

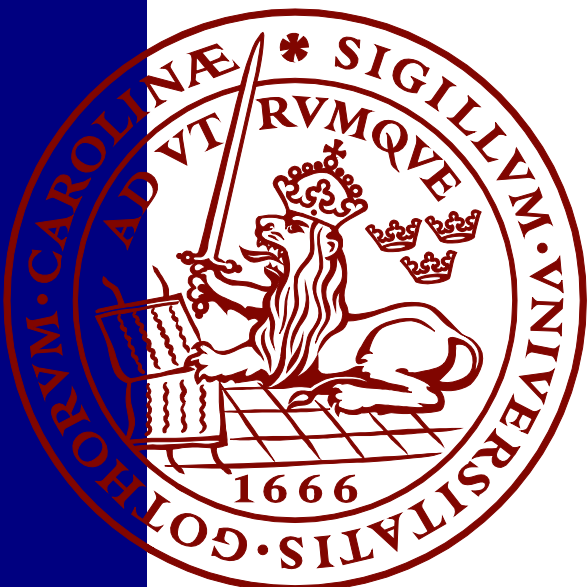
Navigating towards Corporate Sustainability

*A Case Study of Social Learning in the Sustainability Committee
of An Indonesian Company*

Yolan Erlanda

Master Thesis Series in Environmental Studies and Sustainability Science,
No 2024:004

A thesis submitted in partial fulfillment of the requirements of Lund University
International Master's Programme in Environmental Studies and Sustainability Science
(30hp/credits)



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Submitted May 10th, 2024

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Abstract:

Corporations are often linked to environmental and social issues due to profit motives. To keep in check with those concerns, many establish sustainability committees, however, research gaps persist in understanding their internal processes and theoretical approaches. This study employs social learning theory to examine a management-level sustainability committee in an Indonesian company. Interviews and observations reveal that the committee engages in social learning processes, fostering knowledge building and collective action. Moreover, as the committee members practice social learning loops, they demonstrate the capacity to continuously evolve and adapt to the issues associated with sustainability, but there is limited potential for transformative change. Taking an action-oriented approach, this research provides suggestions to overcome the identified key barriers to social learning. While the findings are context-specific, the techniques employed to analyze the internal processes might provide insights into the use of social learning as a theoretical approach in other corporate settings.

Keywords: Corporate Sustainability, Sustainability Committee, Management Level, Social Learning, Internal Processes, Case Study

Word count: 11,972

Acknowledgements

In the name of Allah, the most gracious, the most merciful,

All thanks to Allah, the Lord of all worlds, and may prayers and peace be upon the Prophet Muhammad and upon his companions. This achievement is dedicated to my late father, H. Subur ibn H. Emad, for without his support I would not have reached this point. What comes good from this thesis, may Allah grant the rewards for him instead of me.

I extend my gratitude to my family, my LUMES classmates, and my Indonesian fellows at PPI Swedia for sharing this adventure. I would like to thank my supervisor and my thesis-group buddies for their support and constructive feedback throughout this research. I appreciate all the teachers and other staff at LUCSUS for their valuable insights and contributions during my time studying at Lund University.

Also, I thank all the people who participated in my research for sharing their time and experiences with me and the company for their trust in giving me permission to conduct research. Finally, I feel grateful for this opportunity to study abroad which was made possible by LPDP, the scholarship from the Government of Indonesia. Alhamdulillah.

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List of Abbreviations

- BoD : Board of Directors
- BPO : Business Process Owner
- CSR : Corporate Social Responsibility
- ESG : Environmental, Social, and Governance
- RQ : Research Question
- SC : Sustainability Committee
- SWR : Sustainability War Room
- TBL : Triple Bottom Line

1 Introduction

Corporate sustainability is increasingly gaining popularity among companies due to the mounting pressure to balance their economic interests with environmental and social responsibilities (Naciti et al., 2022; Wang et al., 2020). As a term, corporate sustainability is commonly defined by the triple bottom line (TBL) concept which entails an equal emphasis on profit, people, and the planet (Strand, 2014). Frequently, companies operating across diverse sectors prioritize financial gain above the environmental and social aspects (Thabrew et al., 2018). As a result, they engage in business operations that are not in line with the principles of sustainable development, causing ecological damage and negative effects on human well-being (Svensson et al., 2016). Therefore, companies are under pressure from various stakeholder groups to reorient their practices (Wang et al., 2020). The first group consists of shareholders, board, managers, and employees which can be categorized as internal pressure (Wang et al., 2020). Secondly, companies face market pressure which combines elements from suppliers, customers, competitors, and industry associations (Wang et al., 2020). Thirdly, there is coercive pressure from the government (Wang et al., 2020). Lastly, there are concerns regarding corporate sustainability from non-government organizations, media, and public, thus contributing to social pressure (Wang et al., 2020). On this basis, corporations are considered to have a significant role in promoting sustainability by implementing business strategies that adhere to social and environmental stewardship. Kiesner & Baumgartner (2019, p. 1608) note that “sustainable development is unlikely without the sustainable development of organizations”.

Such adaptations integrated by companies include a realignment of their business plans, a change in their business practices, and a modification of their governance processes (Naciti et al., 2022). One of the most prevalent governance mechanisms to embed sustainability into corporations is through the creation of a sustainability committee (SC) (Alcaide-Ruiz et al., 2022; Burke et al., 2019). Although it is typically found at the board level (Alcaide-Ruiz et al., 2022), such committees also exist at the management level and are tasked with developing corporate sustainability strategies, conducting their implementation, and reporting directly to the boards (IFC, 2021). In both contexts, the main principle of SCs is to bring together people with diverse knowledge, skills, and interests to create shared value to cope with the company’s sustainability challenges that are complex yet interconnected (Burke et al., 2019; Elmaghrabi, 2021). For companies with elaborate divisional and functional structures, SCs might serve as a necessary intervention to prevent them working in silos

and enhance internal cooperation (de Waal et al., 2019). Consequently, this governance mechanism is regarded as capable of enabling equilibrium among the three aspects of TBL (Hussain et al., 2018).

An array of research suggest positive relationships between SCs and corporate sustainability performance or reporting, suggesting that companies with SCs being embedded in their organizations tend to perform better in addressing sustainability issues (Biswas et al., 2018; Khan et al., 2024; Li et al., 2023; Velte & Stawinoga, 2020). However, another study reveals the opposite relationships due to the fact that the establishment of SCs might be rather symbolic to improve the company's reputation (Abdullah et al., 2023). Following my literature review, most studies have focused on the corporate sustainability performance in relation to their SC characteristics (Abdullah et al., 2023; Biswas et al., 2018; Burke et al., 2019; Dziri & Jarboui, 2024; Elmaghrabi, 2021; Gull et al., 2024; Li et al., 2023; Qaderi et al., 2022; Villalba-Ríos et al., 2023), thereby lacking research on the internal processes. In addition to that, there is also a lack of theoretical foundations used in the literature to analyze such committees (Alcaide-Ruiz et al., 2022). Moreover, the existing research has shown less focus on the management-level SC since board-level SCs dominate the discourse (Alcaide-Ruiz et al., 2022). These gaps helped me focus the scope of my research and choose which theory would be appropriate for analyzing SCs.

To address the research gaps, this thesis aims to explore the internal processes within a management-level SC using social learning as my theoretical approach. By employing this approach, I hope to offer insights into the use of the theory in analyzing such committees. I choose social learning because it is considered to have the capacity to bring about better governance necessary to tackle complex sustainability challenges through participation and collaboration (Cundill & Rodela, 2012; d'Angelo & Brunstein, 2014; Juwel & Ahsan, 2019; Wehn et al., 2018; Zhang et al., 2020). In the context of corporate sustainability, social learning promotes the exchange of ideas and shared understandings that are important for companies to adapt and build knowledge (Castillo, 2022). This is achieved by enabling their employees to collaboratively develop solutions to address sustainability problems associated with their companies (Castillo, 2022). When the social learning process takes place according to its varied depths of reflexivity, which are referred to as learning loops, then the more profound the level of reflexivity, the greater the potential impact that social learning could have on influencing a change (Pahl-Wostl, 2009). In this thesis, I analyze whether social learning is exercised in SC processes to facilitate collective cognitive changes and decision-making as members navigate their company towards corporate sustainability. Subsequently, I try to identify whether there are barriers that prevent social learning from occurring or performing effectively. Therefore, with all the results from this study, I could describe the potential role of social learning in corporate

sustainability context, which might provide companies with valuable information regarding the merits of such a concept.

For this purpose, I conduct a case study of management-level SC at an Indonesian power company. The research questions (RQ) are as follows:

- Overarching RQ: In the case of a Sustainability Committee in an Indonesian power company, what is the role of social learning in navigating towards corporate sustainability?
 1. Sub RQ1: Does the committee practice social learning and if so, how?
 2. Sub RQ2: Does the committee practice social learning loops?
 3. Sub RQ3: What are the key barriers to social learning within the committee and how can they be overcome?

1.1 Relevance to Sustainability Science

My thesis takes an action-oriented approach by looking into real-world issues. This approach is central for sustainability science as it embraces the need for actionable insights in sustainability research (Miller et al., 2014). As a result, my study provides suggestions or interventions for the company by identifying barriers and potential improvements in social learning within the SC, translating the study into practical benefits. On the other side, considering research gaps in the SC literature as mentioned in the previous section, this study aims to provide a different perspective to the prominent discourse on SCs by demonstrating features of internal processes that may facilitate social learning. It could simultaneously offer insights on the techniques to utilize social learning to evaluate internal processes within such committees that might be replicated in other corporate settings. Although the suggestions to overcome social learning barriers resulting from this research may not be generalizable, the scalability and transferability of such techniques are necessary for broader sustainability transformation (Lang et al., 2017).

Understanding SCs, including their internal processes, is crucial as they play a role in sustainability by providing an alternative approach to corporate governance (Li et al., 2023). Driven by mounting external pressure on companies (Høgevoid et al., 2015; Wang et al., 2020), these committees are designed to avoid environmental and social harms that corporations might cause as they gain profits (Burke et al., 2019; García-Sánchez et al., 2019; Hussain et al., 2018). They lead the integration of sustainability initiatives based on TBL into corporate strategies and operations, with an equal focus on profit, people, and the planet (Abdullah et al., 2023). This relationship between business activities

and sustainability reflects one the characteristics of sustainability science, which seeks to unravel the intricate interplay between nature and society (Kates et al., 2001).

2 Background

2.1 Sustainability Committee

Recently, the establishment of Sustainability Committees has been widely recognized as a strategy to embrace sustainable development principles within companies. The number of publications on SC has had a substantial growth since 2014 (Alcaide-Ruiz et al., 2022). In 2021, there were over forty articles (Alcaide-Ruiz et al., 2022), followed by 61 and 74 publications in 2022 and 2023 respectively. This is a significant increase compared to the less than five publications each year prior to 2014 (Alcaide-Ruiz et al., 2022). The creation of SCs is mostly voluntary (García-Sánchez et al., 2019). In the literature, its term is interchangeable with “CSR committee” and “environmental committee” (Alcaide-Ruiz et al., 2022), as well as “ESG committee”. The main tasks of SCs are to develop, implement, and monitor sustainability strategies in order to balance social and environmental issues with their economic interests (Burke et al., 2019; García-Sánchez et al., 2019; Hussain et al., 2018). Frequently, the committee is also responsible for delivering corporate sustainability reports to inform stakeholders of the organization's advancements in making impacts on sustainability (Burke et al., 2019).

According to my literature review, the characteristics of SCs can vary in different contexts despite its origins having similar objectives. For instance, Elmaghrabi (2021) categorizes SCs into two levels, the board level and the management level. Alcaide-Ruiz et al. (2022) indicate that most studies focus on SCs at the board level, leaving the management-level SC under explored. Abdullah et al. (2023) characterize a board-level SC as an internal body which consists of both internal and independent directors, convened on a quarterly basis with its primary responsibility to oversee the sustainability strategy of an organization. This suggests that the board's function is to exercise supervision. While the board-level SC sets the overarching direction and policies, the management-level SC ensures their practical implementation across the organization (Elmaghrabi, 2021). The management-level SC members are employees who represent various business processes (Elmaghrabi, 2021; IFC, 2021). Considering the purpose of SCs to bring together people from a variety of diverse backgrounds, skill sets, and areas of interest in order to have a wider range of views, opinions, and experiences (Elmaghrabi, 2021), a management-level SC may comprise a larger number of members in comparison to the board-level SC. They engage in discussions with each other about corporate

sustainability issues, lead the implementation, and then report to the board of directors (BoD) (Elmaghrabi, 2021; IFC, 2021). Management-level SCs represent an important part of corporate sustainability efforts as the members are responsible for companies' daily operations (IFC, 2021). They ensure the integration of sustainable practices throughout organizational processes with the aim of guiding companies into achieving corporate sustainability (IFC, 2021).

2.2 Case

Based on those SC categorizations, the SC in my case study can be classified as a management-level SC. The composition of the committee includes employees from multiple divisions, and there are no members from outside the organization. A top-level manager from the Sustainability Division coordinates the committee and is responsible for arranging the report to the BoD. As shown in Figure 1, the committee is divided into nine workstreams with each responsible for delivering different tasks, including (1) climate change management, (2) environmental management, (3) social, (4) governance, (5) communication and publication, (6) capacity building, (7) digitalization, (8) breakthrough monitoring, and (9) financing and risk. Climate change management is the only workstream that has cascading sub-workstreams, namely renewable expansion, green ecosystems, and decarbonization of fossil plants. Due to the fact that every workstream comprises representatives up to twenty-one divisions, the structure of the SC is large and encompasses a wide range of focus. It is stated that their main objectives are to pursue United Nations Sustainable Development Goals, and to develop, implement, and monitor the corporate sustainability initiatives (PT PLN Persero, 2023a).

The SC was established in mid-2023 and conducts three different types of meetings regularly (PT PLN Persero, 2023b). The first meeting is called Environmental, Social, Governance (ESG) Performance Monitoring, which convenes eight workstreams except the climate change management workstream. The latter has their own meeting, known as Decarbonization Crack Team, and is joined by members from green ecosystems and decarbonization of fossil plants sub-workstreams. These two meetings take place on a weekly basis. Lastly, there is Sustainability War Room. In this meeting, the SC representatives report to the BoD about the outcomes or progress from both ESG and Decarbonization initiatives. This meeting is scheduled to occur biweekly. Among these three meetings, ESG and Decarbonization meetings serve as the internal processes of the SC since the BoD is not considered members of the committee, as illustrated in Figure 1. Beyond those meetings, there is actually another meeting called Investment War Room where renewable expansion sub-workstream is included. In this meeting, however, renewable expansion is merely one of the issues

discussed among other topics linked to the company's financial situations, and not necessarily related to sustainability. Consequently, it does not fully constitute as part of the company's SC meeting.

The company where this research takes place is a state-owned electricity company of Indonesia. They run end-to-end electricity business, including planning, construction, power generation, transmission, distribution, and retail to serve millions of customers, both residential and industrial, across the country (PT PLN Persero, 2022). Considering their dominant role in the electricity landscape (Maulidia et al., 2019), the strategic focus on sustainability at every aspect of their business practices is not only essential for their own success but also critical for driving sustainable development at a national level. With a broad service area and a complex business profile, the company and their subsidiaries have a large organizational structure that includes diverse divisional, regional, and functional foci—often referred as business process owner (BPO). Although the SC does not comprise all BPOs or divisions in the company, it still serves as an interesting case to study as this collaborative working group is strategically placed under the BoD supervision. In this thesis, the scope is limited to ESG and Decarbonization meetings, whose memberships are shown in Figure 1.

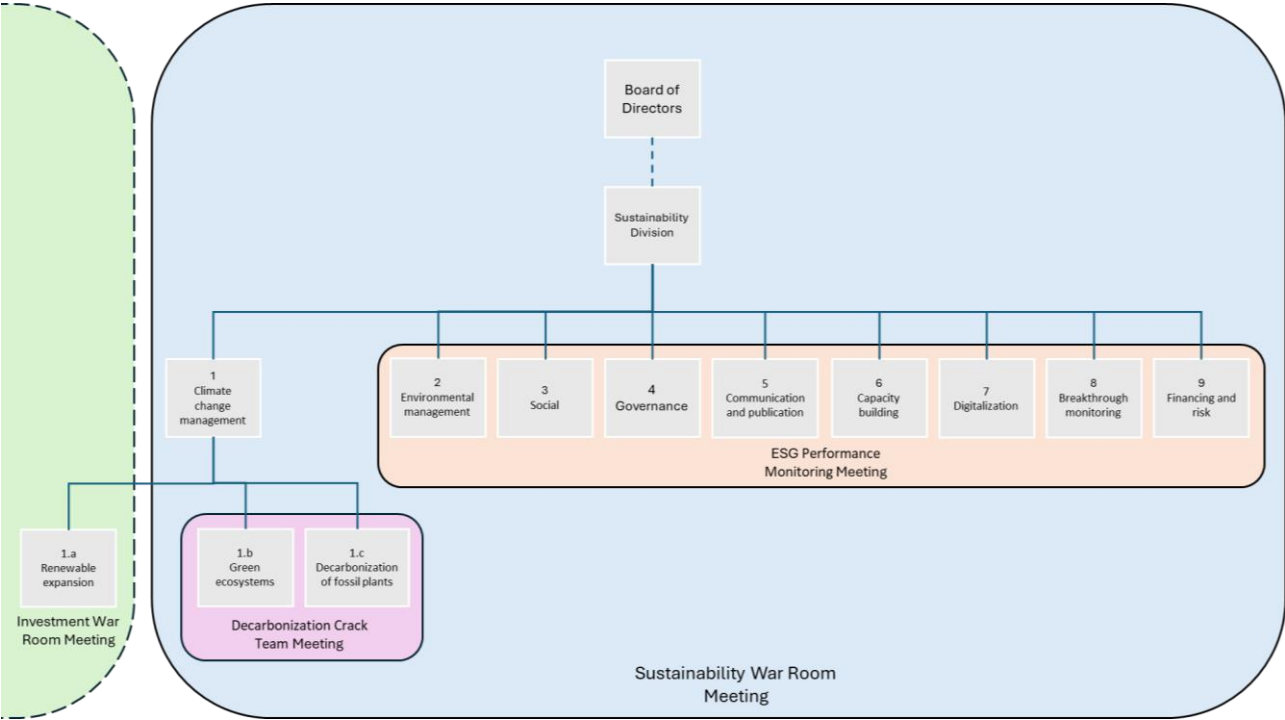


Figure 1. Structure of the Sustainability Committee and the scope of each meeting. Numbered rectangles are workstreams and sub-workstreams. The blue area represents Sustainability War Room meeting, the orange one represents ESG, the plum is Decarbonization, and the green is Investment War Room. The dotted line signifies a process or body external to the SC. The image was adopted from PT PLN Persero (2023b, p. 8).

3 Theoretical Approach

After learning the gaps in the SC literature and narrowing down my research focus, I find social learning theory to be a suitable theoretical approach for my case study because it corresponds to the basic premise of SCs, which is to involve individuals from different backgrounds and contexts to collectively address their common sustainability issues (Burke et al., 2019; d'Angelo & Brunstein, 2014; Elmaghrabi, 2021). Choosing this theory enabled me to develop my research questions and select appropriate data collection methods and data analysis strategy. This chapter presents the definition of social learning and how it is understood in the context of corporate sustainability. The following section focuses on the three distinct types of social learning, known as learning loops, and then proceeds to look at concerns regarding the significance of social learning.

3.1 Social Learning

In the literature, the notion of social learning is increasingly gaining support as a potential solution for sustainable development. Concerns about sustainable development are rooted in complex socio-ecological systems, thereby requiring adaptations in the conventional decision-making process (Pahl-Wostl, 2015). To come up with effective solutions to address dilemmas associated with sustainability, the application of social learning concept is thus considered necessary (d'Angelo & Brunstein, 2014; Wehn et al., 2018; Zhang et al., 2020). It promotes participation and collaboration to build capacity for better governance practices (Cundill & Rodela, 2012; Jewel & Ahsan, 2019; Pahl-Wostl, 2015). Social learning is coined as "learning together to manage together" (d'Angelo & Brunstein, 2014, p. 277). Among various definitions of social learning, this thesis adopts the definition proposed by Reed et al. (2010).

According to Reed et al. (2010), social learning is characterized by three elements. Firstly, a member of the group has to gain new knowledge or enhanced understanding of something disseminated within the group (Reed et al., 2010). Secondly, the same knowledge has to be understood by other members of the group, leading to collective learning (Reed et al., 2010). On this second element, Allasiw et al. (2023) state that this collective learning in the group drives members to focus on a common interest and objective, setting aside their individual interests. As for the third element, there has to be social interactions happening within the group in order to facilitate the first two elements (Reed et al., 2010). Reed et al. (2010) propose that these social interactions occur through two modes, namely information transmission and deliberation. Information transmission pertains to the straightforward acquisition of novel knowledge via social interaction, whilst deliberation

encompasses dialogue and an exchange of arguments (Reed et al., 2010). Social learning can only be considered to have occurred when all three of these components take place (Reed et al., 2010). It signifies as “a change in understanding that goes beyond the individual to become situated within wider social units or communities of practice through social interactions between actors within social networks” (Reed et al., 2010, p. 6).

In the context of corporate sustainability, or also commonly known in the literature as corporate social responsibility (CSR) (Montiel, 2008), social learning facilitates the knowledge exchange and shared understandings that are essential for businesses to evolve and adapt to sustainability challenges they face (Castillo, 2022). It may function as a “soft” solution that complements the company's usual primary emphasis on “hard” technocentric strategies (Kiesner & Baumgartner, 2019). Companies realize this by empowering their employees to collectively develop strategies to tackle sustainability issues linked to their organizations (Castillo, 2022). Castillo (2022) suggests that social learning in the corporate setting requires a continuous and deliberative process influenced by several factors such as reflexivity, systemic understanding, integration of decision-making and learning, as well as exchange of feedback and information. These factors pointed out by Castillo (2022) align with the fundamental concept of SCs which aims to engage people with diverse backgrounds in discussions and collaborative efforts to address intricate sustainability issues (Burke et al., 2019; Elmaghrabi, 2021), hence preventing siloed working mentality (de Waal et al., 2019). Although elaborated in research conducted by Castillo (2022), social learning theory remains relatively unexplored in corporate sustainability literature since the majority of research concentrate on organizational learning (Fortis et al., 2018). Therefore, my thesis could advance the existing academic debate between corporate sustainability and the broader concept of learning within organizations.

3.2 Social Learning Loops

While the previous explains how social learning promotes the collective cognitive changes, this part pertains to how it facilitates the decision-making process which is then classified into three learning loops (Medema et al., 2014), referred to as single-, double-, and triple-loop learning. Learning loops are mechanisms that describe how information or outcomes from a system are fed back into that system, influencing future behavior or outcomes (Johannessen et al., 2019; Pahl-Wostl, 2009). The way a group responds to such information or experience determines which learning loop they practice. Each loop represents different levels of depth and complexity of social learning processes within a group of people (Johannessen et al., 2019). Understanding these loops is important for my

thesis to evaluate the degree of reflexivity exhibited in the discussions within the company's SC. The deeper the level of reflexivity, the bigger the influence that social learning might have in driving change (Pahl-Wostl, 2009). This part focuses on the respective definitions and properties of each of those terms, which are then used as the basis of analysis.

3.2.1 Single-Loop Learning

Single-loop learning takes place when a group of people adapts to new information by making small adjustments to their future behaviors or approaches in their routines without questioning the established frameworks or goals (Johannessen et al., 2019; Pahl-Wostl, 2009). They process the feedback based on their current frameworks or goals to accomplish the desired objectives as a group. In other words, with single-loop learning, people or organizations seek to maintain stability and efficiency by making incremental modifications to existing routines (Moynihan, 2005). It is usually characterized by easily implemented solutions or optimizations in performance (Johannessen et al., 2019). Single-loop merely assesses the discrepancy between anticipated and actual results (Castillo, 2022). However, it may be insufficient for addressing complex or systemic challenges that require deeper levels of reflexivity and adaptation as it does not challenge the fundamental assumptions (Pahl-Wostl, 2009). The question guiding single-loop learning is “are we doing things right?” (Medema et al., 2014).

3.2.2 Double-Loop Learning

In double-loop learning, after learning new understandings, a group of people engage in reflective practices by questioning the established frameworks or goals, and contemplating changes to these aspects (Johannessen et al., 2019; Medema et al., 2014; Pahl-Wostl, 2009; Shaw & Kristjanson, 2014). This process might happen because the new circumstances could not align with the established frameworks (Johannessen et al., 2019; Pahl-Wostl, 2015), or due to current actions fail to accomplish the intended goals (Pahl-Wostl, 2015). This method of reframing the framework, which guides the routines, facilitates deeper understanding and the potential for more profound change (Moynihan, 2005). It promotes creativity and innovation by encouraging exploration and experimentation with alternative approaches (Pahl-Wostl, 2009). In the corporate setting, for example, it may result in new policies or objectives (Johannessen et al., 2019), and more successful corporate sustainability initiatives (Castillo, 2022). The relevant question for double-loop learning is “are we doing the right things?” (Medema et al., 2014).

3.2.3 Triple-Loop Learning

First of all, it is important to acknowledge that the literature contains differing definitions of triple-loop learning (Kwon & Nicolaidis, 2017). The definition that is utilized for this thesis is the one proposed by Medema et al. (2014). Triple-loop learning is the most reflexive form among all loops. It is a type of meta-learning that questions the paradigm and values that form the basis of the established frameworks or goals (Medema et al., 2014). Medema et al. (2014) liken the single-loop to "following the rules", the double-loop to "breaking the rules", and the triple-loop to "the rules". This transformative reflection is aiming to change the underlying paradigm. However, it should be noted that implementing triple-loop learning might be counterproductive if practiced too frequently which leads to a constant change of a group's direction without allowing for sufficient consolidation of previous learnings (Pahl-Wostl, 2009). To reach this level of reflexivity, it is not necessary to go through single- and double-loop learning one after another, rather, it is sufficient to do triple-loop learning whenever new information or insights gained from experience are encountered (Tosey et al., 2012), as depicted in Figure 2. When triple-loop learning takes place, it modifies the paradigm or values and, therefore, will affect the frameworks or goals and the routines. Its guiding question is "how do we decide what is right?" (Medema et al., 2014).

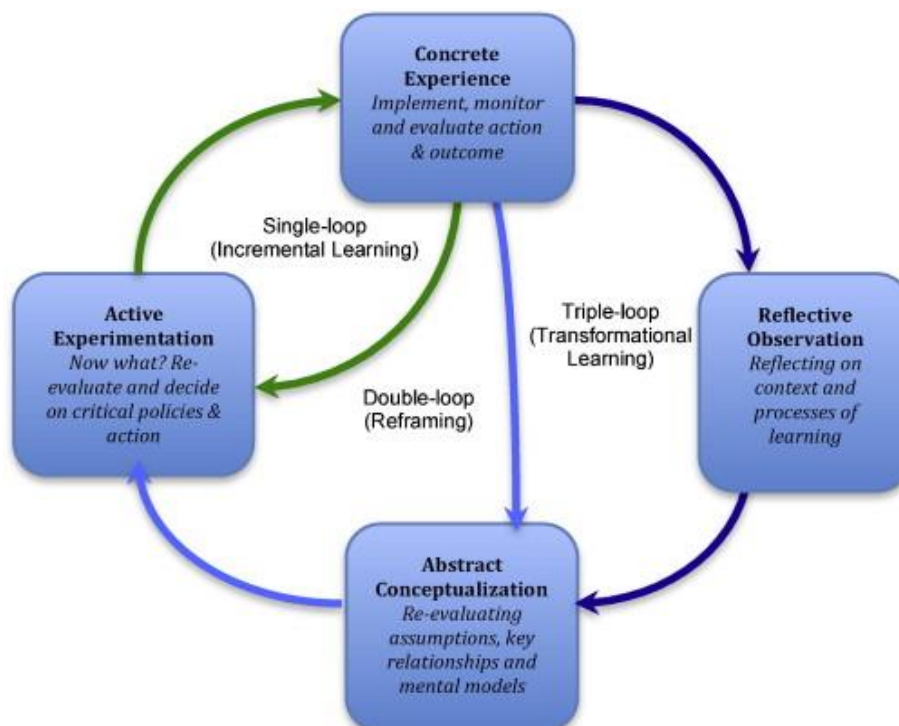


Figure 2. Illustration of multi-loop social learning pathways (Medema et al., 2014, p. 28), indicating non-sequential order.

3.3 Significance of Social Learning

This part relates to my third sub-research question as I focus on potential barriers to social learning and suggestions to address them. If indicated in the results of this study that social learning does not occur within the SC, it is important to identify the causes and consider measures so that social learning could later be adopted by the committee. As mentioned earlier, social learning is a useful governance technique since it could foster the knowledge exchange and shared understandings to help corporations cope with their sustainability concerns (Castillo, 2022). The main feature of social learning in sustainability context is its potential capacity to lead to a collective action on common sustainability issues (Assuah & Sinclair, 2019). However, it should be noted, that the outcomes from such practices might not necessarily align with sustainability (Reed et al., 2010).

On the other hand, if social learning takes place to some extent within the SC and requires quality improvement, it is important to identify obstacles and necessary changes to existing social learning processes within the SC to ensure that their corporate sustainability goals are effectively pursued and achieved. The focus here is to enhance their social learning quality so that the SC is better equipped to achieve desired outcomes (de Kraker, 2017; Dlouhá et al., 2013; Ernst, 2019b; Garmendia & Stagl, 2010). In his case studies, Garmendia & Stagl (2010) reveal that poor social learning quality could result in unfavourable learning outcomes, such as limited mutual understanding within a group and a hesitancy to act as catalysts for change. In essence, a positive correlation exists between the level of quality and the extent to which social learning facilitates anticipated results and impacts. There are factors that might influence social learning quality. For example, Ernst (2019b) points out the following: participation format, access to information, facilitation, diversity of participants, participants' characteristics, context, procedural fairness, legitimacy, effectiveness, trust, network building, and conflict resolution.

4 Methodology

The epistemological and ontological approach of this thesis is grounded in a constructivist approach, recognizing the socially constructed nature of knowledge and reality within the context of corporate sustainability and social learning (Jonassen, 1991). My thesis seeks to understand how individuals within the management-level SC construct their understanding of corporate sustainability and engage in social learning processes. From an epistemological standpoint, the emphasis is placed on understanding how knowledge is actively constructed through social interactions within the committee (Jonassen, 1991). This approach acknowledges the subjective nature of knowledge and

the importance of human agency in shaping perceptions and responses to their own reality (Jonassen, 1991). Informed by the constructivist paradigm, my research design was then tailored accordingly.

My thesis is both exploratory and prescriptive. By combining exploration with prescriptive recommendations, this research contributes both theoretical insights and actionable strategies for fostering sustainability in the corporate setting (Ahlemann et al., 2013; DeCarlo, 2018). It adopts an exploratory approach as it investigates the underexplored area of SC internal processes through the lens of social learning theory by uncovering new insights and understandings regarding how SCs operate and promote corporate sustainability within organizations (DeCarlo, 2018). The objective is to gain a deeper understanding of the dynamics at play within these committees. On the other hand, through prescriptive lens, the study also attempts to identify potential barriers to social learning within the SC context and suggesting ways to overcome them (Ahlemann et al., 2013). This underlines the study's action-oriented approach that aligns with sustainability science (Miller et al., 2014).

A case study strategy is chosen for my thesis as it allows me to delve into a specific phenomenon that is important to provide context-dependent knowledge (Flyvbjerg, 2006). In other words, it enables me to generate actionable insights and recommendations for the company where this research is conducted, highlighting its action-oriented approach. Analyzing a case study also provides the means to exercise social learning theory as a guidance, which could give insights about its application to capture internal processes within such committees in other corporate settings. The techniques applied in that context might then be transferred and scaled to promote larger sustainability transformation (Lang et al., 2017).

4.1 Case Selection

This case is also interesting because the company could play a crucial role in driving sustainable change in Indonesia's energy sector given their monopolistic position in the electricity market (Maulidia et al., 2019). In consequence, their SC may take the lead in shifting the company's business practices to be more environmentally and socially responsible.

I selected my case study for this thesis based on my professional network. The company where the studied SC belongs to is a company I have been working for. This made it easier for me to take their SC as the focus of my study, but it also posed issues that I address in the Limitations section.

I started by reaching out to my colleague, who is a member of Sustainability Division, to inquire about the existence of such a committee within the company. I also asked for some preliminary materials to assess whether the company's SC aligns with my research. Since it is a management-level SC, then the committee met my criterion. As discussed earlier, studying a management-level SC offers a new insight because the literature is dominated by the board-level SC (Alcaide-Ruiz et al., 2022), and of the fact that the management-level SC serves as frontliners in implementing corporate sustainability initiatives (IFC, 2021). Following this, I contacted the company formally requesting a letter of permission. This gave me access to the ESG and Decarbonization weekly meetings in which I conducted the observations, and allowed me to approach the meeting participants personally to have a virtual interview session through Zoom Meeting platform.

4.2 Data Collection

To answer the three sub-research questions, I chose semi-structured interviews and observations as my research methods which were informed by social learning theory as defined by Reed et al. (2010) and elaborated by Medema et al. (2014). Table 1 illustrates the corresponding methods for each sub-research question.

Table 1. Overview of data collection methods and indicators.

No.	Sub-research questions	Methods	Indicators
1	Does the committee practice social learning and if so, how?	Semi-structured interview (online) Observation (online)	What constitutes social learning according to Reed et al. (2010): A change in understanding Beyond the individual Through social interaction
2	Does the committee practice social learning loops?	Observation (online)	Single-loop learning Double-loop learning Triple-loop learning (Medema et al., 2014)
3	What are the key barriers to social learning within the committee and how can they be overcome?	Semi-structured interview (online)	Framework analysis

4.2.1 Interviews

The interview method was chosen to answer Sub RQ1 and Sub RQ3 as it enabled me to gather relevant information about interviewees’ perceptions on the issues I raised (Gray, 2004), such as cognitive changes and dynamics within the committee. The interviewees were selected through purposive sampling. Since the SC consists of nine workstreams, of which eight participate in the ESG meeting and two sub-workstreams in the Decarbonization meeting, a total of 10 interviewees from different divisions were selected as representatives of each of these workstreams and sub-

workstreams (see Appendix 3). This selection ensures that each workstream's perspective is adequately represented. The aim is to obtain an adequate level of diversity in the final sample by including interviewees who have different key characteristics (Bryman et al., 2022). In this case, their characteristics are marked with their respective membership in each workstream.

I personally contacted the interview candidates, which are mostly middle level managers, after observing the ESG and Decarbonization meetings. The interviews were held between February 23-March 17 with every session lasting for around 20-35 minutes. All interviews were conducted online via Zoom and in Indonesian language which is their mother tongue. Every interviewee's agreement was obtained before the interview was taped and subsequently transcribed. It was a semi-structured interview which allowed room for flexibility in terms of asking follow-up questions (Roulston & Choi, 2018). In other words, all respondents were asked the same set of primary questions, with the exception of a few follow-up questions. These primary questions were mainly formulated according to the definition of social learning proposed by Reed et al. (2010) (see Appendix 1).

4.2.2 Observations

I chose observations to help validate interview data concerning social interactions in Sub RQ1. This method allowed me to see beyond individuals' self-perceptions and opinions regarding their own actions (Gray, 2004). Observation was also used to answer Sub RQ2 as it allowed me to capture learning loops practiced in the observed meetings. The utilization of structured observation enables the collection of data as they occur (Gray, 2004) (see Appendix 2). The observations were conducted on ESG and Decarbonization meetings and I chose not to take the Sustainability War Room and Investment War Room meetings as my research object due to the fact that both meetings do not constitute as an internal process of the SC. For each ESG and Decarbonization meeting, I did four observations so I could observe the whole cycle in a month. The observations for ESG meeting started from February 21 to March 13, while observations for Decarbonization meeting took place from February 20 to April 3 due to cancelled meetings. Decarbonization meeting was held every Tuesday for about 15-60 minutes, while ESG meeting on every Wednesday for about 1-2 hours. All meetings were fully online, thereby I conducted the observations by joining on Zoom. I took notes throughout every meeting in my observation journal. In addition, I recorded and rewatched every meeting to get a better analysis after live observations were completed. In regard to Sub RQ1, since this method lacks capacity to observe cognitive changes relating to social learning's first and second elements (Ernst, 2019a), I limited my observation to only the third element of social learning. Therefore, indicators for the observations had been developed to describe the social interactions

taking place within the committee (Reed et al., 2010), and were also based on the definitions of learning loops proposed by Medema et al. (2014) to answer Sub RQ2.

4.3 Data Analysis

In order to analyze the data obtained from interviews and observations, a framework analysis was carried out. This approach enabled me to construct a framework upon insights pertaining to social learning theory in the literature. Ritchie & Spencer (2024) outline the process of conducting framework analysis as comprising five stages: familiarisation, thematic framework construction, indexing, charting, and interpretation. My objective during the familiarisation phase was to enhance my understanding of the data. Following this step, themes emerged from the data, which were then systematically organized into a thematic framework aligned with the key concepts of social learning theory relevant to my research questions (see Appendix 2). Afterwards, during the indexing stage, I read the data again more carefully and ascribed each theme to the corresponding data. In the fourth phase, the data was processed into a set of charts to get them organized and to identify patterns, thus enhancing the reliability of the analysis. In the final step of the process, I drew conclusions from these patterns. Overall, the whole process was iterative to allow the integration of themes that were not identified previously. Framework analysis offers a systematic and disciplined technique of data analysis while also allowing for the emergence of new insights from the data (Ritchie & Spencer, 2024).

4.4 Limitations

It is important to acknowledge certain limitations that stem from my positionality as a researcher and an employee of the organization being studied. First and foremost, my affiliation with the company might unintentionally introduce bias into my research. This potential bias might influence how I perceived things and how I interpreted the data despite the fact that I have never worked for such a committee or team in the past, and I did not know the majority of the SC members personally. However, there was a possibility that the interviewees were only willing to take part in the research because they realized my identity when I approached them. I introduced myself to them as an employee on educational leave conducting research for thesis purposes, as it was also written on the permission letter that I gave them as proof that this research had obtained permission from the company. Additionally, my dual role as both a researcher and an employee of the company might pose challenges in maintaining objectivity throughout the research process, particularly when analyzing data or drawing conclusions that could have professional repercussions on me or my workplace. Accordingly, based on this reflexivity, I strive to mitigate the bias and partiality through

rigorous data collection methods and data analysis to enhance the credibility and validity of my findings.

Aside from my positionality, there are several other limitations to this research. Firstly, the second element of social learning, which is "beyond the individual", is not possible to be objectively assessed by chosen data collection methods. Rather, to assess this element, the interview question was designed to ask the selected interviewees to share their perceptions on whether other members of the SC increase their understandings due to the processes within the committee.

Secondly, during the period of the observations, it was discovered that certain SC members had held a number of additional meetings in addition to the ESG and Decarbonization meetings. Although it was possible that social learning might take place there, those extra meetings were outside the scope of my research. Other than that, observations were only conducted four times for each ESG and Decarbonization meeting, thereby unable to capture entirely their proceedings over time. In regard to answering Sub RQ1, observation method was used solely to gain data pertaining to the third element of social learning. It would help verify responses from the interviews regarding the "social interactions", while this approach would not be able to observe the other elements of social learning which relate to cognitive changes (Ernst, 2019a).

Thirdly, at the beginning, I was planning to also include document analysis into my methods to better validate my data, but I found out later that the ESG and Decarbonization meetings did not have meeting minutes as I assumed. Therefore, I adjusted my approach to relying solely on observation and interview methods. While acknowledging that the observation and interview data might reflect the specific contexts of ESG or Decarbonization meetings, it is important to recognize the broader context, namely that both meetings are integral parts of the SC. Thus, while nuanced to these respective areas, the data still hold relevance and applicability across the committee's internal processes.

4.5 Ethical Considerations

This study prioritizes the confidentiality of all participants involved in the data collection process. Before conducting the research, I applied for an approval from the company to make a case study on their SC for my thesis. All interviews were voluntary, and video and audio recordings were done with the interviewees' approval. They were also informed of the research's objective before each interview. At the start of each session, verbal consent was requested from them regarding the usage of information they provided. To maintain confidentiality, the identities of interviewees and

participants attending the ESG and Decarbonization meetings stay anonymous. Additionally, ESG and Decarbonization meetings were recorded after gaining permission from the company and the individual responsible for facilitating the meeting.

5 Findings

5.1 Social Learning Elements within the Committee

In this part, I answer my first sub RQ “Does the committee practice social learning and if so, how?” by analyzing the interview and observation data from Decarbonization and ESG meetings. Interviews were focused on the three elements of social learning proposed by Reed et al. (2010), namely (1) a change in understanding, (2) which happens beyond the individual level, and through (3) social interactions. Observations were performed to help validate the latter. As a matter of fact, Interviewees number 1, 3 & 10 (later identified as I1, I3, I10 as in Appendix 3) indicated that Decarbonization and ESG teams were formed and started their proceedings prior to the decree of the SC, therefore it is important to note that the processes discussed below encompass the period starting from January 2023.

A change in understanding

All interviewees perceive that they have gained new knowledge individually due to their involvement in the committee in terms of the company’s new vision and initiatives to achieve that. They all indicated that they have become aware of the new business orientation and why their respective contributions matter. With the company shifting towards practices that comply with corporate sustainability principles, they understand that they are required to change, modify, or integrate some initiatives into their own business processes (I1, I2, I3, I5, I6, I7, I8, I9, I10).

“(Because of the committee) all involved divisions can recognize the objectives or strategic direction of the top management. Then, these divisions can contribute to achieving the common objectives. So, all (ESG) members are expected to have a shared overview of the company’s strategic direction and initiatives that must be implemented to achieve the objective.” - Interviewee 5

Those interviewees mentioned that the initiatives relate to several international and national standards which concern the ideal application of corporate sustainability practices. By learning these approaches, they stated that they are able to identify gaps in their existing frameworks, thus providing them with the necessary insights to enhance their sustainability efforts and align more

closely with global best practices. In consequence, the SC allows them to expand on their areas of expertise as they learn about the actions that must be taken to make contributions that could help the company perform better in terms of corporate sustainability (I7, I9, I10).

Beyond the individual

Every participant in the interview acknowledged that the processes within the SC have resulted in a shared understanding among the members. Nonetheless, this collective understanding is limited to the company's new vision and basic framework concerning corporate sustainability as they are concerned with divisional boundaries (I2, I3, I4, I5, I6, I7, I9, I10). Interviewees indicated that they now have collective vision because of the SC processes (I5, I7, I9, I10). Nevertheless, few initiatives still require them to work in collaboration (I2, I3, I5, I9), therefore the BPOs involved might have the same level of knowledge on these shared responsibilities.

"... you could say this (the SC dynamics) is actually more towards (developing) specializations. In general, they (ESG members) already know about the overall ESG framework, including the (ESG risk) rating, but (their collective understanding is) only to that extent." - Interviewee 10

"... the capacity building and workshops conducted in the initial phase invited all (ESG) members ... it led to collective awareness (among ESG members), (and now) they have a shared objective." - Interviewee 9

Although the processes within the SC do not lead the members to understand issues beyond their specializations, interviewees remain aware of the significance of having a platform like the SC to mitigate silo mentality (I4, I5, I6, I7, I8, I10) and perform collective action (all interviewees). For instance, Interviewee 10 claimed that their collective action has resulted in positive impacts as the company obtained improved ESG score from Sustainalytics. However, this does not mean that all involved BPOs have the same level of commitment to achieve the SC's objectives (I3, I4, I6, I8, I9, I10). According to the interviewees, some members still perceive the initiatives from the SC to be additional and a burden to their main responsibilities (I4, I6, I9, I10).

Learning through social interaction

This part discusses the types of social interactions through which learning occurs. Based on the interview data, the SC members associate their biggest learning curve with the initial meetings after ESG and Decarbonization teams established. As the interactions evolve, they now hold weekly meetings, which is where I conducted my observations.

- Initial Meetings

The first meetings refer to the meetings between the SC members and hired consultants (I1, I2, I3, I6, I8, I10). As indicated by the interviewees, the consultants were assigned to identify several gaps in the company's corporate sustainability practices following criteria in international standards. Subsequently, they informed the results to the SC members. In the meetings, the SC members then learned some activities that needed to be integrated into their existing duties. Given the fact that Decarbonization and ESG teams were established in January 2023, I assume the initial meetings took place shortly after that. Following these initial meetings, the initiatives are carried out and regularly monitored by the Sustainability Division as the SC coordinator at ESG and Decarbonization weekly meetings.

"In the initial phase, we were hiring consultants. They gave us directions about how the (ESG) standards will work which will be monitored periodically. Then, every business process owner was assigned (an) initiative(s)." - Interviewee 6

- Weekly Meetings

When it comes to weekly meetings, Decarbonization and ESG have different dynamics. The SC coordinators from the Sustainability Division act as meeting facilitators for both sessions, although being conducted by different people.

In Decarbonization weekly meetings, I observed that social interaction is limited to an interaction between an individual participant and the meeting facilitator. The meeting serves as a mechanism for the SC coordinator to check in with the BPOs on their progress in implementing the initiatives assigned to them and challenges they face. Because each BPO's initiative implementation sequence varies, some are able to submit their progress at every weekly meeting, while others might only attend once a month since they have no progress to share per week as indicated in the interview data (I1, I2). According to the interviewees, the purpose of the meeting is to compile progress, so that the BoD can later monitor and give feedback accordingly in another meeting, namely Sustainability War Room (SWR). Following my observations, Decarbonization meetings are conducted in a way where BPO representatives come, report, and leave. Participants are allowed to leave the meeting when they are done. Their presence is not retained until all participants finish their report, meaning that the members are not expected to listen to what others have to say and engage in topics outside their responsibilities. Consequently, there were no diverse perspectives being shared in the discussions. The attendance level was also low in practically every meeting. In conclusion, I

learned that these weekly meetings do not appear to facilitate the continuous learning process for the meeting participants.

In comparison to Decarbonization, I observed that ESG meetings exhibited more active discussions. In spite of this, during my observations, I noticed that they still rely on linear knowledge transfer to improve their knowledge. The meetings were characterized with the SC coordinator frequently disseminating information to the meeting participants. This includes information from external sources as the SC coordinator regularly receives feedback regarding their gaps in the ESG framework implementation. As a result, ESG weekly meetings display characteristics that facilitate continuous social learning, building up on the knowledge gained from the initial meetings. In the weekly meetings, as I observed, most discussions only engaged each BPO and the SC coordinator, and there were very few discussions where different actors exchanged ideas and arguments. Only the first and second observed ESG meetings featured such dialogue, as demonstrated in Table 2. Following the interview data, this is probably due to the fact that each member has their own specializations, making them hesitant to engage in areas outside their expertise (I2, I3, I4, I5, I6, I7, I9, I10).

"Because I only manage one initiative ... if there are discussions (outside my scope) I don't dare comment on them, I would typically listen." - Interviewee 2

In my observations, the ESG meetings were designed to be thematic, therefore only relevant members were invited. Even though made specific, the attendance level was moderate. I also observed that the meeting proceedings vary, including sharing new information, monitoring progress, discussions on frameworks, material preview before it is conveyed to the BoD in SWR, reflecting on feedback provided by external sources, and even presentations from consultants.

5.2 Social Learning Loops Exercised by the Committee

In this part, I address my second sub RQ "Does the committee practice social learning loops?" through the observation data. Observation method was conducted to investigate how the SC deals with the decision-making via the lens of multi-loop social learning (Medema et al., 2014). In all observed meetings, single-loop learning happened more frequently than double-loop learning, while there was no triple-loop learning taking place as shown in Table 2. Learning loops were evident in every observed ESG meeting, however it was only observed once in Decarbonization meetings. Interestingly, most learning loops in the SC were seen to be inspired by information or feedback from external sources, such as consultants, auditors, and the BoD.

As I did my observations, I noticed a distinction between collective and individual reflection. I saw that there were significantly more reflections performed individually than collectively as the SC members practiced the learning loops. Collective reflection happens when various members participate in discussions to process new information from external sources or gained from their experiences. Individual reflection takes place when a person or some people from the same division reflect on their own practices to improve them or on behalf of the entire team, and then share the results with others.

For Decarbonization, learning loops were rarely practiced by the meeting participants. Among the four observed meetings, there was only one meeting where a participant conducted double-loop learning. However, it was only performed individually by the relevant BPO as he reflected on the initiative assigned to his division. As shown by case number 1 in Table 2, the participant requested to change the target parameter for electric vehicle charging stations. He mentioned that the change in routines for this initiative had been attempted but might not result in the expected outcome, hence the framework needed to be changed. Other than that, there were no other learning loops exercised in Decarbonization during my observations. In a couple of meetings, however, several participants reported that they faced challenges in implementing their initiatives, then these reports were documented by the SC coordinator. Nonetheless, these opportunities did not lead them to either individually or collectively reflect and practice learning loops.

In ESG meetings, both collective and individual reflections leading to learning loops were observed. For instance, in case number 2 and 3 of Table 2, the collective reflection took place when the facilitator brought in new information to the meeting participants. He elaborated on feedback from an external source saying that they lack budget information in their ESG reporting. They then collectively created a mechanism to collect the data. This indicates single-loop learning as they try to fill the gap regarding budget information by making an adjustment in their routines. Then, other participants joined the discussion saying that they all need to reflect deeper on all the data presented in their current ESG reporting since they have experienced difficulty integrating consistent data and never conducted alignment of scope and data consistency for the ESG reporting. This, on the other hand, is an indication of double-loop learning. The individual reflections also occurred in the observed ESG meetings, which were mostly performed by the SC coordinator and subsequently disseminated to the meeting participants. For example, the SC coordinator obtained numerous feedback from a government internal auditor and reflected on the necessary measures to address them. In the third observed ESG meeting, they introduced these recommended initiatives and assigned them to relevant BPOs.

Table 2. Cases of single- and double-loop learning during the observations.

No.	Meeting	Learning Loop	Performed	Source of stimulus	Context
1	Decarbonization 2nd observed meeting	Double-loop learning	Individually by relevant BPO	Own experience	Participant requested to change the target parameter for electric vehicle charging stations. He mentioned that the change in routines (building more charging stations) for this initiative had been attempted but might not result in the expected outcome, hence the framework needed to be changed.
2	ESG 1st observed meeting	Single-loop learning	Collectively	Consultant	The SC coordinator elaborated on feedback from an external source saying that they lack budget information in their ESG reporting. They then collectively created a mechanism to collect the data. They try to fill this gap by making an adjustment in their routines.
3		Double-loop learning	Collectively	Own experience	There is a need to reflect deeper on all data presented in ESG reporting because there is a difficulty in integrating consistent data, and the fact they have never conducted alignment of scope and data consistency for the ESG reporting.
4	ESG 2nd observed meeting	Single-loop learning	Individually by relevant BPO	Hired assessor	Environmental Management System (EMS) did not obtain satisfying result due to unclear scope even though current routines (EMS certifications) have been conducted, therefore needing knowledge from external sources regarding the correct routines.
5		Single-loop learning	Individually by the SC coordinator	Board of Directors	The BoD urged the need to develop ESG risk rating (scoring) for each division/unit/subsidiary to monitor their respective performance. The SC coordinator came up with maturity level matrix.
6		Double-loop learning	Collectively	Board of Directors	The BoD urged the need to formulate frameworks that monitor a sustainable supply chain for their own operations and their suppliers'. Then participants collectively discussed about aspects that need to be integrated.
7		Double-loop learning	Individually by relevant BPO	Board of Directors	The BoD urged the need to align all environmental standards within the company and its subsidiaries. Participant then reflected that this request would require the shareholders to rectify some company's regulations since subsidiaries cannot be forced to enact the same standards.

8	ESG 2nd observed meeting	Double-loop learning (3 times)	Individually by the SC coordinator	Board of Directors	There are 3 other requests from the BoD which are directly related to double-loop learning. These requests were then translated by the SC coordinator into a to-do-list.
9	ESG 3rd observed meeting	Single-loop learning (17 times)	Individually by the SC coordinator	Government Internal Auditor	There are 17 recommendations from the auditor that are directly related to incremental changes which concern the actual and anticipated results. The SC coordinator translated these recommendations into tasks assigned to many BPOs.
10		Double-loop learning (6 times)	Individually by the SC coordinator	Government Internal Auditor	There are 6 recommendations from the auditor that are directly related to the reframing of framework. The SC coordinator translated these recommendations into tasks assigned to many BPOs.
11		Single-loop learning	Individually by the SC coordinator	Consultant	The SC coordinator brought in information about the urgency of certification of management systems (e.g., ISO) to improve the company's score on ESG Risk Rating. This task was then assigned to the relevant BPO.
12	ESG 4th observed meeting	Single-loop learning	Individually by the SC coordinator	Consultant	Reiteration about the urgency of certification of management systems (e.g., ISO) for the company's ESG Risk Rating (ESG Score). This task was then assigned to the relevant BPO.

5.3 Barriers and Potential Solutions to Improve Social Learning Quality

In this section, I deal with my third sub RQ “What are the key barriers to social learning within the committee and how can they be overcome?”. Since the focus of this research is to identify barriers and potential solutions in the whole context of SC, rather than explicitly within the boundaries of ESG and Decarbonization respectively, this section presents the findings from the interviews as suggestions for improving the quality of entire SC processes.

Existing Barriers

The first obstacle is limited external knowledge. Interviewees 1 & 3 indicated a lack of understanding in ideally adopting comprehensive corporate sustainability initiatives as they are used to business-as-usual activities. This means that they find it difficult to independently identify the existing practices that require adjustment to meet international corporate sustainability standards. In addition, the interviewees stated that they do not possess adequate knowledge of how those standards work and how other companies adopt them (I1, I3, I8, I10).

"We actually still have a problem with the alignment (with international standards). (For example), we tried to analyze the (feedback) report from Sustainalytics (regarding our current routines and frameworks) ... (it turns out) there are other factors (not yet included in our framework) that must be considered." - Interviewee 3

While this problem is relevant for both ESG and Decarbonization meetings, based on my assessment, the latter is a platform that needs more attention since their weekly meetings lack an outlet to incorporate external knowledge into the organization. I observed that Decarbonization meeting participants do not receive any feedback on their current practices during their weekly meetings. Therefore, these different dynamics between Decarbonization and ESG meetings reveal another issue, which I assume to be internal knowledge management within the committee. Interviewee 5, for example, mentioned that they were not aware of the processes taking place in Decarbonization meeting.

Secondly, the barrier is related to unequal levels of commitment among members. Although some members are highly committed to the SC and actively participate in the meetings (I3, I5), this level of engagement does not appear to be the case for others (I3, I4, I6, I9, I10). The interviewees said that those who do not share the same level of commitment tend to be passive or even absent from meetings. One factor that was frequently cited in the interviews is unaligned activities with the main responsibilities of individual BPOs or divisions (I4, I6, I9, I10). Certain members consider the initiatives from the SC to be irrelevant, if not burdensome, in comparison to their existing duties. On top of that, they mentioned insufficient commitment shown from the senior level managers (I4, I6), resulting in the prioritisation of other things above the SC's recommended initiatives to each BPO. Aside from that, according to my observations and also data from the interviews (I3, I5, I6), the level of attendance from participants in every meeting is insufficient. In my analysis, this could be related to the weak commitment, but also because the meeting is held too frequently and redundant (I3, I5, I6), thus losing its significance. In fact, other than weekly meetings they are also invited to attend the SWR meetings which take place biweekly (PT PLN Persero, 2023b).

"To encourage engagement from all members and make them committed to the ESG (practices), it takes time ... maybe those already committed are still the same personnel, while the (participation of) others are merely ceremonial." - Interviewee 6

"Maybe it is necessary to firstly measure the engagement of top leaders from each related division, whether the leaders have good awareness. Because employees in the lower level usually follow their superiors." - Interviewee 4

Finally, there is a concern about personnel changes brought up by Interviewee 10. As they leave the committee, they might not be able to pass on the knowledge and especially commitment gained from the SC proceedings to their replacements. It refers to the insights from Interviewee 10 that commitment and knowledge retention in the SC is strongly reliant on individuals and that employee mobility within the company is quite high. An SC member who attends the meetings is typically the sole representative from their division or BPO (I3, I5). Losing them could mean a significant challenge for the SC coordinator as they need to get the new personnel to catch up with the SC's initiatives (I10).

"The mobility of (the company's) employees is quite high, so those who are already engaged could be moved to another field (division/unit/subsidiary). Well, this is quite a challenge (for the committee since) right now we are still at the stage where ESG implementation really depends on the person, not yet the system." - Interviewee 10

Potential Solutions

For the first barrier, the interviewees implied that knowledge from external sources is therefore needed (I1, I3, I8, I10). Since the meeting processes within ESG and Decarbonization differ significantly, I argue that there is a need to set up the entire SC in a particular way to ensure that internal knowledge can be better managed and the members can learn from one another. In that sense, Decarbonization may copy mechanisms from ESG meetings where the SC coordinators regularly check in with external parties regarding aspects of their framework that need improvements. Nonetheless, the imperative to seek further insights from external sources is not exclusive to Decarbonization (I1), it also emerges from some interviewees participating in the ESG meeting (I3, I8, I10). This indicates that limited external knowledge is a shared concern across both sessions.

The second issue primarily revolves around measures to enhance the SC members' commitment, thus their engagement. The interviewees suggest personal meetings between the SC coordinator and each BPO whose representatives to the SC appear to have relatively weak commitment (I3, I4, I6). In my opinion, the necessity of holding personal meetings implies the need to improve social interactions—the third element of social learning—within the SC. Such approach is necessary to ensure an in-depth discussion of the company's new business orientation and how it relates to them, as well as a deep dive into their activities that could be aligned with the corporate sustainability agenda (I3, I4, I6).

"Maybe there should be personal meetings at times. I mean, per (ESG) stream, an in-depth discussion is needed ... therefore, we can talk about the impacts (of such initiatives), the issues (behind them), or whatever." - Interviewee 6

Having personal meetings enable BPOs to have more time to negotiate the recommended initiatives (I8) and to cultivate awareness and commitment to the SC (I3, I4, I6). This strategy could also be aimed at senior level managers, so that they could better prioritize the initiatives from the SC internally. Commitment from top-level managers has proven to be effective in better aligning the sustainability initiatives with BPOs' daily routines (I5, I6, I10). In actual, these senior level managers are also part the SC (PT PLN Persero, 2023a), however they are considered to play minimum roles during the internal SC processes (I4, I6). Besides, the imperative to improve the effectiveness of social interactions is also demonstrated by suggestions to lower the frequency of meetings to address redundancies and accommodate members' busy schedules (I3, I5). I suggest this could involve consolidating meetings, reevaluating the necessity of certain sessions, and optimizing the agenda to focus on key priorities.

To overcome the issue of commitment and knowledge retention due to personnel changes, Interviewees 7 & 10 suggested that the incorporation of corporate sustainability principles into daily operations is necessary. Embedding them within systems could at least sustain the commitment of whoever is responsible for the sustainability initiatives in the affected division (I10). Even if it might take some time to catch up with the knowledge, they could be incentivized to do so since the duties become part of their performance metrics or incentive structures (I10). On a side note, because this suggestion is able to impose commitment among members, I propose that it could simultaneously address the second barrier to social learning within the SC. Consequently, the SC initiatives would no longer be regarded as additional and irrelevant tasks by some members (I4, I6, I9, I10).

"Well, the hope is that, in the future, we will not ask (related BPOs) for things like 'please have a program related to sustainability', but that sustainability programs will have become an integrated part of their annual programs." - Interviewee 10

Another potential solution is by establishing a small circle in each BPO, yet I assume that it may require high commitment in the first place. Interviewees 3 & 5 stated that they usually come with their staff, with the intention to allow them to accumulate the same knowledge from the SC processes. In my understanding, this could ensure the specializations and commitment level that have been built on them by the SC processes would be preserved within their circle even if there is a turnover.

"Usually I ask my staff to also join the meetings. At least, the information (from the meetings) is not only understood by me, but also by them. So far, if, for example, I am unable to attend a meeting, I ask them to report back (about the meeting) to me." - Interviewee 5

6 Discussion

The discussion in this chapter is organized according to the order of sub research questions, with the overarching RQ addressed last. I conclude with a suggestion for further research on social learning in the context of corporate sustainability.

6.1 Interpretation of Findings

Sub RQ1: Does the committee practice social learning and if so, how?

It is evident that social learning takes place within the studied committee. I conclude that there is “a change in understanding” that takes place “beyond the individual” through “social interactions” (Reed et al., 2010). However, from the interview and observation data, I learned that the collective cognitive change happens via information transmission or linear knowledge transfer instead of deliberation, which are two modes of social interactions in social learning (Reed et al., 2010). The acquisition of knowledge by straightforward means is more prominent in the SC than the process of dialogue and argument exchange, which are associated with definitions of information transmission and deliberation respectively (Reed et al., 2010). As an interaction type in social learning, information transmission contradicts what Castillo (2022) anticipates, as she advocates for social learning in corporate settings through deliberative communication. Andrade et al. (2023) further elaborate on deliberation as a process where individuals engage in a thoughtful and value-driven exchange of various viewpoints. This process involves carefully considering alternative solutions while taking into account points of agreement, disagreement, and diversity (Andrade et al., 2023). Deliberation is found to be a major feature of social learning in many sustainability contexts, including urban disaster risk management (Zhang et al., 2020), water governance (Pahl-Wostl, 2015; Wehn et al., 2018) or natural resource management in general (Cundill & Rodela, 2012). It is possible that deliberative communication in those contexts could occur because of the involvement of multiple stakeholders (Cundill & Rodela, 2012), rather than gathering diverse individuals from the same organization as demonstrated by the committee.

Sub RQ2: Does the committee practice social learning loops?

The findings show that single-loop and double-loop learnings were practiced by the SC members. While it is important to acknowledge that the need for each learning loop could be contextual (Tosey et al., 2012), the absence of triple-loop learning suggests that the committee is not engaging in a process of organizational transformation or paradigm shift (Medema et al., 2014), indicating a possible constraint in their capacity for transformative change (Pahl-Wostl, 2009). In other words, the committee is not set up for transformation. Given the company's role in the national energy landscape (Maulidia et al., 2019), I argue that transformation is required to drive major sustainability impacts on a broader scale, but it might not be achieved without triple-loop learning being exercised by the committee.

However, with single- and double-loop learning, the SC still demonstrates its capacity to continuously develop by modifying routines and changing the established frameworks—in its context—to achieve better ESG score (Medema et al., 2014; Moynihan, 2005). On the other hand, when practicing learning loops, the SC members typically conduct reflections individually rather than collectively. In the context of social learning, the dominance of individual reflection further demonstrates limited deliberation in the SC processes. Castillo (2022) considers deliberation to be an important factor in determining the quality of decision-making process within companies. It is capable of promoting reflexivity in an attempt to make decision-making intertwined with the learning process (Castillo, 2022).

Sub RQ3: What are the key barriers to social learning within the committee and how can they be overcome?

There are three key barriers that could hinder the successful social learning application in the SC, namely limited external knowledge, weak commitment, and personnel changes. In regard to the potential solution to the first obstacle, Ernst (2019b) agrees that access to information is crucial in determining social learning quality. This includes external technical resources, and without adequate access to them, decision-making processes may be hampered due to limited knowledge (Ernst, 2019b). Subsequently, this relates to the fact that most learning loops in ESG meetings were observed to be initially sparked by information from external sources as shown in Table 2. Given that learning loops in Decarbonization meetings were rarely practiced, I assume that they are in dire need of access to such information. Therefore, I recommend Decarbonization to replicate processes in ESG meetings. This necessity emphasizes the importance of strengthening existing relationships within a network (Ernst, 2019b), which addresses the issue of internal knowledge management. Ernst (2019b) posits that "network building" could improve social learning by maximizing the exchange of

information among individuals who are connected. Additionally, in my interpretation, limited external knowledge is also connected to a lack of triple-loop learning within the committee. I believe that in order for the triple-loop to occur, more perspectives from more stakeholders may be required to provide insights that could lead to profound change. This is because the findings indicate that the company faces challenges in critically evaluating its own established practices, or maybe even values.

Meanwhile, according to the findings, the underlying issue for the second and third barriers is the insufficient level of commitment displayed by some members. Commitment is an important characteristic that influences effective participation processes (Ernst, 2019b). This means that the SC members would take part in the SC more actively when they are committed. For the second barrier, having personal meetings or context-specific deliberative communication as a solution to incite commitment among members aligns with the idea of value deliberation in the literature (Pigmans et al., 2019). Value deliberation refers to a process where participants explore each other's values and interests (Pigmans et al., 2019). Pigmans et al. (2019) suggest that value deliberation has the capacity to change people's prioritisation and enhance their understanding of other people's viewpoints and perceptions.

Nevertheless, I see that the process of value deliberation can be time- and energy-consuming if there are frequent personnel changes, as the SC coordinator needs to inculcate awareness and commitment to the new members. Loss of commitment due to personnel changes affects the capacity of the committee to maintain their collective action continuously (Assuah & Sinclair, 2019). Integrating corporate sustainability principles into daily operations as a solution corresponds to "context" as a factor influencing social learning (Ernst, 2019b). Context refers to the institutional setting that serves as a pre-existing condition shaping the dynamics of social learning within the committee (Ernst, 2019b). Having sustainability principles as the main context of their daily operations could help the SC foster commitment and knowledge retention within each involved division.

6.1.2 The role of social learning in navigating towards corporate sustainability

This section addresses the overarching RQ "In the case of a Sustainability Committee in an Indonesian power company, what is the role of social learning in navigating towards corporate sustainability?". Based on the findings, social learning has several roles, including knowledge building, collective action, and continuous improvement and learning. Regarding the first role, the findings show that through social interactions within the committee, the members engage in a process of learning both collectively and individually, aligning with the social learning concept

defined by Reed et al. (2010). Nonetheless, instead of knowledge co-creation (Pahl-Wostl, 2015), the social learning is distinguished by linear transfer of knowledge (Reed et al., 2010). In that sense, each member internalizes their assignments and the importance of their contributions to the company's new orientation, thereby they are driven to focus on common interests and objectives, resulting in the formation of collective vision that is important for joint action (Allasiw et al., 2023).

Collective action as the result of social learning in the committee is consistent with the anticipated outcome established by the literature (Assuah & Sinclair, 2019). Assuah & Sinclair (2019) define collective action as activities undertaken by a group of people with the intention of attaining shared objectives. Therefore, I interpret that it does not necessarily imply that all SC members work together on all initiatives, rather, it implies that they understand and fulfill their own roles in order to accomplish those objectives.

With the help of external knowledge, social learning also enables the SC to continuously improve their performance and learn from their outcomes. By practicing single- and double-loop learning in the decision-making process, the SC members are able to integrate necessary changes to enhance their practices and deliver better outcomes (Medema et al., 2014; Moynihan, 2005). However, without triple-loop learning, the committee shows their limitations in bringing about transformation (Medema et al., 2014; Pahl-Wostl, 2009). I contend that transformative ideas to create substantial changes in Indonesia's energy sector might not come from the SC unless a different approach is taken within their processes.

6.2 Future Research

In light of limited deliberation within the SC, which differs from the findings in other sustainability contexts (Cundill & Rodela, 2012; Juwel & Ahsan, 2019; Pahl-Wostl, 2015; Zhang et al., 2020), there arises an interesting opportunity to explore the suitability of deliberation as a mode of social learning interaction within the realm of corporate sustainability. Unlike contexts involving various stakeholders, where deliberative processes are prevalent (Cundill & Rodela, 2012; Juwel & Ahsan, 2019; Pahl-Wostl, 2015; Zhang et al., 2020), the internal dynamics of the SC were found to have prioritized information transmission over active dialogue and debate to improve the understanding of involved participants. Future research could thus investigate to what extent deliberation fits corporate sustainability context where individual specializations prevail, which seems to discourage employees from being involved in issues outside of their responsibilities. This could further advance the discourse of social learning, which is currently underrepresented in corporate sustainability

literature, by shifting away from the frequent emphasis on organizational learning (Fortis et al., 2018).

7 Conclusion

Sustainability committees have garnered significant attention in recent academic discourse. Studies suggest that these committees possess the capacity to help corporations avoid environmental and social damage that they may inflict in pursuit of profit (Burke et al., 2019; García-Sánchez et al., 2019; Hussain et al., 2018). Nonetheless, several research gaps exist in the literature, such as a lack of focus on internal processes, theoretical approaches (Alcaide-Ruiz et al., 2022), and management-level SCs. This study investigates the internal processes of the studied management-level SC through the lens of social learning theory. Adopting an exploratory approach, the research provides a unique contribution to the existing literature by demonstrating how internal dynamics affect knowledge acquisition and the decision-making process. While on the prescriptive side, this research proposes suggestions to address key barriers to social learning within the SC.

The findings demonstrate that social learning is evident on the committee. It is characterized by collective understanding of the company's new orientation that occurs through information transmission. Because of this collective vision, they take collective action in the form of corporate sustainability initiatives. It shows that in other contexts of SCs, social learning may have the capacity to facilitate SC members to acquire new knowledge pertinent to the objectives of SCs, which then leads to collective vision and collective action. However, the SC's processes fail to enhance the members' comprehension of matters that extend beyond their respective areas of expertise. This condition brings about limited deliberative interactions in their meetings, which is in contrast to the type of social learning interaction prevalent in other sustainability studies (Cundill & Rodela, 2012; Juwel & Ahsan, 2019; Pahl-Wostl, 2015; Zhang et al., 2020).

Although lacking capacity for generating a change that is transformational, with single- and double-loop learning practiced by the committee in the decision-making, it is already sufficient for them to continuously improve and adapt their sustainable strategies (Medema et al., 2014; Moynihan, 2005). Nevertheless, to help the company and the country transition into a greener energy landscape, it might be necessary to practice triple-loop learning to generate essential fundamental changes. This could be done by adopting a new approach, such as enlarging their pipeline to external knowledge by involving more stakeholders, enabling them to provide comprehensive feedback and a thorough evaluation of the underlying paradigms of the company's business operations.

Given the potential correlation between social learning quality within SCs and the sustainability outcomes they produce (de Kraker, 2017; Dlouhá et al., 2013; Ernst, 2019b; Garmendia & Stagl, 2010), it is subsequently important to identify key barriers to social learning and measures to address them. For the studied SC, the findings indicate three key obstacles, namely limited external knowledge, weak commitment, and personnel changes. Potential solutions to overcome these identified barriers include increased access to information, context-specific deliberative communication, and the incorporation of corporate sustainability principles into daily operations. By providing recommendations to the company where the case study is conducted, this research demonstrates its action-oriented approach, which characterizes its relevance to sustainability science (Miller et al., 2014). The findings in my study may not be generalizable due to the singular focus on a specific case study. However, the techniques applied to capture internal processes within the SC might provide general insights into the application of social learning as a theoretical approach in other contexts.

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Appendices

Appendix 1. Interview Guide

- Sub RQ1:
 - First of all, I would like to know what is your role? How long you have been working for this company? And since when were you involved in the sustainability committee?
 - In your opinion, what is the purpose of the establishment of sustainability committee?
 - Follow up: What processes lead to the realization of that purpose?
 - To what extent does the committee offer you a fresh perspective or enhance your understanding and knowledge about sustainability challenges that the company faces? Could you give me an example? (*a change in understanding*)
 - Do you perceive that the discussions also led to an improved understanding for other members in the group? Why? (*beyond individual*)
 - What types of discussions you think taking place in the meetings? E.g. hierarchical or deliberative? (*social interaction*)
 - In those meetings, could you describe your level of participation in the discussions? For example, do you actively engage in the discussions, or do you prefer to sit back and listen? Why? (*social interaction*)
 - Do you often engage in discussions about issues that are not related to your department? Why? (*social interaction*)
- Sub RQ3:
 - Do you see that these meetings have an effect on the company's overall sustainability strategies? Why?
 - In your opinion, do you find that there are obstacles to having constructive SC meetings? What are they?
 - What changes would you need in order for these meetings to be more constructive?
 - Is there anything else you would like to share about the committee that we haven't already covered?

Indonesian version:

- Sub RQ1:
 - Pertama-tama, saya ingin tahu apa posisi Anda dan dari divisi apa? Sudah berapa lama Anda bekerja di perusahaan ini? Dan sejak kapan Anda terlibat dalam tim ESG/Decarbonization?
 - Menurut pendapat Anda, apa tujuan dari pembentukan tim ini atau Komite Sustainability?
 - Proses apa yang terjadi sehingga tujuan tersebut bisa dicapai?
 - Sejauh mana ESG/Decarbonization atau Komite Sustainability secara keseluruhan memberikan Anda perspektif baru atau meningkatkan pemahaman dan pengetahuan Anda tentang tantangan sustainability yang dihadapi perusahaan? Bisakah Anda memberi sebuah contoh?
 - Apakah menurut Anda diskusi-diskusi pada meeting tersebut juga meningkatkan level pemahaman/pengetahuan bagi anggota-anggota lainnya? Mengapa?
 - Menurut Anda, jenis diskusi seperti apa yang terjadi dalam setiap meeting? Misalnya, hirarkis atau partisipatif?
 - Dalam rapat-rapat tersebut, dapatkah Anda menjelaskan tingkat partisipasi Anda dalam diskusi? Contohnya, apakah Anda aktif terlibat dalam diskusi atau lebih memilih menjadi pendengar? Mengapa?
 - Apakah Anda sering ikut berdiskusi tentang isu-isu yang tidak berhubungan dengan divisi/departemen Anda? Mengapa?
- Sub RQ3:
 - Apakah Anda melihat bahwa rapat-rapat ini berdampak pada strategi sustainability perusahaan secara keseluruhan? Mengapa?
 - Menurut Anda, apakah Anda menemukan adanya kendala-kendala yang bisa menghambat rapat-rapat ESG/Decarbonization agar bersifat konstruktif? Apa saja?
 - Perubahan apa saja yang Anda inginkan terjadi agar rapat-rapat itu menjadi lebih konstruktif?
 - Apakah ada hal lain yang ingin Anda sampaikan tentang ESG/Decarbonization (Komite Sustainability) yang belum dibahas?

Appendix 2. Generated Thematic Framework

Achange in understanding	Beyond individual	Social interactions	
Understanding gaps (based on existing frameworks)	Indicating collective understanding/vision	Participation/presence level, including: high/moderate/poor	Attention to other issues outside respective divisions, inc:
Understanding pressure from stakeholders	Mentioning the understanding beyond silo/division	Indicating information transmission	Only when it overlaps/is assigned to them
Understanding company's orientation/goals with ESG	Collective/collaborative action/attitudes	Indicating deliberation	Yes, when they have knowledge about it
Achange in commitment	Awareness of interconnectedness	Reliance on facilitation	Only listening
	Sense of urgency/commitment is growing among members	There are other meetings/proceedings outside the committee regular meetings	Concerned with boundaries/specializations
	Understanding the overarching framework, then siloed according to specializations	Bringing in knowledge from outside sources	Yes, because I have to
	Having different degrees of understanding about a topic		No

Single-loop learning	Double-loop learning	Triple-loop learning
Do they discuss or make changes that relate to routines?	Do they discuss about or change their frameworks? Therefore changing routines.	Does "why" question emerge? Or do they question the paradigm and values that form the basis of the established frameworks?
Where the stimulus comes from? Own experience, own knowledge, or information from external sources?	Where the stimulus comes from? Own experience, own knowledge, or information from external sources?	Where the stimulus comes from? Own experience, own knowledge, or information from external sources?
Collective reflection	Collective reflection	Collective reflection
Individual reflection	Individual reflection	Individual reflection

Barriers	Necessary changes
Inadequate knowledge from outside sources	Continuous capacity building
Participation/presence level	There needs personal meetings
Engagement level	There needs in-person meeting where all members invited
Commitment level	Less frequency of the meetings
Losing significance/too frequent	Thematic, but make it not redundant
Challenges of alignment/considered additional works, not integrated as KPI	Make initiatives more aligned with divisions' activities
There is resistance from some members	
Only some members are highly engaged	
Personnel changes	

Appendix 3. Representation of Interviewees

Interviewee	Identification	Workstream/Sub-workstream	Meeting
1	I1	Decarbonization of fossil plants	Decarbonization
2	I2	Green ecosystems	Decarbonization
3	I3	Environmental management	ESG
4	I4	Governance	ESG
5	I5	Communication and publication	ESG
6	I6	Capacity building	ESG
7	I7	Digitalization	ESG
8	I8	Breakthrough monitoring	ESG
9	I9	Financing and risk	ESG
10	I10	Social	ESG