framework	13
3. Research Methodology	15
3.1 Research Design	15
3.2 Data Collection	16
3.3 Data Analysis	18
4. Empirical Analysis and Findings	19
4.1 Background and Context	19
4.2 Creation	20
4.2.1 The CSRD as a trigger for sensemaking	20
4.2.2 Bringing the CSRD into the organizational agenda	22
4.2.3 Conceptualizing materiality off the cues of the CSRD	23
4.3 Interpretation	24
4.3.1 Contextualizing materiality to identify sustainability topics	24
4.3.2 Synthesizing one coherent outcome of what is regarded material	27
4.4 Enactment	30
4.4.1 Acting on the material outcome	31
4.4.2 New opportunities and constraints moving forward	33
5. Discussion	34
6. Conclusion	39
6.1 Summary of Contributions	39
6.2 Limitations of Study	40
6.3 Further Research	41
7. References	42
8. Appendix	46
8.1 Appendix A: Interview guide	46
8.2 Appendix B: Organization Interviews	48
8.3 Appendix C: Expert interviews	48
8.4 Appendix D: The use of generative AI	49

1. Introduction

Climate change is without a doubt one of, if not the greatest challenge we face as a human species. For at least half a century, scientists have worked collectively to bring global warming, and its consequences for life on Earth, to the forefront of civic discourse and the attention of decision makers (Ripple et al., 2020). Avoiding the path which leads to irreversible ecological collapse, scientists within sustainability call for systemic long-term changes to our economic systems (Fetting, 2020). In our current economic system, they place corporations at the heart of environmental harm (Dahlmann, 2019). The need for sustainability accounting has therefore never been more evident, with an array of stakeholders now demanding that policy-makers further mandate and regulate sustainability disclosure in organizations (Rimmel, 2025).

Sustainability reporting standards have been issued in the past decade by various sustainability organizations and committees (Garst et al., 2022), but the voluntary nature of them and the variations between them allows for organizations' sustainability reports to form in vastly different ways (Adams et al., 2021). The principle of materiality, which has a long-standing history within financial accounting, has made its way into sustainability accounting and into the various sustainability reporting standards. While materiality is intended to be utilized as a tool for organizations to identify, assess and report on the most significant sustainability issues associated with the organization, there lacks consensus between organizations on how to do so. Free discretion over materiality allows organizations to paint themselves in the most favorable light while prioritizing whatever financial considerations they prefer above any societal sustainability concerns. This weakens the informational value of sustainability reports to stakeholders and ultimately causes further harm to people and the planet (Garst et al., 2022; Puroila & Mäkelä, 2019). Hence, with time, the calls for increased regulation, standards, frameworks, tools and guidance on materiality and sustainability disclosure have only gotten louder and more urgent (Bolt & Tregidga, 2023; Giacomini et al., 2025).

In 2019, the EU responded to the increased global attention of environmental, social and governance (ESG) issues by publishing the Green Deal. This roadmap was proposed as a just and fair transition into a new sustainable and circular economy (European Commission, 2019). As part of the deal, the EU announced the CSRD in 2022 to mandate and standardize the sustainability disclosure of EU organizations through the ESRS (European Union, 2022).

With this new framework, the principle of materiality evolved into the principle of double materiality, defined and described by the European Financial Reporting Advisory Group (EFRAG) in their guidelines (EFRAG, 2023). Having already amended the CSRD through the Omnibus package, the EU is set to announce further changes within this package (Finansinspektionen, 2025).

With the CSRD commencing, furthermore organizations are expected to adhere to the regulations and apply the double materiality principle in their sustainability efforts. Our study therefore sets out to explore if and whether organizations under the CSRD, a standardized and mandated framework, conceive and apply materiality in a harmonized fashion. We engage in our research with the aim of answering the following research question: “How do Swedish organizations mandated by the Corporate Sustainability Reporting Directive make sense of Materiality?”. Through our analysis, we theorize our findings with the use of sensemaking, an underexplored lens within the research area of materiality. We choose to go further than prior literature on materiality, aiming to understand how organizations make sense of materiality across the entirety of their processes and practices. This includes perception of the concept, application through assessment and utilization in sustainability reporting and strategic actions. To understand the phenomenon, we interview seven Swedish for-profit organizations mandated by the CSRD and set to report according to the ESRS this reporting period.

Our findings show that due to the unique context of each organization and the sensemaking within them, there is no one-size-fits-all method for materiality within sustainability. The level of flexibility granted organizations in the standards ultimately prevents universal methods for consistency in materiality to exist. Our contributions suggest that despite standardization and mandated regulations in organizational sustainability, there lacks harmonized perception and application of materiality. The existence of various voluntary sustainability standards was set as a reason for diversity in sustainability accounting, but we show that the differences surface regardless of the standardized and mandated framework which is the CSRD. These differences are due to the sensemaking in organizations based on a vast set of cues embedded in the materiality processes. In each step along the way, new cues of information are formed and interpreted, changing the sustainability trajectory of the specific organization. We go further by illustrating that materiality is not only evident and comprehended while defining, assessing and reporting, but already when perceiving the sustainability framework until the planning of sustainability actions. While prior literature views organizations’ concept of materiality to be the first step of divergence, we show that

differences between organizations surface already at apprehension of the regulations and standards. Furthermore, we contribute to earlier research by mapping the sensemaking journey through creation, interpretation and enactment throughout the materiality processes and practices of organizations. Through intersubjectivity and shared meaning, ambiguity and uncertainty is managed by organizational members. Only by co-combining prior beliefs and assumptions with new cues of information, an organization is able to generate one coherent outcome of materiality, in the assessment, the report and the greater sustainability strategy and actions. We thus make clear that sensemaking is vital in each step of the materiality process and that materiality extends from conceptualizing the frameworks all the way to strategic actions.

2. Prior Research and Theory

2.1 Domain

2.1.1 Sustainability Accounting and Materiality

Financial reporting has long adhered to the principle of materiality, defined in accounting literature as *“the relative, quantitative importance of some piece of financial information, to a user, in the context of a decision to be made”* (Frishkoff, 1970). While materiality in financial reporting primarily focuses on financial considerations in the interest of shareholders and investors, materiality in sustainability reporting is intended to reflect a broader set of considerations in the interest of a broader set of information users (Puroila & Mäkelä, 2019; Rimmel, 2025; Ruiz-Lozano et al., 2021). In sustainability reporting, the ESG aspects of organizations are reflected with a multitude of stakeholders in mind such as customers, suppliers, employees, governments and society (Puroila & Mäkelä, 2019; Rimmel, 2025; Vollmer, 2024). More recently, materiality in sustainability has evolved into double materiality, taking the perspective of both financial materiality and impact materiality. An organization is thus expected to assess, disclose and act not only on the materiality of the sustainability matters which affect an organization’s financials, but also an organization’s sustainability-related impact on people and the planet. Taking both financial materiality and impact materiality into account is what defines the concept known as double materiality (Garst et al., 2022; Giacomini et al., 2025).

The complex, uncertain and evaluative nature of sustainability issues renders materiality no easy task (Garst et al., 2022). Since financial considerations have dominated the perspective in the past decades, and the voluntary nature of regulations within sustainability have proved unsuccessful in incentivizing organizations, there is an absence and underdevelopment of methods for materiality within sustainability accounting today (Adams et al., 2021; Garst et al., 2022; Rimmel, 2025). How does one define which considerations are important or not, how important they are and to whom, as well as on what to report on or not, and to what extent? Despite the development of various sustainability reporting standards and guidelines designed to support organizations in this fundamental process, there lacks consensus on how materiality is conceived, applied and reported on (Garst et al., 2022; Giacomini et al., 2025; Puroila & Mäkelä, 2019; Ruiz-Lozano et al., 2021). The lack of both mandated regulation and standardization permits organizations to freely exercise discretion over materiality. This aspect possibly favors financial interests of the organization over broader sustainability concerns (Garst et al., 2022; Rimmel, 2025; Rowbottom, 2023; Vollmer, 2024). The matter has alarmed researchers in sustainability, as consequences include issues in credibility, transparency, accountability and comparability of sustainability reports which in turn are likely to have concrete and considerable societal consequences on climate mitigation and sustainable value creation (Giacomini et al., 2025; Puroila & Mäkelä, 2019; Ruiz-Lozano et al., 2021). Recognizing the organizational tensions in materiality may provide clarity into how harmonization of materiality within sustainability accounting could come to develop (Garst et al., 2022; Ruiz-Lozano et al., 2021).

2.1.2 Materiality and Prior Tensions

The interpretation of what materiality is influences how all the other steps in the assessment are managed, and in turn affects the outcome of material sustainability topics and the content of the sustainability report (Cooper & Michelon, 2022; Garst et al., 2022). Despite materiality being the guiding principle for sustainability reporting, the available standards differ in how they define the concept (Bolt & Tregidga, 2023; Edgley, 2014; Garst et al., 2022; Puroila & Mäkelä, 2019). Furthermore, interpretations and understandings of materiality vary among organizations and users who hold different assumptions of the concept (Giacomini et al., 2025; Lehner et al., 2022; Puroila & Mäkelä, 2019). Without one true account of what materiality is, the concept remains ambiguous and contested (Bolt & Tregidga, 2023). Heterogeneous interpretation of materiality by organizations and regulators alike, inevitably

leads to various methods of applying and assessing materiality (Adams et al., 2021; Garst et al., 2022; Puroila & Mäkelä, 2019; Ruiz-Lozano et al., 2021).

Once the definition of materiality is chosen and the concept of materiality is interpreted, organizations compose a list of ESG topics to consider for materiality. These topics are compiled by taking account of the organizational context and environment, including the sustainability standard and stakeholders (Garst et al., 2022; Ruiz-Lozano et al., 2021). Stakeholders concern both internal stakeholders such as different department employees and management but also external stakeholders such as suppliers, consumers, communities and authorities (Giacomini et al., 2025; Ruiz-Lozano et al., 2021). Materiality provides value only as an inclusive practice within the organizational context (Cooper & Michelon, 2022; Puroila & Mäkelä, 2019), but who to involve and how to involve them proves to be difficult (Vollmer, 2024). Due to the complexity and diversity of both sustainability topics and stakeholders, this investigation is very comprehensive. However, organizations often underestimate how sustainability issues and their relevance change over time, and thereby compose a list of recurring topics without reviewing stakeholders or sustainability issues (Giacomini et al., 2025; Puroila & Mäkelä, 2019; Ruiz-Lozano et al., 2021). If stakeholder interests and sustainability topics are not explored anew or considered at all, or understood through inaccurate information sources, certain topics may falsely be recognized as relevant (Brown & Dillard, 2014; Puroila & Mäkelä, 2019). Any selection of topics by the organization is therefore considered a trade-off, where topics and issues reflecting the interests and demands of certain stakeholders are prioritized over others, ultimately affecting the materiality outcome (Garst et al., 2022; Puroila & Mäkelä, 2019; Rowbottom, 2023).

After exhausting the list of topics, materiality is to be evaluated based on applicable information sources (Garst et al., 2022; Ruiz-Lozano et al., 2021) and assigned values and probabilities even if no empirical basis is available (Brown & Dillard, 2014). The same criteria are scored for each topic, sub-topic and impact, risk and opportunity (IRO) through different units of measurement, based on varying degrees of qualitative and quantitative evidence, taken from more or less appropriate internal and external information sources (Puroila & Mäkelä, 2019; Ruiz-Lozano et al., 2021). Finally, the thresholds and determination of materiality of each topic, sub-topic or IRO is subjectively decided on by the organization (Edgley, 2014; Giacomini et al., 2025; Puroila & Mäkelä, 2019).

How an organization goes on to report on material topics and its materiality processes and practices in the sustainability report remains unclear (Garst et al., 2022; Puroila & Mäkelä, 2019; Reimsbach et al., 2020). The most common way of displaying material topics in the sustainability report is through a materiality matrix, but this visual representation understates the complexity of topics, wrongly portrays the assessment as value-free, compares incommensurable topics and omits crucial information (Garst et al., 2022; Puroila & Mäkelä, 2019; Ruiz-Lozano et al., 2021). When organizations decide on what information to include and exclude, as well as the quantity and quality of materiality disclosure in the sustainability report, judgement and cherry-picking is seen to prevail (Puroila & Mäkelä, 2019; Ruiz-Lozano et al., 2021). In pursuit of enhancing the report, organizations often present only the final materiality outcome, with less material considerations filtered out from discussion and disclosure (Bolt & Tregidga, 2023; Giacomini et al., 2025; Puroila & Mäkelä, 2019). The incomplete and imprecise descriptions of the steps and decisions undertaken in the assessment of materiality complicate the understanding of sustainability reports by information users (Bolt & Tregidga, 2023; Garst et al., 2022; Puroila & Mäkelä, 2019; Ruiz-Lozano et al., 2021). Even if transparently disclosed, the underlying processes and practices of assessing materiality are difficult to verify for most stakeholders (Adams et al., 2021; Ruiz-Lozano et al., 2021). The balance between a clear and concise report and managing to represent the complexity of the assessment of materiality, thus remains a challenge (Garst et al., 2022; Ruiz-Lozano et al., 2021). Furthermore, it is unclear whether organizations address and act on their topics considered material (Hahn et al., 2014). Since the materiality outcome is fundamental to the sustainability consequences of the organization and can add real value to the organization's strategic actions within sustainability, it is vital that the organization actively responds to the topics determined as material (Ackers & Eccles, 2015; Cooper & Michelon, 2022).

2.1.3 The calls and answer for harmonization

While there is little evidence today of its effect (Ruiz-Lozano et al., 2021), there have been calls for increased regulation, standards, frameworks, tools and guidance on materiality by researchers, organizations and regulators alike (Bolt & Tregidga, 2023; Garst et al., 2022; Giacomini et al., 2025). As long as there lacks universal methods for consistency in materiality, regulators must allow for a certain level of flexibility (Edgley, 2014; Giacomini et al., 2025; Puroila & Mäkelä, 2019). However, due to the complexity of materiality within

sustainability issues, and the context- and time-specific nature of topics, sustainability accounting may never be able to suit each organization in a one-size-fits-all (Puroila & Mäkelä, 2019; Ruiz-Lozano et al., 2021).

Adopted by the EU in 2022, the CSRD came into effect in different EU member states over the following two years (European Union, 2022). Sweden enforced the directive when implementing it into country law on the first of July 2024 (Finansinspektionen, 2025). The CSRD was introduced to replace the preceding Non-Financial Reporting Directive (NFRD) (Directive 2014/95/EU, 2014), as the European Council deemed the NFRD no longer suitable to the sustainable transition of the economy (Council of the European Union, 2022). The CSRD signifies an expansion of the regulatory frameworks within sustainability and the scope of organizations that are mandated to comply with them. The CSRD was accompanied by the standardization of the ESRS and guidelines provided by the EFRAG. The intended consequences were to provide financial markets with relevant, transparent and comparable sustainability information to increase the flow of private capital into the sustainable transition (Council of the European Union, 2022; FAR, n.d.-a).

The CSRD marked the onset of double materiality, together with EFRAG guidelines on how to apply and report on it (EFRAG, 2024). The double materiality definitions by the EFRAG are illustrated in Table 1 below (EFRAG, 2023):

Concept	Definition
Double Materiality	A sustainability matter is “material” when it meets the criteria defined for impact materiality or financial materiality, or both.
Impact Materiality	A sustainability matter is material from an impact perspective when it pertains to the undertaking’s material actual or potential, positive or negative impacts on people or the environment over the short-, medium- or long-term.
Financial Materiality	A sustainability matter is material from a financial perspective if it triggers or could reasonably be expected to trigger material financial effects...risks or opportunities... on the undertaking’s development, financial position, financial performance, cash flows, access to finance or cost of capital over the short-, medium- or long-term.

Table 1: EFRAG definition of double materiality, impact materiality and financial materiality.

The organizational implementation of the CSRD has been a gradual process, with larger organizations and certain industries mandated to comply in the first wave, followed by two waves encompassing additional organizations of smaller size (FAR, n.d.-b). Since its inception however, the CSRD has faced criticism for being too regulatorily complex and

administratively heavy. The criticism has resulted in the Omnibus proposal, extending the deadline for organizations in the later waves to comply and implement the necessary changes (Finansinspektionen, 2025). Additional changes to the CSRD through updates to the Omnibus are anticipated for the end of 2025, rendering uncertainty in organizations concerning the precise regulations and standards they are expected to abide by (European Union, 2025).

2.1.4 Research Gap

Prior studies on materiality within sustainability accounting primarily explore how materiality is understood and applied differently by organizations due to various, often voluntary, sustainability standards. As a novel contribution to the field, we aim to demonstrate how materiality is understood and applied by organizations since the inception of the CSRD, as organizations now are mandated to abide by the same sustainability regulation, standard and guidelines regarding materiality. Hence, we engage in our research with the aim of answering the following research question: How do Swedish organizations mandated by the Corporate Sustainability Reporting Directive make sense of Materiality?

Furthermore, prior research mainly investigates the concept, application or reporting of materiality. In contrast, we aim to examine the full processes and practices of materiality through concept, application, reporting and actions. Finally, concepts within sustainability accounting are commonly examined using stakeholder theory, legitimacy theory and institutional theory (Hahn et al., 2014; Rimmel, 2025). Our study on the other hand, applies sensemaking to materiality as an underexplored lens and framework within the research area of materiality. The research conducted is expected to be of relevance to both standard setters, organizations and researchers for future investigation, analysis and understanding of the materiality phenomena. Hopefully, our study can contribute to new understanding, insights or perspectives within both materiality research and sensemaking research.

2.2 Theorization

“Sensemaking is how people bring order and meaning to sense-impressions” (Weick, 1995). Sensemaking holds a social constructivist view of the world, in which there exists no objective or absolute impression of reality. Striving for complete information rather paralyzes than aids discovery of what is. However, by seeking supportive information through cues, it is possible to co-construct a coherent and understandable sense of a situation with others. This

plausible rather than accurate interpretation through social interaction, is needed in order to advance in this world (Weick, 1995). Sensemaking is especially salient under ambiguous or uncertain circumstances. Since organizational life is full of confusing events, sensemaking is a core activity for organizations to produce specific outcomes (Maitlis & Christianson, 2014; Sandberg & Tsoukas, 2015). When a novel or unexpected event occurs, it forces organizations and their members to extract, interpret and act on information cues as a basis for advancement within their altered organizational environment (Maitlis & Christianson, 2014). Sensemaking thus enables organizations to create a plausible account of what is happening (Maitlis & Sonenshein, 2010), influence their situation (Maitlis & Christianson, 2014), and ultimately restore order to their environment (Sandberg & Tsoukas, 2015).

The first part of sensemaking relates to creation, in which an event of uncertain or ambiguous nature is perceived (Maitlis & Christianson, 2014; Sandberg & Tsoukas, 2015). The event contains cues of information which require explanation, setting off the sensemaking process in organizational members. The event is cause for confrontational discrepancies, often violates expectations, provokes confusion and causes feelings of disorientation and urgency (Maitlis & Christianson, 2014; Maitlis & Sonenshein, 2010). The new environment triggered by the event is so unpredictable and dynamic that existing frameworks have lost their meaning. To recreate meaning and move forward, the event, cues and environment need to be identified and explored with those internal and external to the organization. By building networks of relevant people and bringing them together, the cues are brought into the organizational agenda as a context for understanding them (Maitlis & Christianson, 2014). Therefore, creation in sensemaking ultimately relates to constructing an initial sense of the very situation one attempts to comprehend (Maitlis & Christianson, 2014; Sandberg & Tsoukas, 2015).

The second part of sensemaking relates to interpretation, in which meaning and understanding of the organizational context in relation to the new environment is formed (Maitlis & Christianson, 2014; Sandberg & Tsoukas, 2015). Complexity can be reduced by breaking down tasks into smaller pieces and forming simple frameworks to apply. Having a perception of the situation, and then continuously learning more through new cues, allows organizational members to control and affect the outcomes (Maitlis & Sonenshein, 2010). A wide range of different group accounts of the situation is then blended and synthesized in order to frame one coherent outcome, or at least a plausible account of what is (Maitlis & Christianson, 2014).

The initial sense in creation is through interpretation developed into a more complete and narratively organized sense (Sandberg & Tsoukas, 2015).

The third part of sensemaking relates to enactment, in which rational and effective action is taken based on grounded beliefs and outcomes. Enactment produces more information from new cues to interpret, demonstrates whether meaning is shared and changes the situation caused by the original event and cues (Maitlis & Christianson, 2014; Sandberg & Tsoukas, 2015). Through actions, the ambiguity and uncertainty of the environment can therefore be altered and a new meaning and understanding of the situation follows (Maitlis & Christianson, 2014; Maitlis & Sonenshein, 2010). The organizational context is thus controllable based on the actions and decisions of organizational members, determining the conditions and direction moving forward (Maitlis & Sonenshein, 2010). Ultimately, new opportunities and constraints emerge from the actions taken, which the organization must make sense of in the new environment formed (Maitlis & Christianson, 2014).

Sensemaking is confined to specific episodes or periods, from the event and cues which set off ambiguity and uncertainty until organizational activity and the situation at hand is fully under control or satisfactorily restored (Sandberg & Tsoukas, 2015). Within this period, sensemaking is considered dynamic and recurring in nature as it concerns conditions changing over time to be made sense of, integrating new information into prior beliefs, only for the conditions to change again. Creation, interpretation and enactment, can thus be perceived as occurring simultaneously and in a cycle, where constant overlap of sensemaking activities transpire within the sensemaking period (Maitlis & Christianson, 2014). Although sensemaking generates new information cues and beliefs about future organizational tasks and conditions, it is mainly seen as a retrospective process. This is due to the fact that projection of meaning and interpretation onto future phenomena only can be done in relation to prior understandings of what has already occurred (Sandberg & Tsoukas, 2015).

Sensemaking is often considered an inherently social interaction since individuals cannot comprehend or interpret their environment and situation without the interactions with and influence of other individuals (Maitlis & Christianson, 2014; Maitlis & Sonenshein, 2010). Organizational members are jointly involved in scanning, sharing and perceiving information cues to reach collective attention to and understanding of an ambiguous event (Maitlis & Sonenshein, 2010). This immediate social context is vital as it requires individuals to justify their views and actions, determines which cues are relevant and how to best control the

outcome (Sandberg & Tsoukas, 2015). The number, diversity and competence of those involved further affect shared sensemaking as different cues of information are perceived in different manners (Maitlis & Sonenshein, 2010). Intersubjective meaning and shared accounts are produced, negotiated and sustained between individuals which thus allows them to comprehend the world, interpret the contextual relationships and coordinate collective actions and outcomes (Maitlis & Christianson, 2014).

2.3 Theoretical Framework

In the past decades, sensemaking has been researched in various contexts and through a diverse set of methodologies (Maitlis & Christianson, 2014). Sensemaking has been described and applied as a theory, lens, framework, paradigm or as a perspective, as the original architect of sensemaking Karl E. Weick termed it in 1995 (Maitlis & Christianson, 2014; Sandberg & Tsoukas, 2015; Weick, 1995). We apply our modern adaptation of Weickian sensemaking to the underexplored research area of materiality, with the CSRD as an ambiguous event within the inherently uncertain field of sustainability accounting. Sandberg & Tsoukas (2015) informed our choice of theoretical restriction, focusing primarily on the main sensemaking processes of creation, interpretation and enactment.

The CSRD can be viewed as a major planned change intervention, an ambiguous event which is expected to trigger sensemaking. Despite being anticipated by some and announced years prior to the first mandatory reporting period, the exact content and requirements of the CSRD may violate expectations and generate uncertainty, ambiguity and confusion for organizational members. Organizations mandated by the CSRD would need to create a shared understanding of what the implications of the CSRD are. Those involved in materiality assessment and sustainability reporting would furthermore have to question their fundamental assumptions about how to understand and apply the concept of materiality in relation to the CSRD. A shared understanding of the event which is the CSRD does not ensure that collective design of and vision for materiality assessment, sustainability disclosure or strategic actions will follow. Simpler frameworks and models can be extrapolated as guiding tools from the complex standards, in order to interpret materiality in sustainability issues. The input from a wide range of stakeholders would need to be blended and synthesized in order to frame one coherent outcome of what the organization deems material, what and how to report on these topics, and how to act on them. With future changes to the sustainability directive being indicated by the EU, new opportunities and constraints emerge.

In this study, we examine sensemaking through creation of the event which is CSRD and its implications on organizations' concept of materiality, sensemaking through organizations' interpretation of how to understand and apply materiality when determining material sustainability issues, and finally sensemaking through organizations' enactment when disclosing the sustainability report, acting on sustainability and gaining new insights on current and future regulatory sustainability developments. While some studies explore sensemaking only in regard to one specific influencing factor, we aim to investigate sensemaking in a broader cognitive sense. By studying the thoughts, perceptions and intersubjective experiences of sustainability managers in interpreting and applying materiality, we hope to get a better understanding of the challenges and opportunities the CSRD poses in relation to materiality, sustainability reporting and consequently sustainability action.

Since this reporting period is the first in which organizations are expected to comply with the CSRD, the organizations' sensemaking is still ongoing. On top of this, future uncertainties about changes to the CSRD imply that the organizations' sensemaking period in relation to the CSRD and materiality has not come to an end. Our aim is thus to capture the sensemaking process of organizations during this transition period, from the announcement of the CSRD up until today, rather than focus on any final outcomes. Uncertainty and ambiguity is not expected to be restored in examined organizations and thus the outcomes of sensemaking cannot be seen as definite or final. Furthermore, while we acknowledge the constant overlap and cycle of creation, interpretation and enactment within sensemaking, we aim to go in depth into the processes and practices of the organizations with regard to each activity separately. We explore creation in respect to the CSRD and the concept of materiality, interpretation in regard to the materiality assessment of sustainability topics and ultimately enactment in relation to sustainability reporting and actions. By doing so, our study takes common critiques into account by covering all three parts of sensemaking with a clear distinction between creation, interpretation and enactment. We realize that our application of sensemaking is inevitably selective due to our limited application of the vast quantity of sensemaking research. Nevertheless, this study can be seen to contribute not only to the understanding of the CSRD implementation and the concept and application of materiality, but also to the process of sensemaking through the distinctive aspects of creation, interpretation and enactment within an organizational setting.

3. Research Methodology

3.1 Research Design

This study aims to investigate the intricacies associated with Swedish for-profit organizations' understanding and application of materiality under the CSRD. As established by theory, materiality within sustainability is an interpretive practice defined by the organizational context and unique sensemaking of organizational members. According to Ahrens & Chapman (2006), qualitative research methods are particularly suited in the situation where practices are based on subjective interpretation rather than established principles. Furthermore, due to the recent introduction of the CSRD there is only limited research data on the topic, thereby favoring the explorative approach of qualitative research methods over quantitative research methods which require ample data.

Our study adopted a cross-sectional multiple-case research design in which data was collected through ten separate interviews. Seven of the interviews were conducted with Swedish organizations operating within the scope of CSRD. When selecting organizations, our aim was to capture a broad range of perspectives. This was achieved by including organizations from a variety of industries with different degrees of engagement in sustainability. This diversity of perspectives allowed us to examine materiality with respect to a multitude of organizational contexts and circumstances. It provided a broader and more nuanced understanding of the research topic. Since the CSRD is a relatively new framework, and the first CSRD-compliant report for the organizations was either imminent or forthcoming, they were still in the early stages of understanding its implications and developing internal processes. How far they had progressed primarily depended on prior levels of sustainability reporting, where a couple of the organizations had high prior ambitions in sustainability having followed various voluntary sustainability reporting standards. Furthermore, a couple of the organizations started to adjust parts of their sustainability reports in previous years to correspond with the CSRD. We expected this variation to add further nuance to our analysis.

An additional three interviews were performed with Swedish CSRD-experts. Our CSRD-experts are two sustainability consultants who work closely with organizations in their sustainability efforts and one impact director at a Swedish impact investment firm who supports the portfolio companies in their sustainability initiatives. The expert interviews were held with the aim of building greater credibility and depth within our findings. Their broad

experience of sustainability offered insights into materiality on a higher level and contributed with information on patterns and trends within organizational practices. Another important aspect of including the experts was that they offered an unbiased and independent view on the matter, not influenced by the same need as organizations to present the information in favorable terms. By including expert perspectives, the study is not limited to micro-level experiences of individual organizations but also includes a macro-level perspective which covers the general developments in the field.

3.2 Data Collection

The primary data collection was performed through interviews. Since the organizations are mandated and actively adapting to the CSRD, they represent information-intensive and rich data sources from which it was possible to gain detailed insights into materiality within sustainability. The choice of interviewing multiple organizations was guided by the expectation that it would create an analytical depth in the study, enabling cross-case comparisons. This should enhance the theoretical insights and credibility of the study (Eisenhardt & Graebner, 2007). In each organization one participant was selected based on the primary requirement that they are directly involved in the sustainability of the organization with regard to the materiality processes and practices. This requirement was necessary to ensure that the interviewees could provide detailed insights on how their emerging practices are created and developed, as well as how the CSRD-requirements are understood and operationalized. The interview subjects of our study therefore include a diverse set of roles such as Chief Sustainability Officer, Sustainability Controller and Sustainable Supply Chain Specialist (illustrated in Appendix B). The reason to include interviewees with various roles, responsibilities and seniority was to achieve a complete overview and understanding of the materiality process and practices. In addition, the risk of bias in data collection was mitigated through the inclusion of participants with a multitude of roles who could view the phenomenon from differing perspectives (Eisenhardt & Graebner, 2007).

The interviews were conducted under a semi-structured interview format, a style of interviewing particularly suitable for understanding and investigating complicated organizational practices. This format allowed us as interviewers to dig deeper into certain topics that emerged during an interview while also providing a structure that created

consistency between the interviews (Qu & Dumay, 2011). This format was further suited to our area of research as it supported an investigation of subjectivity through personal beliefs and opinions. Furthermore, the research field of materiality is still evolving, with particularly limited theory on how organizations interpret and apply materiality under the CSRD. Under these conditions, Edmondson & McManus (2007) argue that a flexible approach for data collection allows for the emergence of unforeseen insights. We therefore constructed our interview guide around several open-ended questions that allowed the interviewees to elaborate, with prepared follow-up questions on areas we deemed necessitated more depth and focus.

During the initial phase of data collection, the interview guide was treated as an adaptable and evolving document. The two initial interviews were particularly explorative in nature as insights from these interviews helped shape, sharpen and improve the interview guide moving forward. After the two first interviews the questions were evaluated and modified according to which questions generated valuable insights within the intended scope, and which questions that did not. Questions were added to capture themes that arise during interviews or to deepen the insights on one specific topic. This process of refinement is in line with qualitative interviewing practices where adjustments are performed initially in order to achieve deeper investigations moving ahead (Ahrens & Chapman, 2006).

The contemporary nature of materiality under the CSRD limited our access to secondary data. Only a limited number of sustainability reports fully abiding by the CSRD have been published and only a limited number of other sources on the subject are available, such as articles or website posts. Additionally, the organizations we interviewed were unwilling to share any internal documents, justified as confidentiality concerns regarding materials foundational to their upcoming reports. Due to this limitation of secondary sources, those available were primarily used to create context and understanding, not used as an essential part of the analysis.

Before each interview the interview guide had been sent out to participants by email. The purpose of this was twofold. The primary reason was to give the participant a chance to reflect on the themes beforehand enabling more detailed and complete responses. The second reason for providing the guide beforehand was to help set the conceptual boundaries for a focused discussion. Creating the appropriate context is necessary to generate meaningful data as the interviewee needs to understand the scope and purpose of the research in order to provide

relevant data (Qu & Dumay, 2011). In line with this, each interview was initiated by introducing the study again, as well as allowing the interviewee to ask any questions to ensure contextual understanding. Furthermore, the participants were asked and encouraged to choose preferred interview language prior to the interview. This resulted in three interviews conducted in English while the rest were conducted in Swedish. The purpose of allowing the interviewees to choose the language they are most comfortable with is to enhance the quality of data. However, this also introduces the risk of translational errors during the transcription and codification process. When translating the interviews our focus was to capture the essence and intended meaning of what was said, rather than a word-by-word translation.

3.3 Data Analysis

The data analysis was performed using an inductive approach based on Gioia's methodology, offering a systematic way of evolving qualitative interview data into meaningful and theoretically grounded insights (Gioia et al., 2013). After completing most of the interviews, the audio recordings were transcribed manually to ensure accuracy as well as GDPR compliance. Importantly, this transcribing process also served the purpose of familiarization with the content, allowing us to get an initial understanding of recurring topics and patterns of potential analytical interest.

As a first step of analysis, we performed what Gioia (2013) labels as first order coding. This process consisted of us marking and codifying the most important statements while reading through the transcriptions. During this step, we intentionally avoided making theoretical interpretations in order to stay as open minded as possible not to limit the analysis prematurely to a specific analytical lens. We stayed close to the participants' own language and thereby captured the full breadth and nuances of their experiences, interpretations and reflections. By preserving the authenticity of the responses, we allowed investigation into the concrete realities within organizations which may not yet be captured in the limited theory of the research area. Thereafter we compared the content identified in the first step and grouped the codes into second order themes that reflected emerging patterns. Insights that appeared across several interviews were discussed, refined and assessed to ensure the relevance to the research question. The third step consisted of us combining and synthesizing the second order themes into aggregate dimensions. The aggregate dimensions then created the structure for understanding the diversity of responses generated through the different interviews and helped

identify patterns that extended beyond the specific context of each organization. As our study involves multiple organizational perspectives, this structure was necessary to allow for a meaningful comparison of practices and challenges as well as in order to identify emerging approaches.

Lastly, the aggregate dimensions were linked to relevant theoretical concepts within sensemaking that together with illustrative examples created the basis for the findings sections that follow. Consistent with Gioia's (2013) methodology this approach resulted in an analysis balanced between the integration of participants' insights and the researchers' interpretation developed through the coding process. Applying this structure was crucial for our understanding of the complicated, subjective and organization-specific processes and practices involved with materiality.

4. Empirical Analysis and Findings

4.1 Background and Context

In this chapter we present the empirical findings generated from the data collection process. This study was conducted during a highly transitional period for many organizations covered by the CSRD. Although the directive has been implemented into Swedish law, many of the interviewed organizations were yet to publish their first CSRD-compliant sustainability report and were therefore still in the process of fully understanding and internalizing the regulatory framework. Hence, organizations were operating in an environment where regulations have been defined legally but not yet fully transformed into established internal practices. Due to the lack of previous CSRD-compliant reports and thereby industry examples and best practices, the setting is characterized by uncertainty and ambiguity. The chosen sample group consists of large Swedish for-profit organizations representing a multitude of industries that all have had to respond to the introduction of the CSRD. This sample consists of a diversified group of organizations generating insights across the Swedish business landscape. Due to confidentiality reasons, the names of interviewees and organizations will be kept anonymous.

The organizations do not only have operational differences but also have had to approach this regulatory shift from different starting points, as their preparedness varied. Several organizations had extensive experience with long-standing practices and well-defined

routines, although under other sustainability initiatives and standards. While not directly applicable to satisfy the CSRD, these other standards and frameworks provided a theoretical basis on which the organizations could build their understanding of the CSRD. Other organizations did not have the same history of high sustainability reporting ambition, making the regulatory shift considerably more challenging. In addition, there were clear variations in the assigned resources to the sustainability reporting efforts as well as differences in internal competence. Furthermore, the organizations also differed in how integrated the sustainability agenda was ingrained in the business strategy, and thereby how high sustainability had been prioritized. When weighing all these contextual components it is clear that the organizations' circumstances varied, which should be considered when reading the findings.

The findings are structured in line with the theoretical framework chosen with three separate sections capturing the creation, interpretation and enactment processes involved in making sense of the uncertain and ambiguous area of materiality within sustainability.

4.2 Creation

In the following sections, interviewees' sensemaking through creation is explored in relation to the CSRD and the concept of materiality. The event of the CSRD sets off sensemaking due to its ambiguous and uncertain nature. The cues of information in the CSRD, the ESRS and the EFRAG guidelines cause confusion and disorientation in the organizations. Prior sustainability frameworks are therefore no longer meaningful to explain the situation. Shared understanding of this new regulatory environment in which the organizations find themselves is accomplished only through networks of people identifying and exploring its meaning collectively, building upon prior beliefs. Joint accounts of what the CSRD is and its implications for the organization are produced, and a new meaning is formed in the concept of materiality in relation to the new regulations and standards.

4.2.1 The CSRD as a trigger for sensemaking

With the announcement of the CSRD and the realization that the organization would be mandated to adhere to the regulation, it was apparent to all interviewees that the CSRD documentation had to be explained in order to be managed. Interviewee B recognized that "It was clear that the CSRD has a big agenda and was something we needed to figure out what it actually implies". Furthermore, the CSRD was considered both complex and novel by all

interviewees, illustrated by interviewee A as “CSRD as a new regulation introduced completely different requirements and a different way of working when it comes to sustainability reporting. It is very comprehensive, very complex and at a level where sustainability reporting has not been before”. The CSRD as an event of both complex and novel character requiring the need for explaining is thus evident. However, the degree of confusion and disorientation caused by the CSRD varied among the organizations. A couple of interviewees perceived the directive as only slightly more complex, requiring only smaller adjustments to what they knew from before. The level of urgency associated with the CSRD also varied between organizations as interviewee F sensed imminent threat where “The CSRD gave us a real time scare” in contrast to interviewee E who viewed the three-year implementation time as “Time to actually start working toward CSRD rather than panic”.

The degree of urgency, confusion and disorientation encountered by the interviewees is put in relation to each organization’s previous level of sustainability reporting. While most prior frameworks used in their sustainability reporting were deemed void, organizations that had greater experience with older sustainability standards were less confronted by the CSRD. The beliefs based on other frameworks could therefore to some extent reduce the confusion and disorientation caused by the CSRD. Furthermore, each individual’s prior experience of dealing with regulatory documentation affected the complexity perceived of the CSRD. More often than not, the organization’s regulatory department was involved as interviewee D explained: “To be able to read and understand the CSRD we felt we had to take help from our compliance people”. The competencies and resources available in the organization are also seen to have affected the level of confrontation that the CSRD posed to interviewees. The need for external support is showcased by interviewee F who claimed that “We certainly did not have the resources or competencies in-house to handle CSRD or fully grasp its demands, so we got help from outside the company”. Different information cues from the CSRD were thus perceived and shared with other organizational members, or in some cases external consultants, to reach a joint understanding. Despite already maintaining a sustainability manager and in some cases a sustainability team, most of the organizations chose to hire a new employee or consultant at this stage in order to unpack and handle the CSRD moving forward.

4.2.2 Bringing the CSRD into the organizational agenda

Once establishing the CSRD as important to the organization and starting to make sense of the directive with the help of internal functions and external hires, the sustainability leader, with or without a sustainability team and consultants, takes ownership of the CSRD implementation. However, the interviewees recognized that working with sustainability in accordance with the CSRD requires a whole lot of people across the organization, ultimately generating outcomes within sustainability which represent the organization as a whole. Sustainability, which is often already seen as abstract or theoretical, with the amplification of the CSRD, requires active participation from within the organization. Therefore, most of the organizations went on to develop the competencies of the employees in the organization through workshops on the CSRD. The experts likewise see education on both the CSRD and sustainability as vital in the first stage of involving others. As interviewee A highlighted: “Sustainability in a company does not come from the sustainability department, it is the organization that has to stand behind it. Successful CSRD-implementation requires that people have the right knowledge and are actually onboard”. As a step towards recreating shared meaning in the organization and a coherent sense of the CSRD and its implications, organizational members are brought together to discuss and learn.

Furthermore, a majority of the interviewees emphasized the significance of engaging management and the board in the CSRD, in order to receive both strategic guidance and operational support in the form of resources. Buy-in from management and the board required less effort for those organizations which identified strongly with sustainability and had strong organizational structures set up for sustainability. Organization B is one of these organizations where “Our board realizes they are accountable for whatever sustainability we disclose in the report, so they started to take ownership and allocate the resources we needed”. Other interviewees had greater difficulties convincing top management such as interviewee C who described “Getting the CSRD across clearly to management was a lot of work as sustainability always comes on top of everything else. I had to frame the CSRD as a catalyst for us to get sustainability done in the organization”. Interviewee A refined this framing further as “I had to make sure management saw the CSRD as a strategic tool to drive the organization’s sustainability agenda rather than just something to report on”. Several interviewees shared the view that involving and getting both employees and management on board enables the organization to collectively explore the purpose and implications of the

CSRD. Once initial resistance from internal actors is overcome, the CSRD becomes a prioritized organizational agenda and the context for creating a shared understanding of the CSRD and its implications can emerge.

4.2.3 Conceptualizing materiality off the cues of the CSRD

The interviewees agreed that materiality as of today should be understood per the definition provided by the CSRD, the ESRS and the EFRAG guidelines, abiding by both impact materiality and financial materiality. However, their explanations for and comprehension of the CSRD and its implications influences the way in which the organizations perceive materiality. Several of the interviewees merge their own meaning into what the concept of materiality is specifically for them or their organization based on both their perception of the CSRD and their prior beliefs on materiality. As the principle of materiality has a long-standing history within accounting and organizational disclosure, and has been part of other previously used sustainability frameworks, each interviewee had prior beliefs incorporated into the new principle of double materiality. They place different emphasis on whether materiality is about acting on sustainability or only in regard to identification, whether only negative sustainability matters or also positive ones are considered material, and on whom a sustainability matter can be considered material to. The interviewees' diverging concepts of materiality, as well as their emphasis beyond the definition, are illustrated below in Table 2:

Interview code	Concept of Materiality	Emphasis
Interviewee A	Materiality is about our impact on environmental, social and governance aspects happening outside of the world of our organization and then also the environmental, social and governance risk and opportunities that impact us.	Action; positive and negative impacts; material to people, planet and organization.
Interviewee B	Materiality concerns what is key for us and where we have impacts that we need to address. It is a tool for us to prioritise and figure out where we should take some responsibility and where we can take some responsibility.	Identification; material to organization.
Interviewee C	Materiality is about identifying the most important issues, the issues where we have a negative impact and hence are things we need to work on more in order to reduce impact.	Identification; negative impacts.
Interviewee D	Materiality is primarily about what is so significant that it becomes an issue for our board or our group management to handle.	Material to the board and management.

Interviewee E	Materiality is a means to understanding what our impacts are in society, on people and the planet, and what the most important topics are for us to focus on as a company. It is about mitigating the negative impacts, amplifying the positive impacts and also mitigating the risks and utilizing the opportunities.	Identification and action; positive and negative impacts; material to people and planet.
Interviewee F	Materiality is about how our business affects our environment but also how the world around us affects us.	-no emphasis-
Interviewee G	Materiality is in regard to things that we can have an impact on, and things where we have actual impact. It is a methodology for prioritizing what is essential and non-essential.	-no emphasis-

Table 2: Interviewees' concepts of materiality and their emphasis.

These sections on creation illustrate how the CSRD triggers an extensive sensemaking process across organizations to build a common understanding and eventually construct their organization-wide perception of materiality.

4.3 Interpretation

In the following sections, interviewees' sensemaking through interpretation is explored in relation to the application of materiality in the assessment of sustainability issues. Having co-constructed a plausible understanding of the CSRD and applicable standards, as well as an initial sense of materiality, the organizations are set to apply their concept of materiality. By formatting a process to follow and frameworks to work by, the complexity of their environment is controlled for. With new cues of information, from various group accounts, the organizations begin to affect the outcomes of what they consider material sustainability issues. Social interactions enable the establishment of a frame in which material topics can be assessed and evaluated. Once different views are justified and blended, the organizations determine which cues are relevant and how to synthesize their findings. The organization generates one plausible account of what topics are material to their organization.

4.3.1 Contextualizing materiality to identify sustainability topics

While there is consensus among the interviewees that the CSRD, the ESRS standards and the EFRAG guidelines provide a frame with instructions on how to apply materiality, they construct their own plan for applying materiality to their specific organization. In order to break down the complexity of the process into simpler steps, organizations can be seen to complement their understanding with other familiar standards and frameworks, as well as external help from consultants. As demonstrated by interviewee E "The ESRS guidance was a

bit vague, so while we followed it quite rigidly we still had to adapt it to the context of our organization and integrate our other sustainability frameworks and processes”. Further explained by interviewee F “Since the CSRD and any guidance documents were quite advanced we really needed help from consultants to plan our materiality assessment”. The experts described the need for organizations to interpret the standards as there is no complete and direct process description to follow precisely. Internally or with the help of consultants, the organizational members thus had to negotiate and collectively determine which cues of information from the CSRD, the ESRS, the EFRAG guidelines, other sustainability standards and expert opinion were most relevant to coordinate one plan and method for the organization’s assessment of materiality. The plan which the organizations set for assessing materiality can be seen to pertain to two parts: identification of topics within the organizational context and determination of material topics. While there are more similarities than differences between the organizations’ step by step plans, the activities are performed differently in regard to order, extent and reasoning. Table 3 below illustrates the organizations’ step by step plans for applying materiality:

Interview Subject	Materiality Assessment Plan
Interviewee A	1. Understanding the context 2. Engaging with stakeholders 3. Identifying Topics and IROs 4. Assessing IROs 5. Validating and calibrating assessment of IROs
Interviewee B	1. Mapping business model and value chain 2. Identifying Topics and IROs 3. Assessing IROs 4. Validating assessment of IROs 5. Final validation
Interviewee C	1. Engaging with stakeholders 2. Identifying Topics and IROs 3. Assessing IROs 4. Validating assessment of IROs
Interviewee D	1. Understanding the context 2. Identifying Topics and IROs 3. Assessing IROs
Interviewee E	1. Understanding the context 2. Identifying Topics and IROs 3. Assessing IROs
Interviewee F	1. Mapping value chain 2. Identifying Topics 3. Assessing Topics

Interviewee G	1. Analyzing external environment 2. Engaging with stakeholders 3. Identifying Topics and Subtopics 4. Assessing Subtopics 5. Validating assessment of Subtopics
---------------	--

Table 3: Interviewees' materiality assessment plans and steps.

Identifying the sustainability topics, sub-topics and IROs relevant to the specific organization requires a clear perception of the organization's distinct situation and environment. While the initial sense of the regulatory situation and environment of the CSRD is created, the organizations had to create an initial sense of the organizational context in relation to sustainability issues. All interviewees thus mapped their business model and value chain to some extent in order to reinterpret their organizational context. Certain interviewees gained greater awareness of the organization's relation to stakeholders and broader sustainability areas, while others managed to identify sustainability topics. It was imperative to some organizations that the mapping and contextualization was conducted in-house as interviewee D stated "We want to own the process and understand precisely how sustainability issues connect to our business. Having the understanding ourselves, rather than just a product from consultants, we believe is extremely valuable to the company". Other interviewees acknowledged constraints in internal resources or competence, as well as the lack of guidance from the CSRD on how to conduct the full mapping. As interviewee E explained "Following the CSRD for the first time, we got guidance from consultants mapping our ties to sustainability topics. We also checked our previous sustainability reports, industry reports and sustainability topics identified by some of our peers in the industry". Once the organizational context was recognized, sustainability topics and subtopics could be obtained by some organizations directly from the ESRS standards. Interviewee G explained it as "We simply went through the lists provided by ESRS with all their suggested topics, sub-topics and sub-sub-topics considering each of these in relation to our firm". While some organizations treated the ESRS as a straightforward checklist, others had to interpret or supplement the standards to fit their unique organizational context. As stated by interviewee E in "The ESRS document is challenging as their topics do not connect to our business. As we are not a standard industry, we had to go with our own entity specific topics that are not covered by the ESRS". Different cues of information from various information sources more or less relevant to the organization thus had to be scanned to reach several plausible suggestions of sustainability issues relevant to the organization.

Initial sustainability topics, sub-topics and IROs were then complemented through engagement with those stakeholders identified in the mapping as relevant to the organizational context. The organizations cannot comprehend or interpret their environment and situation without the interactions with and influence of other interrelated groups who may provide new cues of information and perceive the sustainability issues in a different manner. While some organizations considered a broad range of external stakeholders, others solely apprehended sustainability topics relevant to investors and prioritized suppliers and customers based on high-risk or high-value contracts. Between external stakeholders, the methods of engagement also varied as interviewee A stated “The external stakeholder engagement looks a bit different depending on the stakeholder, and mainly comes in the regular dialogue that our team has with the customers and investors”. External stakeholder involvement most diverged in organization D as interviewee D described that “Our previous materiality assessment where we involved stakeholders formed the basis also for this year, since we do not think the questions have changed much since then and our information already reflects those groups in a good way”. The experts asserted that external stakeholder involvement is vital, and that it is more important with deep, qualitative and interactive engagement with prioritized groups than low-quality engagement of all stakeholders. They suggested that there is no way of covering the viewpoints of all groups but that there is value in considering the most relevant groups in depth. While differing in level of engagement and quantity of groups engaged externally, the organizations all engage internal stakeholders to generate a complete gross list of topics, sub-topics and IROs. As interviewee B explained “We gathered subject matter experts, then generalists, and thereafter had people with a helicopter view of the firm, making sure we identified issues that cover the full value chain and if they are reasonable”. Discovery of new information cues through social interaction with both external and internal stakeholders, enables the organizations to co-construct new topics, sub-topics and IROs of relevance otherwise gone unnoticed. The range of internal and external group accounts of topics, sub-topics and IROs relevant to the organizations could then be blended into one plausible account of between 30 to 250 IROs to assess for materiality.

4.3.2 Synthesizing one coherent outcome of what is regarded material

Ready for the assessment of IROs based on impact materiality, all interviewees make it clear that they follow the grading criteria of severity and likelihood as set by the CSRD, with scale, scope and irremediability as distinct criteria within severity. Despite the organizations having

the same criteria for evaluation, the units of measurement in regard to evaluating the criteria vary between the organizations, as they rely on different quantitative and qualitative data. The evaluation of the criteria is then translated into a grading range, which also differs, where one organization scores scale, scope, irremediability and likelihood on a range of one to five, while others score them on a range of low, medium and high. Next, the organizations weigh the scores of scale, scope and irremediability differently, with some organizations equally weighting them while others weight-adjust them to arrive at severity. Once severity is scored, the organizations also weigh the scores of severity and likelihood differently. Some organizations equally weighting them while others weight-adjust them by placing emphasis on for example likelihood in order to arrive at a final score of the IROs impact materiality. Organization G altogether goes against the grain by assessing impact materiality not on IRO level, but directly on subtopic level. When it comes to the assessment of IROs based on financial materiality it is often magnitude and likelihood or scale and likelihood which are considered as criteria. The units of measurement in regard to these criteria differ between the organizations as they are based on impact to either net sales, CapEx, EBITDA, expenditure, market capitalization or other financial metrics. The organizations then go on to translate their units differently and into different grading ranges, to then weigh magnitude or scale and likelihood differently. Once the scoring is set for both impact materiality and financial materiality, the threshold for when a score is considered material or not is decided on. Depending on the thresholds set, the IRO is considered material if one or both of impact and financial materiality is concluded. Interviewee C described that “We have set quite high thresholds for financial impact so there aren’t that many subjects left considered financially material”, something which the experts see when organizations want to avoid transparently reporting and committing to a multitude of sustainability issues. Expert Y went on to explain that this modification of thresholds “just postpones the problem, because sooner or later the organization will end up in a situation where the issue has escalated”.

The organizations scoring of the criteria was based on quantitative data as far as possible, supplemented by qualitative data, but the level of quantitative data available to the organizations varies. Interviewee A relies on mostly internal quantitative data and stated that “We have a sustainability controller working with the quantitative parts to ensure that the sustainability data we base our materiality scoring on is reliable, consistent over time and that we have processes in place to collect it”. Other organizations rely more on a blend of quantitative and qualitative data collected from external sources as Interviewee G explained

“We lean towards scientific reports and guidance on different topics provided for example by the UN or WWF, and then get input from experts and stakeholders if the scoring resonates with them and looks realistic”. Other organizations had less quantitative data available and less knowledge of how to score the criteria quantitatively. The experts relate this to the maturity and resources available to each organization, whether the sustainability department can support their claims with evidence or simply need to make their best possible estimates. Interviewee B recounted that “It is difficult putting a number and level of materiality to topics. There are a lot of assumptions, predictions and estimations. In the end, determining materiality is a subjective exercise and very much up to the person doing it”. Multiple organizations also complained about the issue of unreliable and insufficient data from their value chain as interviewee D established “We collect data that is outside our direct control, that is data that comes from scope 3, but much of it has to be based on standard values or other assumptions which creates high uncertainty in the calculation”.

The scoring required discussion and validation by making sure of getting the right people around the table such as subject matter experts and people who know about their specific areas, as well as management and the board for a more holistic view. All involved individuals have to justify their views and negotiate which cues are relevant for the materiality determination. External experts were consulted more often than not, while external stakeholders seldom were polled. The aggregate scores of each IRO were ultimately synthesized by the sustainability leader to arrive at a score for impact materiality and a score for financial materiality. If this aggregate score exceeds the thresholds for what is considered either impact material or financial material, the IRO and topic is determined as material to most of the organizations. The experts believe all materially scored IROs must bring about materiality for the overarching topic and subtopic of said IRO, while interviewee G explained that this is not necessarily the case as an IRO may only be relevant to one subsidiary in their organizational structure and thus not necessarily material to the whole organization. With materiality determined, some organizations go on to add an additional layer of judgement before final materiality determination is finalized such as interviewee A who reasoned “since there is a lot of room for subjective judgments in the scoring, we try to ensure that we calibrate and align the totality so it makes sense to us as a company based on what we are doing”. Interviewee B further explained that “scoring something material depends on the content you add to it or what you think when evaluating it. In our extra qualitative layer, where we consider our strategic priorities and the societal trends, a non-material impact may

become material”. In each decision of the assessment of materiality, the organizations seek, extract and interpret supportive information through cues from various information sources. While a range of group accounts of the materiality of an IRO is taken into account, the final outcome of what is considered material or not, is up to the individual with the final say in the organization rather than a collective or shared understanding between the organization and its stakeholders. The coherent outcome of what the organization considers material is thus ultimately controlled and calibrated by the organization. The experts explained that while the outcome is highly subjective, there is in the end no one other than the organization that can best make a relevant judgement.

In this section we show how organizations interpret and apply materiality within their specific organizational context. Stakeholder input, data and professional judgement forms one comprehensive understanding of what materiality is in their operational reality.

4.4 Enactment

In the following sections, interviewees’ sensemaking through enactment is explored in relation to the disclosure of the sustainability report, sustainability actions and new insights in the changing regulatory environment. Having conducted the assessment of materiality, the organizations are set to generate a sustainability report based on the outcome and attempt to take sustainability measures in relation to these material topics. The organizations gain new knowledge and understanding of the CSRD and its implications for their organizational context by taking these rational and effective actions. However, while the interviewees give the impression of being in more control of the sustainability demands set by regulations and standards, the ambiguity and uncertainty of their environment have not been fully restored. Recent changes to the CSRD through the Omnibus generate new confusion and disorientation. The Omnibus prolongs the sensemaking period by generating new cues of ambiguous nature for the organizations to make sense of and integrate into their prior understanding. With anticipated future changes through the Omnibus, the conditions set for the organizations are expected to change once again. The organizations can thus be seen taking actions and making decisions in order to prepare for these opportunities and constraints which may emerge from future changes to sustainability regulations and standards.

4.4.1 Acting on the material outcome

Based on the outcome of material topics, sub-topics and IROs, the organizations are expected to take rational and effective action. First, the organizations compile their sustainability reports in accordance with the CSRD, where the assessment of materiality, both processes and practices, are to be made evident. Interviewee E explained that “From the ESRS guidance we have understood that there is strict regulation which requires us to be detailed and transparent in our reporting about our materiality processes, disclosing our impacts and how we scored them”. To what extent the organizations go on to describe their materiality assessment processes, practices and results in their sustainability report varies though. Interviewee D described how “It is a matter of finding a balanced and suitable level of depth so that the report is understandable yet useful. I do not think it is good to write all the details but rather keep it compact”. Furthermore, with what emphasis and focal point of the materiality assessment processes, practices and results the organizations choose to disclose in their sustainability report also varies. The organizations believe different effort should be put toward reporting on the topics that resulted as material versus immaterial. As interviewee C stated “Whatever turns out to be material will be included in the report” while interviewee D described that “There are disclosure requirements in the CSRD that we account for both the topics that are and those that are not material to us and explain why”. A recurring topic in the interviews was the discussion on the use of the materiality matrix in the sustainability report. While some of the organizations believe it is important to include it in the report, as it helps the reader understand what is material, other organizations view the matrix as unreliable, as it puts too much value on exact scoring, shows comparison of material topics in relation to each other despite no comparison having been made, is unable to present all necessary information and thus inevitably misleads the reader and raises more questions than it can answer.

Two of the organizations stressed the importance of conformity when disclosing about the materiality assessment in the sustainability report, as interviewee D stated “The idea with the CSRD was to create comparability between companies and their reports. I hope it becomes easier for analysts or customers to compare and look at several companies at the same time based on all parameters”. Interviewee F also explained that “For stakeholders such as owners and others, it would be easier if everyone reported according to the methodology that exists within the CSRD in order for sustainability to be more comparable”. However, there are issues in regard to the high demands placed on the reporting of organization, as interviewee E

stated “I feel like the CSRD puts sustainable reporting on par with financial reporting which is very important, but so much effort into reporting sometimes makes it quite challenging to focus on the actual impacts and integrating sustainability into strategy”. Interviewee F agreed that “A lot of resources are spent on just reporting when all you really want is to make a real difference through your actions”. The rationalization of the material outcomes in the sustainability report allows organizations to see if meaning is shared both internally and externally with stakeholders. While the organizations have different perceptions of what information content to include in the sustainability report, they share the view that it should provide complete and comparable information to stakeholders.

Second, the topics, sub-topics and IROs determined as material are those sustainability matters which organizations have identified as most significant to their organization and environment. To most of the interviewees it is evident that what is considered material also will be acted on through their policies and initiatives. Some of the organizations go further than asserting integration of the materiality outcome into the sustainability strategy, calling for total alignment between the sustainability strategy and the business strategy. Interviewee G stated that “The material risks and impacts we have are met by our policies and guidelines. Since sustainability is at the core of our business, it is not a separate strategy for us but it is fully integrated”. Only interviewee C confessed that “The connection between our material topics and our sustainability actions is not very clear. We need to be better able to capture all these risks and opportunities and impacts that we need to work with”.

However, other organizations also face difficulties in how to optimize their sustainability actions based on their materiality outcomes. The issues determined as material still have to be prioritized after the materiality assessment is conducted in order to be acted on efficiently by the organization, and certain material topics may be deemed more significant to act on than others. As interviewee A stated “Since companies do not have unlimited resources and there are so many IROs identified, it is a matter of ambition and feasibility from a business strategy point of view so really to integrate and commit to sustainability”. Interviewee G took a different perspective and explained that “It comes back to what our biggest emissions are and where we are able to have the biggest impact. We need to focus on the overarching goal and look at the actions needed in order to reach that goal”. Most of the organizations agreed on the need to set clear ambitions, feasible goals and ensure buy-in for resource allocation, competence development and ownership. Based on actions and decisions of organizations

post materiality determination, the organizational members can, under the right circumstance, still control the conditions for material topics moving forward. For most of the organizations, the rational and effective actions they plan to take are thus not entirely based on the material outcomes but rather based on other considerations relating to their resources and competencies or other qualitatively motivated preferences. The organizational actions are in the end controlled based on the decisions of organizational leadership who determine the direction moving forward.

4.4.2 New opportunities and constraints moving forward

Having generated a sustainability report and planning or taking sustainability actions more or less based on the material topics determined, the organizations face new challenges in making sense of the Omnibus. The interviewees pose different opportunities and constraints anticipated by future changes to the sustainability regulations and standards. In general, the organizations display a positive attitude toward the reduced data points and demands set by the CSRD through the Omnibus amendment. As interviewee A stated “Unfortunately, the scope and administration of the CSRD is not in relation to the value it can create. Therefore, I think the Omnibus is welcomed”. Interviewee G further described the benefits of the Omnibus by explaining that “It is good that the CSRD becomes less administrative so we can spend more time making an actual difference. It should give us time to spend on improving the sustainability areas that we see are material to us”. However, many of the interviewees admitted frustration with the sustainability regulations seeming to change so considerably and frequently. The interviewees share the perception that organizations must build sustainability processes that can withstand change, regardless of what changes occur. As interviewee B explained “Although we currently do not know exactly what changes will occur, we know changes will occur. For now we have to continue with the current standards and still be perfectly adaptable to whatever we need to change going forward”. With the experience of the CSRD, the organizations described what they perceive as advantageous and disadvantageous changes to sustainability regulations and standards. As interviewee A stated “Standardization in terms of sectors would be great for comparability, but I do not think we need more standardization in terms of methodology because it is already very stringent”, while interviewee D stated “There cannot be a one-size-fits-all standard when companies have completely different circumstances. Increased guidance on stakeholder engagement or value chain mapping could be good while more standardization on how to motivate for materiality

is definitely not needed”. The experts shared the organizations’ concerns about increasing standardization, that flexibility and adjustment of the processes and practices to each organization’s context is crucial, since material issues are subjective and individual to each organization. However, the experts do believe that there needs to be more stringent regulations on the scoring and threshold setting of materiality, as organizations are seen to regulate them to their advantage and society’s disadvantage. The organizations share the rational and effective action of agility in their processes and practices relating to materiality and sustainability accounting. Their uncertain situation caused by the original event of the CSRD is unaltered despite the increased understanding and meaningful action taken, since the regulatory environment is expected to change again. New opportunities and constraints emerge from the changing environment, which the organizations then must be prepared to make sense of.

This section shows how organizations enact their materiality outcomes through reporting and strategic actions, despite the evolving regulatory landscape which requires constant adaptation and continued sensemaking.

5. Discussion

In this chapter, we relate our findings, on how Swedish organizations mandated by the CSRD make sense of materiality, to prior research. The question is evermore present; How is one to define which sustainability considerations are important or not, how important they are and to whom, as well as on what to report and act on or not, and to what extent?

Bolt & Tregidga (2023), Garst (2022) and Giacomini (2025) all mention calls for increased regulation, standards, frameworks, tools and guidance on materiality as a means of harmonizing organizations’ sustainability accounting. These calls are answered by the EU through the CSRD, with its ESRS standard and EFRAG guidelines. Despite organizations now falling under one and the same mandatory regulation and standard, there still exists a disconnect in how they make sense of materiality. Prior research mainly explores the differences in how organizations conceive of materiality due to the use of various standards. Our findings on the other hand suggest that differences already commence at perception of the standard, at least in regard to the CSRD. While all organizations perceive the CSRD as ambiguous and uncertain, the degree of confusion and disorientation that the interviewees

sense depends on their prior beliefs and experiences. The cues of information in the CSRD are made sense of by the organizations through various means of support and to different extent. Explanations for the CSRD and its implications are co-constructed in the organization based on the support of internal and external actors as well as the buy-in and engagement of organizational members. A meaningful sense of the CSRD and its regulatory environment can only be formed intersubjectively once the cues of information are brought into the organizational agenda. Since the circumstances differ between the organizations, their initial sense of materiality as of the CSRD also varies.

Contrary to the many standards and their unique definitions of materiality, there is only one definition as of the CSRD for organizations in the EU to abide by; double materiality (illustrated in Table 1). As found by Giacomini (2025), Lehner (2022) and Puroila & Mäkelä, (2019), organizations and individuals ascribe their own meanings and assumptions to the concept, regardless of the definition. Our research shows that while the CSRD and the EFRAG definition of double materiality may be the basis, a meaningful concept of materiality is constructed through organizational sensemaking. The cues of information from the directive, standard and guidelines are built on top of the interviewees' prior beliefs and experiences of materiality, from their earlier sustainability roles and the standards and frameworks which they have previously used. Subject to their unique sensemaking, the interviewees then place different emphasis on what materiality is and who materiality is for.

While Adams (2021) and Rimmel (2025) refer to the voluntary nature of standards, Garst (2022) notes the brief existence in time of the sustainability perspective as cause for absent or underdeveloped methods for materiality. In contrast, our findings suggest that organizations do have methods for materiality of their own, but that these are created and developed to different degrees on account of organizational sensemaking rather than directly obtained from regulations, standards and guidelines. With a shared meaning of the CSRD and a concept of materiality created within the organization, the mandated standard with its guidelines is interpreted and adapted to the specific context of each organization. Complexity in materiality is reduced in organizations through social interactions and the use of other familiar standards and frameworks, combining these cues of information to form one coherent method for materiality with simpler steps (illustrated in Table 3). While these simpler steps share many similarities between the organizations and contain overlapping activities, the differences mainly pertain to the composition, order and extent of these activities. Furthermore, the

Omnibus is seen to limit organizations in their development of methods for materiality as they are unable to restore the ambiguity and uncertainty posed by the CSRD. With the Omnibus and expected future changes to the regulations and standards, new cues of information are continuously enforced onto organizations' sensemaking and prior beliefs. As long as sensemaking is prolonged, the organizations will continue to prioritize adaptability in their methods for materiality, thereby never forming fully developed methods.

As found in prior research, contextualizing materiality in order to identify sustainability topics is a very comprehensive process, requiring thorough understanding of the organizational context, the sustainability standards and the stakeholders and their interests. The organizations set out to make sense of their organizational environment through mapping of the business model and the value chain. With this foundation, the organization's context within sustainability is interpreted by scoping for sustainability topics in the standards, guidelines, industry reports, the organization's prior sustainability reports and competitors' sustainability reports. The combination of these cues, with or without the support of external consultants, helps the organizations, especially those in unconventional industries, reduce ambiguity and complexity experienced when only using the standards and guidelines.

Having a clearer perception of sustainability in the specific organizational context, the organizations set out to involve stakeholders when making sense of which sustainability topics, sub-topics and IROs are relevant or not. The pursuit of stakeholder involvement is in line with the belief of Cooper & Michelon (2022) and Puroila & Mäkelä (2019), that materiality provides value only as an inclusive practice. As found by Giacomini (2025), Puroila & Mäkelä (2019) and Ruiz-Lozano (2021), some organizations underestimate this practice by adopting sustainability issues without reviewing external stakeholder interests and topics anew. A majority of the studied organizations, however, do involve external stakeholder groups in order to learn of additional sustainability topics through new cues of information. Nevertheless, our findings show that the involvement of external stakeholders often is limited to those groups considered most financially valuable to the organization, and that the engagement of them often is limited to communication solely through current and low-quality channels. Furthermore, internal stakeholders such as employees, management and subject matter experts are involved to different degrees to collectively assess whether identified sustainability issues are reasonable to the organizational context and should be part of the compiled list. Conforming to the findings of prior studies, the blended account of

sustainability topics, sub-topics and IROs considered relevant to the organization reflect only certain stakeholders with more or less accuracy.

In line with the findings of Puroila & Mäkelä (2019) and Ruiz-Lozano (2021), our results suggest that despite the distinctiveness of each topic, sub-topic and IRO, as well as the varying degree of empirical basis and information source appropriateness, they are evaluated for materiality based on the same set of criteria set out by the CSRD. Sensemaking is required in organizations to interpret impact materiality and financial materiality of each sustainability issue based on such varying nature, quality and content of available cues of information. Organizational members are jointly involved in scanning, sharing and perceiving the information cues from internal stakeholders, external stakeholders and subject matter experts to arrive at a material or immaterial sustainability issue. First, a score for each criteria is proposed through a suitable unit of measurement and/or motivated qualitatively. Then the score is translated into a grade on a grading range, the criteria grade weighted with other criteria grades, material thresholds set, and materiality determined. In each step and decision during the evaluation, intersubjective meaning is produced, justified, negotiated and sustained between actors. One shared organizational account of what sustainability issues are considered material is thereby synthesized. As anticipated by Edgley (2014), Giacomini (2025) and Puroila & Mäkelä (2019), the final materiality outcome is affected and controlled by the organizational members in charge.

Our study supports the findings of Puroila & Mäkelä (2019) and Ruiz-Lozano (2021), that organizations freely decide on what information to include and exclude, as well as the quantity and quality of materiality disclosure in the sustainability report. The role of sensemaking through enactment is apparent, as the organizations make rational decisions for their sustainability report based on grounded beliefs. These are beliefs regarding what the report is expected to contain, and how the report is supposed to be composed, both in relation to the CSRD and to information users. Based on their own methods for and outcome of materiality, combined with the cues of information received along the way, the organizations' disclosure varies. It varies depending on the extent and emphasis to which they describe, discuss and motivate their materiality processes, practices and results, both the topics considered material and those considered immaterial. The organizations are perceived to make sense of the suitable level of depth in disclosure, trying to balance transparency, detail and usefulness with coherence. This reasoning conflicts with Bolt & Tregidga (2023), Garst

(2022), Puroila & Mäkelä (2019) and Ruiz-Lozano (2021), who argue that understanding of sustainability reports by information users requires complete and precise descriptions of the steps and decisions taken with regard to materiality. Nonetheless, the sustainability report demonstrates a new shared meaning of what the organization views as material, thereby reducing the ambiguity and uncertainty related to which sustainability issues are considered important within the organizational context.

While there is limited research on the connection between materiality outcomes and sustainability actions in organizations, Ackers & Eccles (2015) and Cooper & Michelon (2022) considered it vital that organizations actively respond to the topics they have determined as material. The results of our study indicate that most organizations do see a clear relationship between material topics and sustainability actions, even if certain material topics are prioritized over others. Through sensemaking, the organizational members take rational and effective action through policies and initiatives based on their materiality outcomes. The organizations believe that true alignment between the organization's business strategy and sustainability strategy can add real value and change the sustainability consequences caused by the organization. With the right resources, competences and ownership, the organizations believe they can take control over the sustainability issues most important and determine the sustainability conditions of the organization moving forward.

Ultimately, our findings are in line with the notion of Puroila & Mäkelä (2019) and Ruiz-Lozano (2021), that the context and thus sensemaking is unique to each organization, which suggests that there is no one-size-fits-all method for materiality within sustainability. Inverse to Edgley (2014), Giacomini (2025) and Puroila & Mäkelä (2019), regulators must allow for a certain level of flexibility, due to the unique sensemaking process within each organizational context, thereby preventing universal methods for consistency in materiality to exist. While it may be too early to tell, the attempt by the EU to mandate regulation and standardize sustainability accounting has not harmonized materiality in organizations as anticipated by researchers. Despite an overlap and a shared sense of elements within materiality, there may be no way of harmonizing materiality between organizations with their distinct contexts and organizational sensemaking processes. On the other hand, as expressed by several of the organizations interviewed, reducing complexity and the burden of administration, keeping regulations and standards fixed over time and providing additional guidance may support

organizations' sensemaking. This could result in more consistent conception, application, reporting and actions through materiality, in line with sustainability regulations and standards.

6. Conclusion

6.1 Summary of Contributions

This study set out to investigate organizations' sensemaking of materiality within sustainability, an analytically underexplored lens. Despite its central role in sustainability, materiality has been conceived and applied differently by organizations. As a result, the informational value of sustainability reports to stakeholders has been depleted and the environmental harm caused by organizations to society has gone unchecked. There have been calls for increased standardization and mandated regulations for organizations to abide by, expecting harmonization as a result. With the CSRD and its evolved principle of double materiality, organizations are now in the process of comprehending and operationalizing materiality into their sustainability practices. To understand how organizations make sense of materiality in this new regulatory environment, we pose our research question: "How do Swedish organizations mandated by the Corporate Sustainability Reporting Directive make sense of Materiality?"

The specific contribution of our study is two-fold and lies in developing these two related ideas. First, we map out the wider array of steps organizations take in regard to materiality, concerning conceptualization, assessment, disclosure and strategic actions. Our study thereby contributes with practical insight into where materiality is evident in organizational practices. We go on to show how materiality is comprehended and applied in organizations through the crucial process of sensemaking. Organizational sensemaking of materiality is constantly ongoing and distinguishable not only at definition, assessment and reporting, but already from perception of the sustainability framework all the way up to planned sustainability actions. Organizations continuously have to make sense of the relative importance of some piece of information in the context of a decision to be made. In our findings, we demonstrate the constant confrontation organizations face when making sense of various old and new cues of information from a diverse set of information sources. Through creation, an initial sense of materiality is co-constructed in the organization. Through interpretation, the most plausible account of materiality is synthesized through social interaction. Through enactment, the

conditions and direction moving forward with regard to materiality are determined collectively. By addressing a wider range of materiality activities that require sensemaking, and demonstrating how this sensemaking is realized, we add to the current literature.

Our second contribution relates to sensemaking of materiality being the source of disharmonized materiality processes and practices in organizations. Despite standardization and mandated regulation from the CSRD, there are still ample differences to how organizations make sense of materiality. These differences are recognized in the perception of sustainability frameworks, the conception of the principle of materiality, the identification and assessment of material topics as well as the decisions for sustainability disclosure and actions. In each step of the process, organizations perceive different informational cues and make sense of the perceived cues differently. The context of each organization differs, why also the sensemaking of materiality does so. Harmonizing materiality through increased standardization and mandated regulation may therefore neither be possible nor beneficial. Our findings rather show that the sensemaking of organizations may be supported by reducing the complexity and burden of administration of standards, keeping regulations and standards fixed over time and offering supplementary guidance on materiality.

Altogether, our study illustrates the need for regulatory bodies to recognize the interpretive aspect of organizational responses to sustainability frameworks. Some degree of flexibility is thereby necessary to account for the differences in organizational context and operational reality.

6.2 Limitations of Study

Our findings are subject to limitations. These are important to note when interpreting and understanding the scientific value of our work. Firstly, the study was performed at the later phases of a transitional period where most of the organizations implemented the CSRD for the first time. Although many of the organizations had clear structures and defined processes, the quality of these had not yet been tested in practice, as the organizations had not yet published their first CSRD-compliant report. Therefore, they had neither gotten a chance to evaluate nor critically review them. As organizations collect feedback from auditors, investors, regulators and other stakeholders the processes will likely evolve. It is therefore possible that the challenges and tensions we have identified will evolve over time as sustainability reporting processes become more refined.

Secondly, the decision to conduct interviews with multiple organizations rather than focusing on a single case study creates trade-offs. On one hand, our type of study creates a great breadth, comparability and potential for generalizability. On the other hand, it inevitably limits the depth of the organizational-specific investigation. To combat this problem, we complemented the organizational interviews with expert insights which together could sufficiently capture the dynamics related to the concept and practices. However, additional interviews would enrich the contextual understanding leading to a more nuanced analysis. Due to the time constraint of this study additional interviews were dismissed. Furthermore, an inherent limitation of most qualitative studies is the risk of bias through the personal perspectives and opinions from both the researchers and the interviewees. Lastly, as the study is conducted exclusively in a Swedish context there are some limitations to how transferable the findings are to other geographical contexts.

6.3 Further Research

The potential for future research is vast as the subject of materiality under CSRD-alignment is relatively unexplored. From the limitations of this study, it is possible to identify some interesting angles. Future research could take a more long-term perspective and investigate how the processes evolve over a longer period of time, once there are final outcomes. We studied the organizations during a transitional regulatory period which means that the results possibly will change as the organizations gain more experience and internalize the regulatory framework. This becomes especially interesting in light of the upcoming Omnibus adjustments which may change the reporting requirements resulting in further changed organizational sensemaking and behavior. Furthermore, researchers could move one step beyond the connection of materiality to planned sustainability actions and rather investigate how these actions are realized. This would contribute to the understanding of what the real-world effects of materiality are. Lastly, future studies could investigate regulators' perspective and understanding of materiality as this leads to changed regulations and standards. With the misalignment of the CSRD, and the changes through the Omnibus, the regulator perspective becomes highly relevant to how organizations work with sustainability.

7. References

- Ackers, B., & Eccles, N. S. (2015). Mandatory corporate social responsibility assurance practices. *Accounting, Auditing & Accountability Journal*, 28(4), 515–550. <https://doi.org/10.1108/AAAJ-12-2013-1554>
- Adams, C. A., Alhamood, A., He, X., Tian, J., Wang, L., & Wang, Y. (2021). The Double-Materiality Concept: Application and Issues. *Global Reporting Initiative*. <https://www.globalreporting.org/media/jrbntbyv/griwhitepaper-publications.pdf>
- Ahrens, T., & Chapman, C. S. (2006). Doing qualitative field research in management accounting: Positioning data to contribute to theory. *Accounting, Organizations and Society*, 31(8), 819–841. <https://doi.org/10.1016/j.aos.2006.03.007>
- Bolt, R., & Tregidga, H. (2023). Methodological Insights “Materiality is ...”: Sensemaking and sensegiving through storytelling. *Accounting, Auditing & Accountability Journal*, 36(1), 403–427. <https://doi.org/10.1108/AAAJ-06-2021-5314>
- Brown, J., & Dillard, J. (2014). Integrated reporting: On the need for broadening out and opening up. *Accounting, Auditing & Accountability Journal*, 27(7), 1120–1156. <https://doi.org/10.1108/AAAJ-04-2013-1313>
- Cooper, S., & Michelon, G. (2022). Conceptions of materiality in sustainability reporting frameworks: Commonalities, differences and possibilities. In *Handbook of accounting and sustainability*. Edward Elgar Publishing.
- Council of the European Union. (2022). *Council gives final green light to corporate sustainability reporting directive*. Consilium. <https://www.consilium.europa.eu/en/press/press-releases/2022/11/28/council-gives-final-green-light-to-corporate-sustainability-reporting-directive/>
- Dahlmann, F. (2019). Managing carbon aspirations: The influence of corporate climate change targets on environmental performance. *Journal of Business Ethics*, 158(1), 1–24. <https://doi.org/10.1007/s10551-017-3731-z>
- Directive 2014/95/EU of the European Parliament and of the Council of 22 October 2014 Amending Directive 2013/34/EU as Regards Disclosure of Non-Financial and Diversity Information by Certain Large Undertakings and Groups Text with EEA Relevance, CONSIL, EP, 330 OJ L (2014). <http://data.europa.eu/eli/dir/2014/95/oj>
- Edgley, C. (2014). A genealogy of accounting materiality. *Critical Perspectives on Accounting*, 25(3), 255–271. <https://doi.org/10.1016/j.cpa.2013.06.001>

Edmondson, A. C., & McManus, S. E. (2007). METHODOLOGICAL FIT IN MANAGEMENT FIELD RESEARCH. *Academy of Management Review*, 32(4), 1155–1179. <https://doi.org/10.5465/AMR.2007.26586086>

EFRAG. (2023). *ESRS Set 1*. <https://xbrl.efrag.org/e-esrs/esrs-set1-2023.html>

EFRAG. (2024). *EFRAG IG 1: Materiality Assessment Implementation Guidance* (IG 1). EFRAG Sustainability Reporting; EFRAG website. <https://www.efrag.org/en/projects/esrs-implementation-guidance-documents>

Eisenhardt, K. M., & Graebner, M. E. (2007). THEORY BUILDING FROM CASES: OPPORTUNITIES AND CHALLENGES. *Academy of Management Journal*, 50(1), 25–32. <https://doi.org/10.5465/AMJ.2007.24160888>

European Union. (2022). *Directive (EU) 2022/2464 of the European Parliament and of the Council of 14 December 2022 amending Regulation (EU) No 537/2014, Directive 2004/109/EC, Directive 2006/43/EC and Directive 2013/34/EU, as regards corporate sustainability reporting (Text with EEA relevance)* (No. 2022/2464). <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32022L2464>

European Union. (2025). *Proposal for a DIRECTIVE OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL amending Directives 2006/43/EC, 2013/34/EU, (EU) 2022/2464 and (EU) 2024/1760 as regards certain corporate sustainability reporting and due diligence requirements* (No. COM/2025/81 final). <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex:52025PC0081>

FAR. (n.d.-a). *CSRD Hållbarhetsrapportering – syfte & bakgrund*. FAR. Retrieved November 26, 2025, from <https://www.far.se/kunskap/hallbarhet/csr-d-bakgrund-och-syfte/>

FAR. (n.d.-b). *Frågor och svar om CSRD*. FAR. Retrieved December 6, 2025, from <https://www.far.se/kunskap/hallbarhet/fragor-och-svar-om-csr-d/>

Fetting, C. (2020). *The European Green Deal* (No. ESDN Report 2/2020). European Sustainable Development Network (ESDN) Office, Vienna. https://www.esdn.eu/fileadmin/ESDN_Reports/ESDN_Report_2_2020.pdf

Finansinspektionen. (2025, October 15). *Hållbarhetsrapportering (NFRD/CSRD)*. <https://www.fi.se/sv/hallbarhet/regler/hallbarhetrapportering/>

Frishkoff, P. (1970). An Empirical Investigation of the Concept of Materiality in Accounting. *Journal of Accounting Research*, 8, 116–129. <https://doi.org/10.2307/2674697>

- Garst, J., Maas, K., & Suijs, J. (2022). Materiality Assessment Is an Art, Not a Science: Selecting ESG Topics for Sustainability Reports. *California Management Review*, 65(1), 64–90. <https://doi.org/10.1177/00081256221120692>
- Giacomini, D., Rocca, L., & Tonoli, D. (2025). Exploring Materiality and Stakeholder Engagement in European Water Utilities' Sustainability Strategies, Organizational Practices, and Reporting. *Business Strategy and the Environment*, 34(2), 2607–2629. <https://doi.org/10.1002/bse.4109>
- Gioia, D. A., Corley, K. G., & Hamilton, A. L. (2013). Seeking Qualitative Rigor in Inductive Research: Notes on the Gioia Methodology. *Organizational Research Methods*, 16(1), 15–31. <https://doi.org/10.1177/1094428112452151>
- Hahn, T., Preuss, L., Pinkse, J., & Figge, F. (2014). Cognitive frames in corporate sustainability: Managerial sensemaking with paradoxical and business case frames. *Academy of Management Review*, 39(4), 463–487. <https://doi.org/10.5465/amr.2012.0341>
- Lehner, O. M., Nicholls, A., & Kapplmüller, S. B. (2022). Arenas of Contestation: A Senian Social Justice Perspective on the Nature of Materiality in Impact Measurement. *Journal of Business Ethics*, 1–19. <https://doi.org/10.1007/s10551-022-05158-2>
- Maitlis, S., & Christianson, M. (2014). Sensemaking in Organizations: Taking Stock and Moving Forward. *Academy of Management Annals*, 8(1), 57–125. <https://doi.org/10.5465/19416520.2014.873177>
- Maitlis, S., & Sonenshein, S. (2010). Sensemaking in Crisis and Change: Inspiration and Insights From Weick (1988). *Journal of Management Studies*, 47(3), 551–580. <https://doi.org/10.1111/j.1467-6486.2010.00908.x>
- Puroila, J., & Mäkelä, H. (2019). Matter of opinion: Exploring the socio-political nature of materiality disclosures in sustainability reporting. *Accounting, Auditing & Accountability Journal*, 32(4), 1043–1072. <https://doi.org/10.1108/AAAJ-11-2016-2788>
- Qu, S. Q., & Dumay, J. (2011). The qualitative research interview. *Qualitative Research in Accounting & Management*, 8(3), 238–264. <https://doi.org/10.1108/11766091111162070>
- Reimsbach, D., Schiemann, F., Hahn, R., & Schmiedchen, E. (2020). In the Eyes of the Beholder: Experimental Evidence on the Contested Nature of Materiality in Sustainability Reporting. *Organization & Environment*, 33(4), 624–651. <https://doi.org/10.1177/1086026619875436>

- Rimmel, G. (Ed.). (2025). *Accounting for Sustainability* (2nd ed.). Routledge.
<https://doi.org/10.4324/9781003488446>
- Ripple, W. J., Wolf, C., Newsome, T. M., Barnard, P., & Moomaw, W. R. (2020). World Scientists' Warning of a Climate Emergency. *BioScience*, 70(1).
<https://www.jstor.org/stable/26891410>
- Rowbottom, N. (2023). Orchestration and consolidation in corporate sustainability reporting. The legacy of the Corporate Reporting Dialogue. *Accounting, Auditing & Accountability Journal*, 36(3), 885–912. <https://doi.org/10.1108/AAAJ-06-2021-5330>
- Ruiz-Lozano, M., De Vicente-Lama, M., Tirado-Valencia, P., & Cordobés-Madueño, M. (2021). The disclosure of the materiality process in sustainability reporting by Spanish state-owned enterprises. *Accounting, Auditing & Accountability Journal*, 35(2), 385–412. <https://doi.org/10.1108/AAAJ-08-2018-3629>
- Sandberg, J., & Tsoukas, H. (2015). Making sense of the sensemaking perspective: Its constituents, limitations, and opportunities for further development. *Journal of Organizational Behavior*, 36, S6–S32. <https://doi.org/10.1002/job.1937>
- Vollmer, H. (2024). Accounting and the shifting spheres: The economic, the public, the planet. *Accounting, Organizations and Society*, 113, 101574.
<https://doi.org/10.1016/j.aos.2024.101574>
- Weick, K. E. (1995). *Sensemaking in Organizations*. Sage Publications.

8. Appendix

8.1 Appendix A: Interview guide

The following questions have served as a guiding structure when conducting the interviews. Some additional questions have been included while others have been excluded depending on the interview in line with the semi-structured interview method. The interview guide was modified to suit the expert perspective in preparation for those interviews.

Introduction

Describe ourselves, the purpose of the interview and create contextual understanding.

Background and Context

1. Can you describe your role and how you are involved in the materiality process?
 - What has your professional journey looked like and what has led you to this role?
2. How would you describe your organization's overall approach to sustainability and reporting?

Understanding Materiality

3. What does materiality mean to you and your organization?
 - What does double materiality specifically mean to you and your organization?
4. Can you describe the processes and practices your organization follows when conducting a double materiality assessment?
 - Have you used external consultants in any part of your materiality assessment?
5. When identifying or suggesting topics, how are internal and external stakeholders involved in the process?
 - Could you give an example of how many topics, subtopics, and IROs you have identified?
6. How do you determine which topics are considered material?
 - How detailed do you describe your double materiality assessment process and practices in your report, what content do you disclose?
7. How does the outcome of material topics affect your sustainability actions?
 - How do you prioritize and allocate resources between material topics to reduce risks and pursue opportunities in sustainability?

Perspectives on the CSRD

8. How has your organization responded to the CSRD reporting obligations, and to what extent do you perceive CSRD as positive versus negative?

- Would increased standardization of the double materiality assessment help your organization, or is flexibility important?
- How does your organization navigate between establishing structured processes for double materiality and remaining adaptable to future changes in standards and regulations?

Process and Reflection

9. Looking back, what were the most important moments or challenges in your materiality process and how would you have done them differently?

10. Looking ahead, what do you expect to be the most important moments or challenges in your materiality process?

11. What key lessons or advice would you share with others conducting a double materiality assessment?

Conclusion

- Is there anything else you want to add?
- Is there any document you would be able to share relating to the materiality process including how topics were included or excluded, assessed, prioritized, and addressed?

8.2 Appendix B: Organization interviews

Interview code	Type of organization	Role	Date	Duration	Format
Interviewee A	Consumer goods	Chief sustainability officer	31/10-25	48 min	Online
Interviewee B	Insurance	Senior ESG-manager	4/11-25	45 min	Online
Interviewee C	Passenger rail operator	Sustainable supply chain specialist	5/11-25	58 min	Online
Interviewee D	Forestry	Sustainability controller, Head of group accounting and internal control	7/11-25	57 min	Online
Interviewee E	Software & cloud services	Sustainability manager	12/11-25	55 min	Online
Interviewee F	Food and beverage	Sustainability Project Manager & Quality Lead	13/11-25	47 min	Online
Interviewee G	Online IT and technology	Sustainability Communication Manager	28/11-25	42 min	Online

Table 4: Overview of session details for organization interviews.

8.3 Appendix C: Expert interviews

Interview code	ESG background	Date	Duration	Format
Expert X	Impact director at an impact investment firm	5/11-25	48 min	Online
Expert Y	Founder and CEO of an ESG consultancy	14/11-25	54 min	Online
Expert Z	Senior advisor at a sustainability consultancy	28/11-25	48 min	Online

Table 5: Overview of session details for expert interviews.

8.4 Appendix D: The use of generative AI

When conducting this study AI tools have been utilized. The primary use has been to improve grammar, formulation, sentence structure and check spelling through OpenAI's large language model Chat GPT 5. All suggestions have been carefully evaluated by us to avoid simple word replacement as well as ensuring that the language and phrasing used is in line with our own writing style. Hence no text has been directly integrated into the thesis without consideration and modification.

The secondary use has been as a brainstorming partner to develop ideas and gather inspiration in the early stages of the study. The tool helped us to evaluate and explore alternative perspectives, but at no point did we include any text or content which formed a basis for our work. Hence the input served simply as inspiration and was not a fundamental part of the analysis in any way.

Generative AI models were not used in the transcription process of interviews to ensure GDPR-compliance while also avoiding misinterpretation of contents. This is due to AI's limited ability to understand human communication beyond plain text.

The generative AI thus contributed with increased efficiency when writing as well as improved flow and readability of the text while not affecting our reasoning, interpretations nor findings. The academic integrity of this thesis is thereby retained.