

Martina Kurki

**Toward
engagement
in corporate
sustainability**



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Tiivistelmä

Työntekijöillä on keskeinen rooli yritys vastuun tavoitteiden muuntamisessa konkreettisiksi aloitteiksi ja käytännöiksi. Toistaiseksi on kiinnitetty vähemmän huomiota prosessiin, jossa työntekijät yksilötasolla sitoutuvat yritysten kestävä kehityksen tavoitteisiin ja voivat kehittyä itsenäisiksi kestävyysajattelijoiksi. Väitöskirjani pureutuu tähän ilmiöön kolmen toisiinsa kytkeytyvän esseiden avulla. Essee pohjautuu monikansallisissa teknologiayrityksissä tehtyihin empiirisiin tutkimuksiin ja hyödyntävät analysoinnissa psykologisen omistajuuden teoriaa.

Essee I keskittyy tunnistamaan tekijöitä, jotka vaikuttavat yritys vastuuseen sitoutumiseen monikansallisten yritysten paikallisissa liiketoimintayksiköissä. Tutkimuksessa nousi esiin useita tekijöitä, joilla voi olla sekä yritys vastuun psykologista omistajuutta vahvistavia että heikentäviä vaikutuksia. Essee II tutkii, kuinka controllereiden ammatilliseen rooliin voisi kytkeytyä yritys vastuuta edistäviä elementtejä. Controllereilla itsellään näyttäisi olevan taipumus sulkea yritys vastuun pois työtehtävistään ja nähdä se pikemminkin muiden toimintojen vastuuna. Tuloksista nousee esiin myös controllereiden nykyisin kokemassa ammatillisessa roolissa piirteitä, jotka heikentävät yritys vastuun psykologisen omistajuuden kehittymistä. Tutkimus avaa perusteltuja kehityspolkuja controllereiden roolin vahvistumiseen yritys vastuun edistämisessä. Essee III on tapaustudkimus, jossa yritys vastuuseen sitoutumisen prosessia ja kehittymistä arvioidaan osana kohdeyrityksen kansainvälistä ympäristölaskentaprojektia. Tulokset osoittavat, että yritys vastuuseen liittyvien tehtävien sisällyttäminen työhön stimuloi psykologisen omistajuuden reittejä riippumatta yksilön osaamisen ja sitoutumisen lähtötasosta.

Väitöskirjani tulokset täydentävät tutkimuskirjallisuutta liittyen liiketoiminnan kestävyysmuutokseen ja laskentatoimen rooliin tässä muutoksessa. Psykologisen omistajuuden teoria tarjoaa uuden, prosessuaalista näkökulmaa korostavan otteen ymmärtää yksilöiden sitoutumista yritys vastuun tavoitteisiin. Käytännön tasolla tulokset osoittavat, kuinka esimerkiksi työn suunnittelulla voidaan vaikuttaa työntekijöiden sitoutumiseen ja miten psykologisen omistajuuden reittejä voidaan hyödyntää kestävyysajattelun juurruttamisessa. Tutkimus tarjoaa myös johtamisen keinoja välttää mahdollisia sudenkuoppia yritys vastuuseen tähtäävää organisaatiokulttuuria kehitettäessä. Laskentatoimen ammattilaisten ja opiskelijoiden kestävyysajattelun edistämisessä psykologisen omistajuuden teoria tarjoaa hyvän lähtökohdan kehittämistoimien suunnittelulle.

Avainsanat: Yritys vastuun; työntekijöiden sitoutuminen; monikansallinen yritys; controller; ammatillinen rooli; psykologinen omistajuus; kestävyysajattelu.

Abstract

Employees have a key role in translating the corporate sustainability objectives to concrete initiatives and practices. However, scarce theoretical and conceptual attention has been paid to the process by which employees at the individual level engage in corporate sustainability objectives and become autonomous sustainability thinkers. My dissertation examines this phenomenon through three interlinked essays that are based on empirical studies in a multinational enterprise (MNE) context, and with psychological ownership theory as the focus driver.

Essay I investigates which factors strengthen or hinder the development of psychological ownership of corporate sustainability at the individual level in local business units of MNEs. There are several factors that can have contradictory effects, both strengthening and hindering the routes to psychological ownership of corporate sustainability. Essay II examines how the professional role of management accountants (MAs) could develop to incorporate advancing sustainability. MAs themselves tend to exclude corporate sustainability from their job role; instead, they see it as a subject of other functions. The findings also reveal features connected to the current perceived professional role of MAs that may impede the development of psychological ownership of corporate sustainability. The study reveals justified development paths for strengthening the role of MAs in promoting corporate sustainability. Essay III is a case study that further elaborates the process of individual engagement when an environmental accounting project act as an intervention. The findings show that incorporating sustainability-related tasks into one's work stimulates the routes of psychological ownership of corporate sustainability, irrespective of the individual's initial level of competence and commitment.

My dissertation contributes to the academic discussion related to business sustainability transition and the role of accounting in this change. By utilizing the psychological ownership theory, it introduces a novel processual perspective to explore how individuals may become engaged in enhancing corporate sustainability. On a practical level, the research shows how, for example, job design influences employee engagement and how the routes of psychological ownership can be used to cultivate sustainability thinking. Moreover, it provides management with means to navigate potential pitfalls in building a sustainability-oriented organizational culture. It also gives insights for MA professional organizations and education providers to foster sustainability thinking among MAs.

Keywords: Corporate sustainability; employee engagement; MNE; management accountant; professional role; psychological ownership; sustainability thinking

KIITOKSET

Väitöskirjaprojektini on tullut päätökseen. Maaliin pääseminen on tulos-orientoituneelle persoonalleni tietysti mieluisaa, mutta tämän projektin aikana olen keskittynyt nauttimaan myös itse matkasta – vapaudesta pohtia asioita rauhassa, ilosta oppia uutta, ja riemusta, joka seuraa palasten loksahdusta paikoilleen. Vaikka väitöskirja on yksilösuoritus, se ei todellakaan ole syntynyt ilman tukea, opastusta ja yhteistyötä. Haluan kiittää professori Annukka Jokipiitä väitöskirjapotentiaalin tunnistamisesta. Erityisesti haluan kiittää ohjaajani, professori Marko Järvenpäättä. Kannustit ennakkoluulottomasti minua kulkemaan valitsemiani polkuja, ja polkujen haarautuessa opastit näkemään mitkä valinnat tukevat itse päämäärää, väitöskirjaa. Hyväntuulisuutesi ja positiivinen asenteesi olivat omiaan herättämään tunteen, että kyllä tästä hyvä tulee. Suuren kiitoksen haluan myös jakaa kanssakirjoittajalleni tohtori Merja Lähdesmäelle. Keskellä koronaepidemiaa sain nauttia nauruntäyteisestä työskentelystä raudanlujan tutkijan kanssa. Yhteistyömme oli yksi koko väitöskirjaprosessin antoisimmista jutuista. Haluan kiittää myös professori John Burnsia, professori Marko Kohtamäkeä, professori Laura Albaredaa, apulaisprofessori Anne Quarshiea sekä professori Tobias Hahnia arvokkaista, käsikirjoituksiani kehittäneistä kommentteista. Lämmin kiitos kuuluu väitöskirjani esitarkastajille, professori emerita Aila Virtaselle sekä professori Matias Laineelle, kun soitte aikaanne ja asiantuntemustanne väitöskirjani arvioimiseen.

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Abbreviations

EPD	Environmental Product Declaration
LCA	Life Cycle Assessment
MA	Management Accountant
MNE	Multinational Enterprise
OCB	Organizational Citizenship Behavior
OCBE	Organizational Citizenship Behavior for Environment
SDG	Sustainable Development Goal
TBL	Triple Bottom Line
UN	United Nations

Essays

- I. Kurki, M., & Lähdesmäki, M. (2023). Cultivating sustainability thinkers: Analyzing the routes to psychological ownership in local business units of multinational enterprises (MNEs). *Business & Society*, 62(3), 530–564.
<https://doi.org/10.1177/00076503221088809>. CC BY.
- II. Kurki, M., & Järvenpää, M. (2024). *Finding the Routes to Corporate Sustainability in the Professional Role of Management Accountants* (Manuscript submitted. Revised version accepted as *Engaging Management Accountants in Corporate Sustainability* for *Accounting, Auditing & Accountability Journal*).
- III. Kurki, M. (2024). “*Getting your hands dirty in environmental accounting*” – *Implications for employees’ psychological ownership of corporate sustainability* (Manuscript submitted for publication).

1 INTRODUCTION

“Attempts to reintroduce protection and care for the environment into our thinking and into our ways of doing things leads slowly but inevitably to radical reconsideration of current attitudes, structures, beliefs and *modi operandi*”

(Gray, 1992)

Humanity is crossing the boundaries of the planet and despite widespread awareness of current social and environmental crises, activities promoting sustainable transformation remain modest (Folke et al., 2019; Intergovernmental Panel on Climate Change [IPCC], 2023; Sachs et al., 2021, 2022). Major changes are required to transform the goal of sustainable development from idealistic talk into reality, and a need for corporations to seriously address sustainability has become evident. Corporations are expected to meet the needs of their indirect and direct stakeholders, both current and future (Dyllick & Hockerts, 2002), through actions aligned with the United Nations (UN) Sustainable Development Goals (SDGs), a set of 17 interrelated goals that articulate the desired outcomes of sustainable development (UN, 2015).

To respond to these expectations, the majority of multinational enterprises (MNEs)—which are often seen as either the saviors or pariahs of businesses’ social and environmental impacts (Burritt et al., 2020)—have included the SDGs in their agendas and integrated financial and sustainability-related non-financial data in their annual reports (KPMG, 2020). However, additional integrated reporting has not necessarily increased businesses’ sustainable behavior (Deegan, 2017; Milne & Gray, 2013; Thomson, 2015). Supported by quarterly financial reporting, growth and short-term profit targets continue to dominate, and the inability to consider the long-term value of sustainability is likely to undermine the possibilities for introducing more sustainable business practices (Bansal & DesJardine, 2014; Slawinski et al., 2017). Additionally, sustainability is frequently positioned as a subordinate approach to profit-making and increasing competitiveness (Hahn & Figge, 2011), although sustainable development would instead require that the traditional economic criteria are subordinated to the criteria based on social and ecological values (Milne & Gray, 2013; Montabon et al., 2016). This raises the question as to whether corporations operating within the constraints of a capitalist system are capable of making profit sacrifices to protect resources and ecosystems for future generations (Contrafatto & Burns, 2013; Gray 1992; Gray & Bebbington 2000; Järvenpää & Lämsiluoto, 2016; Milne 1996). Adding to the challenges, the

SDGs are set to “integrate and indivisible and balance the three dimensions of sustainable development: the economic, social and environmental” (UN, 2015, p. 3). How such a perspective can best be reached from both theoretical and practical standpoints remains an open question, but its resolution is essential to the future of all involved (Burritt et al., 2020).

Sustainability thinking as a concept includes that individuals reflect on why “business as usual” must inevitably change and how it could be different. Recent research argues that sustainable development requires urgent, transformative change (Österblom et al., 2022). However, studies indicate that the process of organizational change toward integrating sustainability is rather taken by smaller steps and with additive changes adopted in various business practices than by radical changes (Morsing, M. & Oswald, D. 2009; Narayanan & Adams, 2017). Furthermore, surveys (Accenture, 2019, 2023) indicate that despite increasing sustainability reporting and discussion, there are few signs that corporate activities would yield significant results in the arena of sustainable development. Hence, it is of interest to examine, what the reality looks like at the ground level, for example, in a Nordic country, where the progress could be expected to be somewhat ahead. As sustainable development is a process in movement, it is important to recognize possible accelerating and hindering factors.

The management accounting literature has been increasingly interested in organizations’ internal actions to respond to aspects of the sustainable development agenda, the role of accounting technologies in those responses and the characterization of why some attempts to change are effective while others are not (Bebbington & Fraser, 2014). This research area seeks to explore what is happening within organizations to understand the dynamics that affect the generation of sustainability-related accounts as well as what role this information might play within the life of the organization.

1.1 The purpose of this dissertation

A change in business organizations toward more sustainable practices is relevant for the sustainability transition. Employees have a key role to bring about the change and to translate corporate sustainability strategies into design and practice. The purpose of this dissertation is to shed light on the process of how employees, both generally and specifically MAs, within MNEs become engaged in promoting corporate sustainability and how this engagement can be developed. Furthermore, it explores the utilization of environmental accounting tools in promoting employee engagement. This purpose is met through the objectives of three

empirical studies. The objectives and the related research questions of these studies are presented in Table 1.

Table 1. Research objectives and questions

Research objectives	Research questions
To examine how employees in local business units of MNEs can become more engaged in sustainability issues and, consequently, develop their own sustainability thinking.	What factors strengthen or hinder the development of psychological ownership of corporate sustainability at the individual level in local business units in an MNE context?
To gain understanding of how the management accountants' professional role affects management accountants' engagement in promoting corporate sustainability.	How could MAs' (perceived) professional role support the development of psychological ownership of corporate sustainability at the individual level in an MNE context?
To examine how employee engagement in promoting corporate sustainability is affected when sustainability perspectives are introduced, through environmental accounting, into their daily work.	How is the individual-level psychological ownership of corporate sustainability affected when sustainability perspectives are introduced, through environmental accounting, into the daily work of employees?

1.2 Positioning and intended contributions of this dissertation

With increased awareness of the crises at hand, the nature of the role of sustainable development as an organizing principle in a variety of policy contexts and over multiple scales has become central (Bebbington & Larrinaga, 2014). Sustainable development has been recognized more widely as a “wicked problem” that requires new ways of thinking, focusing on the topic rather than on discipline-framed starting points. There has been an increasing concern of too little cross-fertilized research on social and environmental issues across accounting, management and policy (Adams & Larrinaga, 2019; Bebbington & Larrinaga, 2014; Gray, et al., 2014). Garcia-Torea et al. (2023) contended that understanding the mechanisms and outcomes of the interplay between sustainability accounting and real sustainability change in organizations requires an interdisciplinary perspective combining the insights of accounting and organization studies. Moreover,

Thomson (2015) argued that sustainability-focused accounting research should be aligned with the evolving sustainability science discourse, that is, become more problem driven and prioritized by the risks posed and the urgency of a solution. The emphasis should be on producing knowledge that in the end can help reduce negative sustainability impacts, contribute to any sustainable transformations, and develop the understanding of the complex, reflexive relationships between nature and society. In a similar vein, there has been a strengthening demand for engaging research in business organizations to identify practice and policy solutions related to sustainable development (e.g., Adams & Larrinaga-González, 2007; Brown & Dillard, 2013). Penetrating analysis of the lived experience of sustainability accounting is considered to be a necessity to deepen our understanding of the transitions toward business organizations with less harmful impact on sustainability (Adams & Larrinaga, 2019; Correa et al., 2023).

To broaden the understanding of developing employees' engagement in corporate sustainability, this dissertation takes an interdisciplinary perspective by combining insights from accounting, organization, organizational psychology and business sustainability research. Consequently, this dissertation contributes to all of these research areas and responds to the call for more cross-fertilized research. On a more general level, by employing psychological ownership theory as a focus driver, this dissertation provides new theoretical and methodological insights to the process of how individuals become engaged in promoting business sustainability—a key process when moving from aspirations to action. Importantly, it sheds light on how the processes that influence employee engagement in promoting corporate sustainability can be developed. Looking more closely from the perspective of accounting research, this dissertation contributes to the management accounting literature by combining the views of psychological ownership with MAs' professional role, and thus providing insights into how MAs as individuals may become more engaged in corporate sustainability. Furthermore, by demonstrating the instrumental value of environmental accounting tools in engaging employees to advance corporate sustainability, this dissertation provides novel insights regarding the usefulness and effectiveness of environmental accounting. Figure 1 gives an overview of this dissertation and the three related studies.

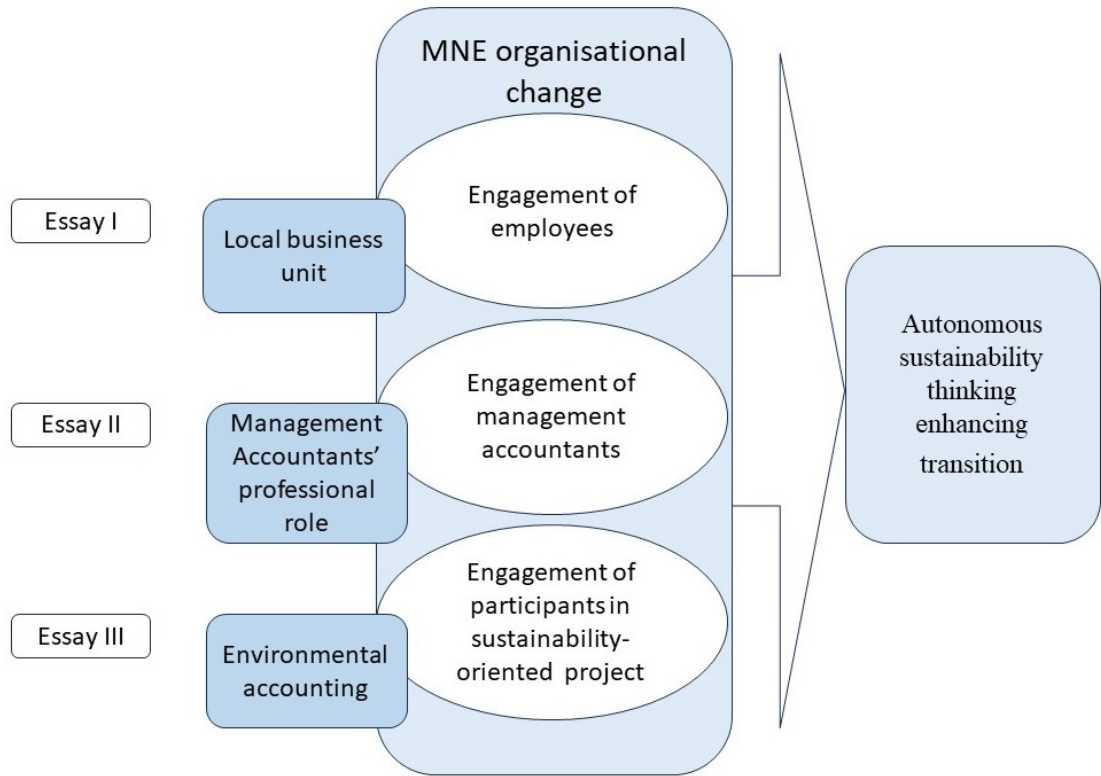


Figure 1. Overview of the studies in this dissertation

2 EMPIRICAL CONTEXT

2.1 Accounting and organizational change toward sustainability

Sustainability accounting research is considered to have its origins in the early 1970s (Mathews, 1997). The publications during the 1970s were, by later standards, fairly unsophisticated (Mathews, 1997) and theoretically underdeveloped (Owen, 2008). Typically, the research was based on descriptive empirical work, outlining the emergence of corporate social reporting initiatives and attempting to build models to improve disclosure practice. However, as an exception to the managerialist mainstream of research, the work of Social Audit Ltd had a very critical approach in their “social audits” on specific target organizations, while they aimed at both transparency and public accountability (e.g., Gray et al., 1996).

The social issues dominated this research area until the mid-1980s, when also environmental aspects began to gain ground (see Gray, 1992; Gray & Bebbington, 2001; Gray et al., 1996). Since the publication of the Brundtland report in 1987, the discipline of accounting has sought to engage with issues emerging from the sustainable development agenda in both conceptual and practical terms (Bebbington & Fraser, 2014; Bennett et al., 2013). The research has drawn from several key theoretical bases, which have collectively captured many angles of organizational justifications and strategies for reporting—for example, legitimacy theory, institutional theory, resource dependence theory and stakeholder theory.

Much of the early literature related to corporate responsibility and practice within sustainability was characterized by discussions of corporate philanthropy (e.g., Carroll 1979, 1991). The more recent management literature has focused on the effects of sustainability management on competitiveness, economic performance (e.g., Porter & Kramer, 2011; Schaltegger & Synnestvedt, 2002; Wagner, 2010), and on value-enhancing capabilities (Malik, 2015). In the management accounting literature, there has been a wide range of studies centered on corporate voluntary sustainability disclosures through accounting and reporting, examining factors that influence the reporting practices of corporations (Mata et al., (2018). Additionally, the issue of corporate “accountability”, and the relation toward stakeholders have been of a great research interest (Deegan, 2017).

The integration of sustainability into organizational practices has called for quite varied empirical research, including studies of, for example, the attitudes toward sustainable reporting (Adams, 2002; O’Dwyer, 2003), motivations of decision-

makers for sustainable practices (Norris & O'Dwyer, 2004; Schaltegger & Burritt, 2018), power and politics (Powell & Tilt, 2017) in organizational change, the process of sensemaking in the sustainability context (Cramer et al., 2006; Onkila et al., 2018), the use and meaning of management control systems in facilitating change related to sustainability (de Villiers et al., 2016; Morsing & Oswald, 2009), and the role of environmental accounting (Adams & McNicholas, 2007; Bouten & Hoozée, 2013; Gray et al., 1995; Larrinaga-Gonzalez et al., 2001). There have also been studies, even if not numerous, that have concentrated more explicitly on organizational change toward sustainability (see e.g., Contrafatto & Burns, 2013; Narayanan & Adams, 2017).

My work relates strongly to the literature that seeks to explore what is happening within organizations to understand the dynamics that affect the generation of sustainability-related accounts as well as what role this information might play within the life of the organization. I have limited the research to business organizations, more specifically to MNEs, because they have typically been placed at the forefront of the sustainability transition (Burritt, et al., 2020). Moreover, my own background as an MA in MNEs has provided contextual insights and access to empirical data at the MNEs' local business unit level.

2.2 MNEs, their employees, and the sustainability transition

There is a vast literature directing focus on corporate implementation strategies at the organizational level (Aguinis & Glavas, 2012; Glavas, 2016). Previous studies suggest that for an MNE to truly integrate sustainability across its operations, it's crucial to empower managers at both headquarters and local units with varying levels of authority, both formal and informal (Arenas & Ayuso, 2016; Burritt et al., 2020; Husted & Allen, 2006). Despite the ethos of local responsiveness inherent in sustainability thinking, Bondy and Starkey (2014) found that global–local integrated internationalization strategies typically mirror the global strategies set by headquarters, sidelining local issues. In the same vein, Barkemeyer and Figge (2014) coined the concept “headquartering effect” to refer to developments in which sustainability-related strategic decision-making focuses primarily on MNE headquarters, limiting local perspectives over time (see also Ike et al., 2021). As a response to these concerns, Liou and Rao-Nicholson (2021) suggested linking subsidiary (local business unit) identities with SDGs to incorporate unique local perspectives, acknowledging both parent and local stakeholder demands.

However, to broaden our understanding of MNE sustainability transitions, there is a need for research that explicitly focuses on how local business units perceive corporate sustainability (Burritt et al., 2020; Jamali et al., 2020). For example, adopting a local viewpoint on the implementation of corporate sustainability strategies, Engert and Baumgartner (2016) found that both employee motivation and internal communication have been largely ignored in the studies on implementation of corporate sustainability strategies.

2.2.1 Corporate sustainability and employee engagement

The relevance of including individual-level dimensions into the corporate sustainability studies has become evident (Gond et al., 2017; Rupp & Mallory, 2015), as employees' supportive behavior is critical in implementing sustainability-related strategies of corporations (Daily & Huang, 2001; Meuer et al., 2020; Ones & Dilchert, 2012).

With a focus on employees, an extensive literature has examined the role of managers and how managers' different perspectives on sustainability issues affect the company's strategies or initiatives for sustainability (e.g., Banerjee, 2001; Hahn, et al., 2014; Sharma, 2000). Another important stream of individual-level corporate sustainability research has addressed the relationship between corporate sustainability and employee engagement in organizations. These studies have typically focused on how corporate sustainability affects employees' attitudinal and behavioral outcomes, and some have also involved potential mediators and moderators (Glavas, 2016). In terms of attitudes, studies have shown that employees' favorable views on corporate sustainability positively affect organizational commitment (Shen & Jiu-hua Zhu, 2011), organizational identification (Farooq et al., 2017), job satisfaction (Asrar-ul-Haq, 2017), and employee work engagement (Rupp et al., 2018). Considering behaviors, it has been shown that corporate sustainability positively affects, among others, in-role and extra-role performance (Shen & Benson, 2016), employee creativity (Hur et al., 2018), and organizational citizenship behavior (OCB; Gao & He, 2017). More recently, the effects of employees' attitudes and behavior on the environment as organizational citizenship behavior for the environment (OCBE) has become topical in individual-level research (Francoeur et al., 2021). Daily et al. (2009) defined OCBE as discretionary behavior of employees that is not rewarded or required by the organization but contributes to environmental improvement. This stream of literature examines how employees engage in actions and behaviors related to environmental sustainability, promoting or undermining it on a rather informal and voluntary base (e.g., Abbas et al., 2022; Daily et al., 2009)

However, for corporations to implement their sustainability transition strategies and to ensure their social and environmental accountability, they need to look beyond the realm of voluntary corporate sustainability behavior. Employees have too readily been conceptualized as carrying out corporate sustainability interventions through extra-role behaviors rather than within-role behaviors, although there is a need for more employee involvement in the design and practice of corporate sustainability (Hejjas et al., 2019). Successful corporate sustainability implementation requires engaging people throughout the organization in sustainability efforts (Süßbauer et al., 2019; van der Heijden et al., 2012). Accordingly, there is a need to increase the understanding of the processes that influence employee engagement in promoting corporate sustainability and, more importantly, how such engagement can be developed.

3 THEORETICAL UNDERPINNINGS

3.1 Psychological ownership as a precondition for sustainability thinking

Studies that have focused on exploring the underlying mechanism of perceived corporate sustainability and employees' outcomes have frequently relied on social identity theory (dominating), signaling theory, and social exchange theory (Gond et al., 2017), all of which can be seen as fundamental frameworks to understand how employees make sense of and navigate in an organizational relationship context. In addition, the multifaceted and complex nature of corporate sustainability has led researchers to use sensemaking (e.g., Sarna et al., 2022) and paradox theory (e.g., Carollo & Guerci, 2018) to investigate how individuals may deal with corporate sustainability-related tensions. However, studies on the psychological mechanisms that may further explain the drivers of corporate sustainability or the process through which individuals may become engaged in enhancing corporate sustainability are rare (Gond et al., 2017; Onkila & Sarna, 2022). In this nascent research stream, the theoretical approach has been broadened to incorporate social cognitive theory (Opoku-Dakwa et al., 2018) and psychological ownership theory (Bhattacharya, 2019).

At the beginning of my research, when I weighed the usability of different theories, I felt drawn to psychological ownership theory for its clarity and processual character. It provides a well-structured framework through which, in an organizational context, the individual-level engagement in the transition of business practices toward sustainability can be described and understood. Because of its processual nature, the psychological ownership framework is particularly suitable for the studies of this dissertation. Additionally, it offers a heuristically practical management approach to engage employees in the corporate sustainability transition.

3.1.1 Psychological ownership theory

The human need to possess and the elements of psychological ownership have interested scholars from various disciplines for more than a century (Pierce et al., 2003). When Pierce et al. (2001, 2003) conceptualized the perspective of psychological ownership, they built on the work of anthropologists, psychologists, social psychologists, sociologists, philosophers, behaviorists and geographers, among others.

Dawkins et al. (2017) identified two schools of thought related to the origins and state of ownership. On the one hand, scholars believe that individuals have an inborn need to possess, and as the desire for possessions can be observed across most cultures, the state of ownership seems instinctive. Other scholars point out that there is no evidence to support the idea of an ownership instinct and claim that ownership is a learned behavior that emerges as an early developmental process. Currently psychological ownership scholars tend to accept that psychological ownership emerges because it “satisfies certain human motives, some of them having genetic origin and others social in nature” (Pierce et al., 2001, p. 300).

The core of psychological ownership is the feeling of possessiveness and of being psychologically tied to an object (Pierce et al., 2001, p. 299). Conceptually Pierce et al. (2001, 2003) defined psychological ownership as the state in which individuals feel as though the target of ownership or a piece of that target is “theirs” (i.e., “It is mine!”). They also argued that psychological ownership incorporates both affective and cognitive elements. As expressed by Etzioni (1991, p. 466), ownership is a “dual creation, part attitude, part object, part in the mind, part real.” Psychological ownership represents the feeling of possessiveness and psychological attachment to an object without the presence of formal or legal claims of ownership (Mayhew et al., 2007). Although often related to person–object relations, ownership can also be felt toward other people or immaterial objects, such as ideas and words (Pierce et al., 2003); design (Baxter et al., 2015); groups, organizations, work, and jobs (Van Dyne & Pierce, 2004); the environment (Süssenbach & Kamleitner, 2018; Ullah et al., 2021), and sustainability (Bhattacharya, 2019)

Pierce et al. (2001, 2003) suggested three fundamental human motives as the primary cause of psychological ownership: efficacy and effectance, self-identity, and having a place (belongingness). Additionally, they suggest that the three motives are complementary and additive in nature. Thus, individuals can develop feelings of ownership for a variety of objects as long as these objects allow one or more of the three motives to operate and to be satisfied.

Efficacy and effectance as a motive reflects the basic human need to feel capable in a given domain (Bandura, 1977). The desire to experience causal efficacy, that is, to take control of and shape the environment, leads to attempts to take possession and to the emergence of ownership feelings (Pierce et al., 2003). It is essential that we perceive we can influence and do something. The vast environmental and social problems we and our planet face may leave many of us feeling ineffectual and unable to make an impact. However, if we were able to take

ownership of sustainability, we would also likely start to take actions and to shape the environment, (i.e., create solutions to sustainability problems; Bhattacharya, 2019). Nearly everything individuals do can be done with sustainability in mind. Hence, any behavior that “consciously seek to minimize the negative impact of one’s actions on the natural and built world” (Kollmuss & Agyeman, 2002, p. 240) is likely to satisfy the efficacy need.

Self-identity as a motive is about how we define ourselves. We establish, maintain, and transform our sense of identity through our interaction with possessions and reflections upon their meaning (Dittmar, 1992). We also use our possessions to define and indicate our identities to externals, while the objects that we own are symbols of self-identity (Dittmar, 1992). The feeling of ownership creates a bond between an object and a person. Due to this bond everything that affects the object also affects the owner to some extent (Kamleitner, 2014).

Having a place (belonging) has been considered as a central human need and linked to the feelings of ownership by number of scholars (e.g., Ardrey, 1966; Duncan, 1981; Pierce et al., 2001, 2003; Porteous, 1976; Weil 1949/19529. Feelings of psychological ownership that originate from a place or an object become a “home” or an individual’s own place (Pierce et al., 2001). In an organizational context, belongingness in terms of psychological ownership can be understood as being a member of a group or an organization. When people feel like owners in an organization, their need for belongingness is met by “having a place” as their social and socio-emotional needs are met (Avey et al., 2009).

In addition to the three motives described above, a sense of responsibility for an object has also been suggested as a motive behind psychological ownership. Parker et al., (1997) suggested that individuals have a stronger feeling of ownership when they have concern for and a sense of responsibility for the target. Avey et al., (2009) extended the conceptualization by Pierce et al. (2001, 2003) to include the dimension of accountability. According to them, accountability can be considered a component of psychological ownership primarily due to the expected right to hold others accountable and the expectation for one’s self to be held accountable. This approach concerning sense of responsibility deviates to some extent from Pierce et al. (2003), who theorized that psychological ownership and perceived responsibility are actually distinct states, whereby a sense of responsibility or concern for an object is derived from psychological ownership, rather than being a component of it (Dawkins et al., 2017).

Pierce et al. (2001) identified three major routes through which psychological ownership emerges: having control over the object, developing deep knowledge about the object, and investing the self in the object. Translated to the context of

sustainability, this means that any perceived increase in control over actions having a sustainability impact, any perceived increase in knowledge about sustainability issues and related impacts, and any personal investment that people assume to make into sustainability improvement may lead to an increased sense of ownership of it.

The ability to *control* something most often leads to feelings of ownership toward it. The more control and power we exercise over an object, the more we view it as an extension of our selves (Furby, 1978). To have control calls for a degree of freedom or autonomy in the relation and interaction with the object (Pierce et al., 2009). One aspect of control is the effects of participating in decision-making. People are likely to embrace psychological ownership of decisions of which they have been a part, that is, the decisions become “their decisions” and they feel that they are “the cause” (Jussila et al., 2015). Thus, when sustainability is the object, by giving employees a voice and actually following that voice in MNEs can promote their employees to take psychological ownership of corporate sustainability.

When individuals associate themselves with a particular object, and *come to know it intimately*, feelings of ownership arise (Pierce et al., 2001). Furthermore, “the more information and better knowledge an individual has about the object, the deeper the relationship is between self and the object, and hence, the stronger the feeling of ownership is toward it” (Pierce et al., 2001, p. 301). Organizations typically provide their members with opportunities to know potential objects for ownership. It can be expected that MNEs would provide local business units with information related, for example, to their sustainability goals. While information may not be sufficient to create a sense of ownership but the intensity of association will influence the outcome (Pierce et al., 2001). A longer, wide-ranging association with sustainability will likely lead to perceptions of a deeper understating of sustainability, and, as a result, to a sense of ownership of sustainability.

The *investment of the self* into an object allows individuals to see their reflection in the object and to feel their own effort in its existence (Pierce et al., 2003, p. 93). The more time, effort, and energy the individual invests on an object, the stronger their sense of ownership will become. This may even lead to an individual beginning to feel that the object of ownership is part of their identity (Pierce et al., 2001). Hence, the more of their time, effort, skills and attention the individuals expend on sustainability thinking, in both their professional and their personal lives, the stronger their sense of ownership for sustainability will become.

The three routes to psychological ownership (similarly to the motives for psychological ownership) are considered to be distinct, complementary and additive in nature (Pierce et al., 2003). Thus, any single route can result in

ownership independent of the others, although multiple routes are likely to strengthen the feeling of ownership. The emergence of psychological ownership is likely to be a long and dynamic process (Pierce et al., 2003).

Although the three motives behind psychological ownership are universal, there are individual differences that influence the process toward psychological ownership (Pierce et al., 2003). The strength of motives will vary across individuals and the lifespan. Furthermore, personal values, personality, different traits, and cultural background impact the way an individual pursues relationships with objects.

3.1.2 Interplay between sustainability thinking and psychological ownership

The characteristics of the object affect the extent to which the three motives are fulfilled and how the object enables or inhibits the routes to ownership (Pierce et al., 2003). The features of corporate sustainability provide excellent ground for stimulating psychological ownership, as it allows people to participate in impactful solutions, to express personal values and identity through work, and to be part of something larger (Bhattacharya, 2019). Corporate sustainability expands the concept of work beyond task, job, intra-individual, intra-organizational, and profit perspectives, thus providing an ideal conduit for individuals to seek and find meaningfulness through work (Aguinis & Glavas, 2019). In the same vein, Opoku-Dakwa et al. (2018) suggested that the features of corporate sustainability initiatives affect employees' sustainability engagement because they lead employees to anticipate personal, organizational, and humanitarian impacts that are meaningful. Thus, corporate sustainability is likely to provide employees with a new purpose in their work (Bhattacharya, 2019; Bhattacharya et al., 2022).

Building on the routes to psychological ownership and translated into the context of sustainability, this notion implies that any perceived increase in control over actions that positively impact sustainability, any perceived increase in knowledge about sustainability issues and their related impacts, and any personal investment people make in improving sustainability may lead to an increased sense of ownership of sustainability. This dissertation examines, from various angles, how sustainability thinking can be embedded in the MNE context by identifying the factors that influence the individual ownership of corporate sustainability through the different routes to psychological ownership (Figure 2).

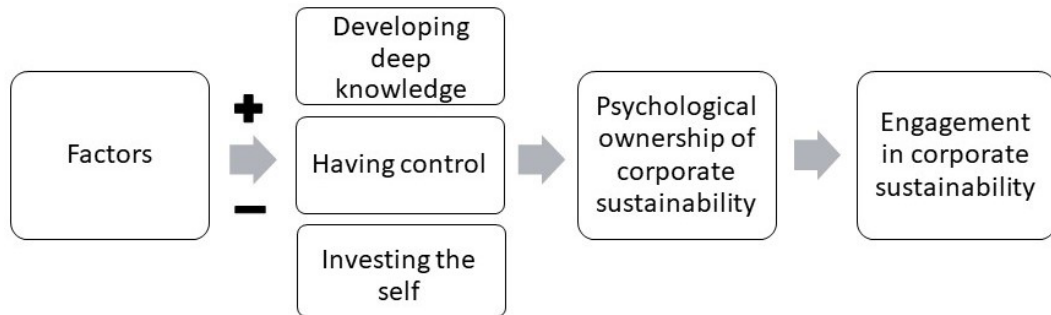


Figure 2. The process of the development of sustainability thinking through psychological ownership (essay I)

Feelings of ownership for an object are associated with many potentially positive outcomes that, when sustainability is the object, would significantly advance sustainable thinking. Such outcomes in other contexts have included, for example, positive attitudes toward the object, enhanced self-concept, citizenship behavior that contributes to the community's well-being and responsible behavior (Pierce et al., 2003; Süßenbach & Kamleitner, 2018; Van Dyne & Pierce, 2004). When an individual's self-concept is closely linked to the object, a desire to maintain, protect, or enhance that identity will result in an added sense of responsibility (Pierce et al., 2003).

In an organizational work context, the sense of possession is strongly related to work-related attitudes, that is, commitment and satisfaction, to organization-based self-esteem, and to behaviors related to performance and organizational citizenship (Avey et al., 2009; Van Dyne & Pierce, 2004). Pierce et al. (2009) argued that complex and enriched jobs promote the emergence of psychological ownership feelings toward one's job. The complexity of sustainability and the needed creative thinking in solving sustainability problems may provide a great stimulus to the job. Hence, by using their means to encourage sustainability thinking, such as organizational culture and climate, attitudes of management, corporate goals and vision, the organization's reputation, corporate policies and procedures, and job design, MNEs can simultaneously strengthen their employees' psychological ownership toward their jobs, the organization, and sustainability.

However, it should be noted that under certain circumstances, a feeling of ownership may also have potentially negative outcomes. It might grow the feeling of responsibility so that it becomes an overwhelming burden, or cause negative behavior due to an individual's unwillingness to share the target with others or due to a need to retain exclusive control over the target (Pierce et al., 2003). Moreover, a radical change related to the target that is perceived as one's own may cause

feelings of personal loss, frustration, or stress. These effects originate in the lack of control over what was once mine (Pierce et al., 2003).

As an extension to individual psychological ownership, Pierce and Jussila (2010) introduced the construct of collective psychological ownership. They define collective psychological ownership as a collectively held sense that the object of ownership (or part of it) is collectively “ours.” For collective psychological ownership to awaken, two or more individuals have to interact with the same object within their domain, they need to be aware of one another’s interactions, and they need to come to a shared mindset. Regarding the development of sustainability thinking within MNEs, in addition to individual-level psychological ownership, a collective approach toward ownership is evidently needed. The requirement of collectiveness can be recognized even in the SDGs. Thus, it can be stated that it would be beneficial for sustainability, if both individual and collective psychological ownership could be aroused. However, because it is considered very unlikely to experience psychological ownership at a collective level if a person does not experience it at an individual level (Pierce & Jussila, 2010), in this dissertation I focus on the development of individual psychological ownership.

3.2 The developing professional role of MAs in implementing corporate sustainability

In essay II, it was of interest to establish a theoretical link between the possible involvement of MAs’ professional role to include sustainability-related tasks and the psychological ownership theory. This theory provides a structured framework within which the possible transfer of MAs’ professional role to include corporate sustainability can be described.

Biddle (1979) defined a role as a set of expectations associated with a particular social position in a specific type of setting. This includes the assumption that individuals are an integral part of the social structure and have expectations of both their own and others’ behavior (Biddle, 1986). Within a business organization, individuals are interconnected with other members based on the functional requirements of the organization. Consequently, each individual’s role is significantly influenced by the collective expectations held by other members of the organization (Katz & Kahn, 1978).

The professionally designated role is intertwined with the concept of role identity (Ashforth, 2000; Goretzki et al., 2013). The role identity encompasses the goals, values, beliefs, norms, interaction styles, and time horizons typically affiliated with a given role (Ashforth, 2000). While the role sets the boundaries for an individual

to interpret and comprehend themselves when fulfilling the role, role and identity develop in interaction (Ashforth, 2000; Chreim et al., 2007; Ibarra, 1999). Thus, the integration of role and identity is a reciprocal and transformative process in which individuals both adapt to their roles and influence their own roles and influence the development of personal and professional identity.

The literature on the MAs' professional role (e.g., Ala-Heikkilä & Järvenpää, 2023; Burns & Baldvinsdottir, 2005; Goretzki et al., 2018a; Goretzki & Messner, 2019; Granlund & Lukka, 1998; Järvenpää, 2007; Lambert & Sponem, 2012; Sathe, 1983) has described a transition from a conventional scorekeeper or "bean counter" role toward a more business-oriented and strategic business partner role. While scorekeepers are recognized for their involvement in tasks such as data collection, analyses, and report preparation, (Friedman & Lyne, 1997), often adopting a consulting or watchdog approach (Granlund & Lukka, 1998), business partners are expected to take an active role in value creation, business management, and control (e.g., Burns & Baldvinsdottir, 2005; Järvenpää, 2007). Moreover, they are assumed to serve as an interface between business operations and senior management (Goretzki et al., 2018b; Schaltegger & Zvezdov, 2015). Typically, business partnering is associated with organizational improvements regarding internal processes, decisions and efficiency (Wolf et al., 2015).

The tasks of business partners have been described in the literature at a rather abstract, ambiguous level (Goretzki et al., 2018b), thus leaving plenty of room for interpretation of the content of the business partner role (e.g., Coad & Herbert, 2009; Morales & Lambert, 2013). In general, the business orientation emphasized in the role is thought to increase the value and standing of MAs in the organization (Goretzki & Messner, 2019), and the role of business partner has been raised more or less to an ideal model role (Goretzki et al., 2018b; Morales & Lambert, 2013). Morales (2019) argued that the majority of MAs, whose perspectives have been reiterated in the accounting literature, have held the opinion that they are or should become business partners, although they have had conflicting views on what that embraces. As a result, MAs are driven to base their professional identity on an imagined, aspirational business partner role (Goretzki & Messner, 2019; Morales & Lambert, 2013).

3.2.1 The role of MAs in an MNE context

Despite variations in organizational settings across countries and industries, the role of MAs as business partners has gained ground within MNEs in recent decades (Goretzki et al., 2018b). This trend has been greatly facilitated by decentralization, which has strategically positioned MAs close to operational managers, promoting

increased interaction with operational management and the organization (Burns & Baldvinsdottir, 2005; Byrne & Pierce, 2007; Granlund & Lukka, 1998; Järvenpää, 2007). Additionally, the adoption of standardized accounting or enterprise resource planning (ERP) systems has played a role in this evolution (Caglio, 2003; Coad & Herbert, 2009; Järvenpää, 2007). As a result, MAs have acquired valuable experience and expertise, which has strengthened their business orientation. However, it is worth noting that the role of MAs has typically not been exclusively limited to business partnering. They are typically expected to maintain a somewhat conflicting functional orientation in corporate control (Goretzki et al., 2018a; Lambert & Sponem, 2012; Maas & Matejka, 2009; Rieg, 2018). Consequently, while MAs bear the responsibility of actively collaborating with local managers in identifying profitable action strategies, they also shoulder the duties of conducting corporate compliance and control activities and furnishing information to functional managers. This dual role is presumed to expose them to potential role conflicts (Hopper, 1980; Maas & Matejka, 2009).

The roles of MAs have continuously been reshaped through various developments, such as globalization, competitive customer-oriented markets, digitalization, standardization and academization of the profession (Goretzki & Strauss, 2018). In light of the increasing importance of considering sustainability in business operations, coupled with the diverse expectations outlined in the literature regarding MA roles, it could be presumed that MAs have the opportunity as well as an obligation to direct part of their attention to promote sustainability-oriented processes and to contribute to the dissemination of sustainability accounting and reporting within the MNEs. The role of business partner places significant expectations on MAs to be proactive influencers, exerting a substantial impact on the actions of other organizational members, including managers. Furthermore, MAs' functional responsibility for corporate compliance and control activities equips them with certain authority. However, previous studies have indicated that MAs' actual influential power is highly dependent on collegial managers' views on MAs and what they allow MAs to do (e.g., Ala-Heikkilä & Järvenpää, 2023; Morales & Lambert, 2013). A combination of MA's abstract knowledge and other organizational actors' operational expertise has resulted in both competition and conflicts between the parties (Armstrong, 1985; Ezzamel & Burns, 2005; Vaivio, 1999). Moreover, while corporate culture significantly influences and shapes the role of MAs in an organizational context, the individual position and role of MAs is largely determined by the location of the management accounting function within an organization (Järvenpää, 2007). Byrne and Pierce (2007) found that MNEs tend to follow a more imposed corporate model in determining the role of MAs, and the roles are typically standardized, institutionalized and predefined in

the business units of MNEs. Hence, MAs have a limited ability to reshape their own roles, despite their own attitudes and initiatives.

3.3 Environmental accounting tools in use

The case study of essay III considers the potential instrumental value of environmental accounting tools in engaging employees in corporate sustainability. Therefore, the following section elaborates on the research on environmental accounting and related tools.

To enhance organizational sustainability, it is crucial to understand and address both positive and negative sustainability impacts, to seek ways to improve these impacts, and to assess the effectiveness of implemented changes (Epstein & Buhovac, 2014; Maas & Liket, 2011; Schaltegger & Burritt, 2000). Thus, developing the capability to measure and monitor these impacts is a prerequisite for corporate sustainability. This is essential for two reasons. First, because of the public interest in sustainable development, corporate sustainability is closely related to transparency and accountability (Gray, 2010) that enable external validation. Second, strategic SDGs must be translated into operational activities with measurement and management playing a crucial role (Bebbington & Unerman, 2018; Maas & Liket, 2011; Schaltegger & Burritt, 2010). Maas et al. (2016) suggested that both perspectives can complement each. However, simultaneously achieving transparency, informed decision-making, and improvement in sustainability requires application of management accounting, control, and reporting tools (Maas et al., 2016). This is essential to generate, analyze, and communicate information related to sustainability effectively.

The extent literature has addressed the role of environmental (and social) accounting and related tools in a broader context (Bebbington et al., 2007; Bonacchi & Rinaldi, 2007; Burritt et al., 2002; Schaltegger & Wagner, 2006). Moreover, specific emphasis has been placed on the significance of accounting and reporting within corporate sustainability processes (e.g., Bebbington & Larrinaga., 2014; Burritt & Schaltegger, 2010). Simultaneously, researchers have debated the effectiveness of environmental accounting, and whether it genuinely contributes to environmental sustainability outcomes (e.g., Bebbington & Larrinaga, 2014; Gray, 2010; Gray & Milne, 2013; Järvinen et al., 2022; Milne & Gray, 2013; Parguel et al., 2011). For example, Milne and Gray (2013) argued that the institutionalized concept of the triple bottom line (TBL), which focuses on financial, environmental, and social factors, is too narrow and has sidelined ecological concerns. Incomplete reporting makes organizations seem more sustainable than they actually are,

which may, paradoxically, support business-as-usual and increased unsustainability. Parguel et al. (2011) found, that because many corporations use sustainability communication to enhance their corporate image, sustainability ratings from independent agencies could act to deter “greenwashing” and to encourage virtuous companies to continue their sustainability practices.

When taking an operative performance management perspective, scholars have addressed the usability of environmental accounting to promote organizational change toward more sustainable practices (see Garcia-Torea et al., 2023). For example, researchers have explored the role of environmental management accounting, full cost accounting, or sustainability assessment models as drivers of organizational change (e.g., Albelda-Pérez et al., 2007; Arjaliès & Mundy, 2013; Bebbington et al., 2007; Bouten & Hoozée, 2013; Contrafatto & Burns, 2013; Fraser, 2012; Gunarathne & Lee, 2015; Larrinaga-Gonzalez & Bebbington, 2001; Moldavska & Welo, 2019). Moreover, the need of creditable sustainability performance measurement has been emphasized (Burritt & Schaltegger, 2010; Hansen & Schaltegger, 2016; Jones, 2010), as “measurement makes visible what has previously been invisible and enables us to capture the otherwise hidden attributes of the object” (Jones, 2010, p. 129.) Accordingly, researchers have investigated how companies actually collect, analyze, use and internally communicate sustainability information; what tools they apply to do so; how the processes between company-internal actors are organized; and how different sustainability accounting, management control, and internal communication and reporting methods play together (for a review, see Maas et al., 2016).

4 RESEARCH METHODOLOGY

This section explains the principles and methods of data collection and analysis. First, the paradigmatic assumptions with regard to the research field are discussed. Then, the selected research approaches are justified. Finally, the data collection procedures and analysis methods applied are presented in more detail.

4.1 Research philosophy

Within the domain of social sciences, including the field of management accounting (Lukka, 2010), researchers can employ diverse approaches to examine a phenomenon. These approaches are underpinned by the research philosophy, which informs the epistemological and ontological foundations of research methodologies and the interpretation of social phenomena (Ryan et al., 2000). Epistemological assumptions determine what qualifies as acceptable truth by outlining the criteria and the methodology for evaluating truth claims, while ontology defines the researcher's assumptions regarding the “object” of study, that is, the nature of the phenomenon under investigation (Chua, 1986). To enable relevant audiences to comprehend and evaluate the research methodology and its trustworthiness, researchers must adhere to specific principles and present the applied philosophical paradigm or framework (Burrell & Morgan, 1979).

As per Lukka (2010), accounting research, inclusive management accounting, has been notably shaped by an economics-centered approach, marked by a significant dependence on extensive data analysis and analytical modeling. Accordingly, mainstream accounting research relies on an objective view of society, regards individual behavior as deterministic, employs empirical observation, and utilizes a positivistic research methodology (Ryan et al., 2000). However, the dominance of one paradigm (positivism), has been repetitively questioned by scholars, and alternative views have been raised (e.g., Hopper & Powell, 1985; Lukka, 2010; Tomkins & Groves, 1983). Over time, academic research in accounting has gradually diversified its approach toward understanding the roles of accounting practices within a broader context, that includes psychological, organizational and, subsequently, societal factors (Lukka & Modell, 2017). Since the mid-1980s, interpretative research has developed into a more distinct research tradition within accounting (Lukka & Modell, 2017).

This dissertation draws from the interpretative research tradition, which enables to gain a deep understanding of the process of how employees of MNEs become engaged in promoting corporate sustainability. Interpretative research aligns closely with constructivist and subjectivist epistemologies, acknowledging that

human experiences and social reality are constructed, subjective, and context-dependent (Chua, 1986). In addition to subjectivist elements, interpretative research within management accounting typically includes objectivist features (Ahrens, 2008; Hopper & Powell, 1985; Kakkuri-Knuuttila et al., 2008; Lukka & Modell, 2010). The ontological position recognizes the multiplicity and complexity of social reality. It asserts that social phenomena are not fixed; rather, they are constantly evolving and shaped by human interpretation and interaction (Chua, 1986). Interpretative research aims to provide coherent explanations of real-life situations, and to offer meaningful insights by emphasizing logical consistency, subjective interpretation, and the proposal of adequacy (Chua, 1986). Qualitative methods like interviews, participant observations, and content analysis are commonly employed in interpretive research to explore the subjective realm of participants and to uncover the complex web of meanings and interpretations that underlie social phenomena (Parker, 2012; Vaivio, 2008).

4.2 Research strategy and design

This dissertation, through its three essays, adopts an interpretative research tradition. This has provided the reference point for the application of a qualitative research approach, guiding the study design (see Table 2), data collection methods, and analytical approaches. Qualitative research emphasizes the understanding and critique of process and context, as well as the recognition of uniqueness and difference (Chua, 1986; Parker, 2012). For a qualitative management accounting researcher, “reality” is created by organizational actors’ interaction with each other and their contextual environment (Parker, 2012). Thus, the research involves close engagement with individuals and their environments (Vaivio, 2008).

In each essay, psychological ownership theory was utilized as a focus-driving method theory (Lukka & Vinnari, 2014). Accordingly, the aim was not to test the theoretical concepts of psychological ownership, but rather to utilize it as a guiding framework in the analysis of the empirical data. In essay II, the professional role of MAs provided an additional framework for the analysis. An abductive approach (Lukka, 2014) was employed in the analysis, where the theoretical framework(s) were in iterative dialogue with the empirical data (Lukka & Modell, 2010; Timmermans & Tavory, 2012). Abduction is about developing theoretically informed explanations into new, empirical observations; it utilizes prior theoretical knowledge to provide a background to the search for the most plausible explanation for empirical observations (Lukka & Modell, 2010). Thereby, the analysis differs from both deductive analysis, which focuses on empirical testing

of hypotheses derived from extant theories, and inductive analysis, which aims to generate new theoretical insights from empirical data (Lukka & Modell, 2010).

Table 2. Research design

	Essay I	Essay II	Essay III
Research philosophy	Interpretative	Interpretative	Interpretative
Research type	Qualitative	Qualitative	Qualitative Single case study
Theoretical framework(s)	Psychological ownership theory	Psychological ownership theory The role of the profession of management accountants	Psychological ownership theory Environmental accounting project as an intervention
Data sources	Semi-structured interviews (N=29) with representatives of different managerial positions in 7 Finnish local business units of 3 different MNE Documentation by MNEs: Presentation material of the local business units Sustainability reports 2019 Web sites	Semi-structured interviews (N=32) with representatives of management accountants and management team members in 7 Finnish local business units of 3 different MNE Documentation by MNEs: Presentation material of the local business units Sustainability reports 2019 Web sites	Participatory observation (12 months) Semi-structured interviewees (N=18) with participants from 7 European countries in an environmental accounting project Case company documentation Sustainability reports 2021 and 2022 Web sites

4.2.1 Research context and data sources

This dissertation focuses on individuals working in MNEs. The two first studies were conducted parallel in seven local Finnish business units that are part of three different MNEs, and the third study was a single MNE case study. For the two first studies, the aim was not to conduct multiple case studies (Yin, 2014) to compare different case settings or explore the differences between the MNEs case by case. Rather, the aim was to study individuals in an MNE context that was common to the studied companies.

Essays I and II were based on 29 semi-structured interviews; an additional three interviews were conducted for essay II. To ensure informative but still manageable data, the selection of the interviewees was based on the purposive sampling method (Patton, 2002) using criteria in two steps. The first step was set to ensure certain contextual congruence in the data. All the interviewees worked in Finnish local business units of MNEs that operate within the technology industry and serve the energy and transport sector. The MNEs can be regarded as forerunners in the context of sustainability, and in their business, because they aim to invent new products and solutions that enable sustainable development. They all base their sustainability strategy on the three pillars of sustainable development recognized by the UN—economic, social, and environmental—and report their sustainable development in accordance with the Global Reporting Initiative Standards adapted to the SDGs. Their sustainability targets are supported throughout the companies by management systems, tools, and practices related to sustainability issues. In addition, a systematic approach is used, including measurement, reporting, and external auditing of their sustainability performance. Furthermore, in Finland, as one of the Nordic welfare states, the governmental attitudes toward sustainable development are frequently positive and social awareness (and pressure) is rapidly increasing (Sachs et al., 2021, 2022). Therefore, it is reasonable to suggest that while enhancing sustainable development at the societal level, the relevant cultural aspects also reinforce sustainability thinking in the chosen local business units (Marano & Kostova, 2016). The second-step criterion was set to capture a wide range of perspectives relating to sustainability thinking, and, particularly for essay II, a versatile picture of the MA roles. Accordingly, the interviewees represented different managerial positions or MA roles within the local business units. Thus, although all the interviewees were working in technology industry, the aim was still to gain varied and multiple insights.

Furthermore, in essays I and II, the sustainability reports for 2019, the websites of the MNEs, and the presentation material of the local business units were utilized to gain a comprehensive understanding of the research context—that is, the MNEs'

structures and the operations of the local businesses. Moreover, these sources provided an overview of each company's initiatives regarding its sustainability activities.

The case company in essay III was one of the MNEs studied in essays I and II. Recently, the case MNE has increased its focus on product sustainability, and, as a consequence, one of the MNE global divisions has established an environmental accounting project working on product life cycle assessments (LCAs) and environmental product declarations (EPDs). LCAs assess the environmental aspects and potential impacts associated with a product, process, or service, and quantify through numbers the environmental impacts (see International Organization of Standardization, 2006b). EPDs drive transparency and accountability, as they are independently validated documents that are based on LCAs (see International Organization of Standardization, 2006a). With the acceptance of management of the MNE, the cross-national team in this environmental accounting project, served as the basis for the study. In the initial phase, the cross-national team included about 25 participants from seven European countries.

I collected the qualitative data of the case study by applying multiple resources. First, I collected data through participant observations (Yin, 2014), whereby I as the researcher joined and worked in the environmental accounting project in one of the studied project centers and as a member of the global sustainability council team of the project. The participant observations included attending meetings and discussions on advancing sustainability, examining the available data (e.g., documents, presentations, and emails), and participating in the preparation and publishing of LCAs and EPDs. I observed participants for 12 months in year 2022, and documented my observations in a research diary. Second, during the latter half of the year, after the project had become familiar to the project participants, I collected additional data from 18 project participants during in-depth interviews using semi-structured questions. Of the interviewees, four worked in the global sustainability team while the remaining 14 were employees of different business units. Additionally, to obtain an overview of the company's initiatives regarding sustainability activities, I used the sustainability reports for 2021 and 2022 and the websites of the MNE as information sources.

As mentioned previously, semi-structured interviewees (a total 50), were central sources of information in all three essays of the dissertation. The original intention was to conduct live face-to-face interviews, but because of the COVID-19 pandemic, only six of the interviews were done face-to-face; the remaining interviews were completed online by using Zoom or Teams. The interviewees were

conducted in either Finnish or English and varied in length, ranging from 48 to 130 minutes, with an average time of 71 minutes. With the interviewees' permission, I recorded all but one of the interviews and transcribed them verbatim. Although one interview was not recorded due to a technical malfunction, I took written notes during the interview.

The interviews covered the following themes: views on corporate sustainability and the presence of sustainability aspects, the enabling versus hindering factors in improving sustainability, organizational structures and cooperation, methods for managing a sustainability transition, reporting and measuring sustainability issues, one's own engagement in sustainability at work and/or in private life, and knowledge and skills related to sustainability. Moreover, the interviews related to essay II included the perception of the MAs' role in the sustainability context, and the interviews for essay III covered views on the environmental accounting project, its outcomes and one's own participation. Following a semi-structured interview approach, these topics were openly discussed from the viewpoint of the interviewees' experiences and expectations. This approach allowed for rather flexible conversations to take place while still ensuring that all the interview themes and key issues were discussed with every interviewee (Kvale & Brinkmann, 2009; Legard et al., 2003; Vaivio, 2008).

4.2.2 Data analysis

In each essay of this dissertation, documentation of the participating MNEs had an important role in providing contextual information. Through a careful analysis of the documentation, I was able to confirm the MNEs responsiveness to the sustainability issues, which was critical to ensure there were rich data for the research (Baxter & Chua, 1998). In addition, the documentation provided input for the interview questions in each study. In the third study, there was a greater variation in the available documents, which also supported the interpretation of the participant observations and conducted interviews.

When analyzing the interviewees, similar established procedures of qualitative content analysis with three interlinking phases (e.g., Elo et al., 2014; Miles & Huberman, 1994) were utilized for each essay. During the first phase, each interview was read carefully. Open coding of the empirical material was initiated to condense the data. This phase involved searching for factors relevant for each study. Then, when examining the coded text instances, the codes were grouped into larger categories based on their content. Finally, through the lenses of the theoretical framework, there was deliberation regarding the identified categories and the effects of the routes to psychological ownership of corporate sustainability,

as well as the perceived professional role of MAs in essay II. To enable abductive reasoning, the analysis was an iterative process—that is, the data were revisited several times (Lukka & Modell, 2010; Timmermans & Tavory, 2012). In essays I and II, the analysis and interpretation were done in close author-collaboration. The ATLAS.ti 9 software for Mac was used for each essay to facilitate thorough and critical analysis and categorization of the data.

My participation in the environmental accounting project, cannot be seen as “interventionist research” in the meaning that the active participation did not aim to achieve an empirical intervention or to solve a problem (Jönsson & Lukka, 2006; Suomala et al., 2014) or to produce theoretical advances, for example, by suggesting a new theory or by testing an existing theory (Lukka & Wouters, 2022). Rather, my participation offered the opportunity to develop rich contextualized insights of a business organization’s sustainability activities and its utilization of environmental accounting tools (e.g., Parker, 2012). Moreover, my longitudinal 12-month participation in the project team deepened my understanding of the team members’ daily work, which supported my interpretation of how incorporating sustainability-related tasks into everyday work affects employee engagement in corporate sustainability. The theory-driven focus from the beginning of the research enabled more focused reading, questions, and observations, and increased the depth of the analysis (see Lukka & Wouters, 2022). Keeping a research diary is a way to systemize the execution of the study and to protect data from becoming lost (Atkinson, 1992; Emerson et al., 2011). In the analysis, it proved to be a good tool for iterative reflections between the chosen method theory and the observations.

4.2.3 Credibility of the research

The pursuit of credibility is an integral part of ensuring that research contributes substantially to scientific knowledge, thereby increasing its overall impact and value (Vaivio, 2008). While the tests and measures used to establish the validity and reliability of quantitative research cannot be applied to qualitative research, there has been a lively debate about whether concepts such as validity, reliability, and generalizability are even appropriate for evaluating qualitative research (e.g., Maxwell, 1992; Onwuegbuzie & Leech, 2007). Lincoln and Guba (1985) suggested alternative “trustworthiness” criteria to demonstrate the underlying paradigms, namely truth value, consistency and neutrality, and applicability. Regardless of the terminology, the debate demonstrates that the validation of a qualitative research requires focused attention (Lukka & Modell, 2010).

The foundation of qualitative, interpretive research is often described as the practice of providing comprehensive insights into social phenomena. These insights are referred to as "thick" descriptions (Geertz, 2008) or analyses that offer "rich" understanding (Ahrens & Dent, 1998). The primary focus lies in understanding the meanings people associate with these phenomena, which necessitates highly context-specific and time-specific analyses of how individuals communicate and behave within particular social contexts (e.g., Covalleski & Dirsmith, 1990; Denzin, 1983; Golden-Biddle & Locke, 1993). Moreover, a deeper understanding requires adopting an emic perspective, similarly to that of an insider (e.g., Denzin, 1983). Derived from the foundation of "rich understanding", a central criterion for credibility is authenticity (Lukka & Modell, 2010). The researchers need to convince the readers that they have been present and that they have achieved a truly emic understanding (Golden-Biddle & Locke, 1993).

The entire process of collecting, analyzing, and reporting data, must be carried out with trustworthiness in mind (Elo et al., 2014). Achieving credibility requires an accurate description of the analysis and demonstrating the relationship between the results and original data (Lukka & Modell, 2010). Using multiple data sources, as in this dissertation, is a recognized way to increase the reliability and plausibility of qualitative research (Golden-Biddle & Lock, 2006; Vaivio, 2008; Yin, 2014). While the aim of this dissertation was to gain a deeper understanding of the phenomenon and not to make sample-to-population generalizations (Englander, 2012), I assessed the interviews through the credibility of the empirical data rather than representativeness (Englander, 2012; Kvale & Brinkmann, 2009). I carefully planned the interview themes to cover the investigated topics. I discussed the interview frameworks with experienced interviewers, and conducted two pilot interviews to test the questions and to gain some practice for balanced, neutral and skillful interviewing (Kvale & Brinckmann, 2009).

Interview situations and the interpretation of interviews inevitably include the researcher's subjectivity, where the researcher's prior knowledge and experience affects the interpretations of new observations (e.g., Pettigrew, 1995; Vaivio, 2008). I have long and solid work experience as an MA in MNEs, which supported the ability to "speak the same language" as the interviewees (Vaivio, 2008), and gave sensitivity to the analysis (Patton, 2002). However, I was aware of the risk of a possible biased or narrow-minded interpretation, which required continuous reflection to ensure the trustworthiness of content analysis (Willmott, 1983). I mitigated this risk in essays I and II through close author collaboration and iterative discussions in analyzing and interpreting the data (Patton, 2002). In essay III, for which I am the sole author, such risk mitigation was not possible. However, the longitude presence and participant observations provided an

opportunity to gain good access to detailed data access, and added to the ways to scrutinize the empirical data iteratively.

Furthermore, in all essays, the utilized focus driving theories provided an important guiding, etic element for making sense of and finding explanatory patterns in the collected data (Ahrens & Chapman, 2006; Ahrens & Dent, 1998; Lukka & Modell, 2010). Numerous iterations between theory and evidence supported a trustworthy outcome (Vaivio, 2008). Finally, to increase the plausibility regarding the sensemaking of explanations and the interpretation, in the written essays I systematically shared original, direct quotations and the guidance of the focus-driving theories with the readers

5 SUMMARIES OF THE ESSAYS

The three essays included in this dissertation are briefly explained in the remainder of this section. Their main ideas, theoretical building blocks, most intriguing findings, and contributions are outlined. The implications of these papers are discussed in more detail in Section 6.

5.1 Cultivating sustainability thinkers: Analyzing the routes to psychological ownership in local business units of multinational enterprises (MNEs) (essay I)

The global crises at hand call for MNEs to seriously address sustainability. Creative and autonomous sustainability thinking is needed to translate the aims of corporate sustainability into actions in the local business units. This essay argued that a precondition for the development of sustainability thinking is that individuals can feel the company's sustainable development as their own. Consequently, the study examined what factors strengthen or hinder the development of psychological ownership of corporate sustainability at the individual level in local business units in an MNE context.

This qualitative study was based on 29 interviews conducted in seven Finnish local business units from three technology-oriented MNEs. An interpretative research approach (e.g., Patton, 2002), with psychological ownership theory as a guiding framework, was adopted.

This study identified several key factors, related to the complexity of sustainability, organizational culture and operations, and views on stakeholder influence that can have contradictory effects, both strengthening and hindering the routes to psychological ownership of corporate sustainability. For example, the broad and complex nature of the sustainability concept causes confusion because sustainability can simultaneously be fascinating, overly ambiguous, and even paradoxical. Moreover, while the dynamics between corporate and the local business unit determines the level of autonomy and the mandate to act at the local business unit level, signals from both corporate and local business unit levels can create confusion. Considering stakeholders, their views can frequently support the routes to psychological ownership. However, the findings also revealed a tendency to outsource responsibility for the sustainability transition to different stakeholders.

Based on the findings, concreteness and linkages to one's own work enable the individuals to understand their own role and impact in the sustainability

transition. Moreover, the routes to psychological ownership are more likely to be reinforced when individuals have the opportunity to contribute their own ideas and to foster autonomous thinking in the realm of corporate sustainability. In other words, the development of psychological ownership tends to be more passive when the influencing factors are already thoroughly addressed. The impact on psychological ownership might even be negative if the intervention is perceived as imposed from above.

This essay contributed to business sustainability research by utilizing the structured framework of psychological ownership theory to provide new insights into how corporate sustainability is perceived at the individual level. Simultaneously, it responded to the call to broaden the scope of theories utilized in business sustainability research, especially at the individual level (Aguinis & Glavas, 2012; Frynas & Yamahaki, 2016). The study also demonstrated the contradictory elements in the factors that impact the emergence of psychological ownership of corporate sustainability. From a managerial perspective the study identified how the routes to psychological ownership can be cultivated to support the sustainability transition of local business units.

5.2 Finding the routes to corporate sustainability in the professional role of management accountants (essay II)

Despite expectations, MAs' participation in promoting and conducting sustainability transition within MNEs has been modest. This raised the question of whether MAs are invited to join in sustainability promotion, or does sustainability somehow not fit the professional role of MAs in terms of ability and willingness. By taking an individual-level viewpoint and by utilizing psychological ownership theory, this study explored how MAs as individuals may become more engaged in corporate sustainability and, consequently, develop their own sustainability thinking. Simultaneously, it provided new insights into how the professional role of MAs could develop to incorporate advancing sustainability.

This qualitative, interpretative study was based on 32 interviews conducted in seven local business units of three technology-oriented MNEs. The data were gathered in connection with the interviews of essay I, and supplemented with three additional interviews. The subject was examined from the viewpoint of both MAs and their colleagues from other professional groups.

The findings indicated that MAs themselves tend to exclude corporate sustainability from their job role, perceiving it more as a concern for other

functions within the organization. Furthermore, there appears to be a discrepancy between the expectations of MAs and their colleagues. The latter expressed a desire for MAs to broaden their focus beyond strict financial aspects, challenging the conventional emphasis of MAs. Specifically, their colleagues saw the implementation of corporate sustainability as a cross-functional undertaking and anticipated active involvement even from MAs in this initiative.

Simultaneously, the findings revealed that several factors that affect the emergence and strength of the routes to psychological ownership of corporate sustainability, such as connection to one's own work, adequate know-how, and mandate, are currently lacking or insufficiently integrated into the perceived professional role of the interviewed MAs. However, the analyses also demonstrated that this situation is not necessarily permanent, and improvements are possible. Business partnering, in particular, emerges as a natural foundation for incorporating corporate sustainability into the work of MAs.

This study combined the views of psychological ownership with the professional role of MAs; this approach provided new theoretical and methodological insights into how MAs as individuals may become more engaged in corporate sustainability. From a practical viewpoint, the study should help managers to understand how the routes to psychological ownership could be cultivated in the development of the work role of MAs to encourage their involvement in advancing corporate sustainability. It also provided input for management accounting professional organizations and management accounting professional education providers regarding how to support effectively the conditions that foster sustainability thinking among MAs.

5.3 "Getting your hands dirty" – Implications on psychological ownership of corporate sustainability when implementing sustainability perspectives in own work (essay III)

This study built on essay I, which indicated that concrete linkages between sustainability and an employee's own work could be a central contributor to the development of psychological ownership of corporate sustainability and, consequently, contribute to employees' engagement in corporate sustainability. It further elaborated on the process of engagement by examining how incorporating sustainability-related tasks into everyday work through participation in an environmental accounting project affects employee engagement in corporate sustainability. Environmental accounting refers to the tools, techniques, and

practices that provide corporations with the means to define, measure, and report their environmental impacts both internally and externally (e.g., Laine et al., 2021). This study took a new perspective on environmental accounting while it considered the potential instrumental value of environmental accounting in engaging employees in corporate sustainability.

This study drew on an empirical case study with a qualitative, interpretative research approach and the psychological ownership theory as the focus driver. An MNEs' environmental accounting project, that is, a cross-national team with participants from seven European countries, provided the basis for the study. I conducted the study by observing participants for 1 year, by interviewing 18 members of the cross-national team, and by utilizing the sustainability reports for 2021 and 2022 and the websites of the MNE as information sources.

The study presented empirical evidence that adding sustainability-related tasks to one's own work stimulates the routes of psychological ownership of corporate sustainability, although the impacts are nuanced. The findings showed the relevance of job design and demonstrated how concretizing tools of environmental accounting can assist individuals in addressing the perceived ambiguity surrounding corporate sustainability. In addition, organizational interest, along with support from management, is a crucial factor enabling individuals to engage in corporate sustainability within their work. The presence of a supportive collegial group for sharing experiences and openly discussing thoughts proved particularly empowering. Moreover, the findings indicated that developing psychological ownership of corporate sustainability may also equip the employees to accept and manage better the contradictory characteristics of corporate sustainability.

Notably, psychological ownership of corporate sustainability is likely to emerge/increase regardless of whether an individual is already committed to sustainability. However, the findings also indicated contradictory effects on the development of psychological ownership stemming from different individual-level expectations and experiences of organizational and management support.

This empirical case study presented evidence that adding sustainability aspects through environmental accounting to personal work stimulates the routes of psychological ownership of corporate sustainability. It offered novel theoretical and methodological insights into how individuals become engaged in promoting business sustainability and on how the processes influencing employee engagement in corporate sustainability can be developed. From a managerial standpoint, the study showed how job design impacts employee engagement and could be leveraged to support corporate sustainability transitions. Additionally, it

shed light on the consequences of individuals having varying maturity levels in their relation to corporate sustainability.

6 DISCUSSION AND CONCLUSIONS

Taking an interdisciplinary perspective, and by employing psychological ownership theory as a focus driver, this dissertation contributes, in addition to business sustainability and accounting research, to the literature streams of organization and organizational psychology. It provides new theoretical and methodological insights into the process by which individuals become engaged in promoting corporate sustainability—a key process in moving from goals to action for sustainable development. Notably, it sheds light on how this process can be developed. In the realm of accounting research, this dissertation adds to the literature on management accounting by integrating the concept of psychological ownership with the professional role of MAs. It offers insights into how individual MAs can become more involved in corporate sustainability. Furthermore, by showcasing the practical value of environmental accounting tools in motivating employees to promote corporate sustainability, this dissertation introduces novel aspects on the efficacy and utility of environmental accounting.

In this final section, the scientific and practical implications of this dissertation, together with study limitations and future research suggestions, are discussed in more detail.

6.1 The relevance of psychological ownership of corporate sustainability in engaging employees

The structured framework of psychological ownership theory provided new insights into the process of how individuals may become engaged in enhancing business sustainability. The three empirical studies in an MNE context supported the explanatory power of psychological ownership theory in the development of individuals' sustainability thinking through three routes. In essay I, three major categories of factors—related to the complexity of sustainability, organizational culture and operations, and views on stakeholder influence—that impact the development of psychological ownership of corporate sustainability at the individual level could be distinguished. Distinctive to all categories, the factors can have a contradictory effect, that is, both strengthening and hindering the route(s) to psychological ownership of corporate sustainability. These findings align with the results reported by Hejjas et al. (2019), revealing shared drivers that influence both employee sustainability engagement and disengagement. Moreover, while it is important to acknowledge this contradictory phenomenon in the management of an MNE sustainability transition, the findings go beyond merely identifying

impacting factors. They also offer new insights into how individual-level engagement can be effectively addressed to enhance corporate sustainability.

For the development of psychological ownership of corporate sustainability within the MNE context, the findings underscore the significance of granting employees the authority to contribute actively to sustainability initiatives and to participate in related decision-making processes. Prior studies have proposed that individuals are more likely to embrace psychological ownership when they play an active role, where decisions become distinctly “theirs,” and they perceive themselves as the primary cause (Jussila et al., 2015). Thus, MNEs can stimulate control and psychological ownership at the local business unit level by explicitly delegating managers with the mandate to lead the sustainability transition and to execute that mandate. However, the findings show that the mandate alone may not be sufficient for cultivating strong psychological ownership of corporate sustainability. While mandates serve as a precondition for promoting psychological ownership, there are multiple avenues to strengthen the different routes to psychological ownership, all of which require support. Essay I includes a summarizing table (Table 2.) that recaps how different factors may both strengthen and hinder the emergence of psychological ownership of corporate sustainability at the individual level.

The findings of essay I suggest that corporate sustainability linkages to employees’ own work is a central factor in developing their psychological ownership of corporate sustainability. Essay III provides empirical evidence. It shows that adding sustainability aspects through environmental accounting to personal work stimulates the routes of psychological ownership of corporate sustainability, regardless of whether the individual has a sustainability ambassador or non-ambassador background. Adding a novel aspect to the discussion of the usefulness and effectiveness of environmental accounting (see Bebbington et al., 2023; Deegan, 2017; Garcia-Torea, et al., 2023), the findings demonstrate the instrumental value of environmental accounting tools in engaging employees in promoting corporate sustainability. The tools offer a very concrete and numerical approach to corporate sustainability, which clearly appealed to the participants. In particular, LCAs support a scientific approach when aiming for more sustainable environmental outcomes. Quantification helps individuals to understand and appraise corporate activities and environmental achievements (Jones, 2010). In addition, because of its concretising nature, environmental accounting can help to reduce the perceived ambiguity related to corporate sustainability, and stimulate the routes of psychological ownership for corporate sustainability.

The emergence of psychological ownership of corporate sustainability will likely be a long and dynamic process (Pierce et al., 2003), and the intensity (Pierce et al.,

2001) and quality (Jussila et al., 2015) of the association with corporate sustainability will influence the outcome. The feeling of ownership is subject to changes in routes, the characteristics of objects and individuals, and the interaction between them, which can potentially diminish an existing sense of ownership (Pierce et al., 2003). For example, let's consider doubts regarding means and ends related to corporate sustainability (Bromley & Powell, 2012; Haack & Schoeneborn, 2015). The findings show that the uncertainty associated with the ambiguity of sustainability raises questions about businesses' ability to identify or influence underlying facts and causalities and thus address the actual sustainability issues. These uncertainties about means and ends likely limit the development of psychological ownership of corporate sustainability. However, ongoing knowledge growth introduces adaptability in defining "ends," opening up new avenues for the routes to psychological ownership and, consequently, sustainability (re)thinking.

Regarding psychological ownership theory, and the three routes involved, Süssenbach and Kamleitner (2018) proposed a distinction between active routes, control and self-investment, and the more passive route of developing deep knowledge. By following the active routes, individuals "do something" related to the object of ownership, while by following the passive route, they tend to "get something" from the object. Süssenbach and Kamleitner (2018) suggest that deep knowledge may offer a more comprehensive approach in an environmental context. However, the findings of essay I do not support the notion that developing deep knowledge is the prevailing route. Rather, the findings indicate that the route of investing the self, which affects the willingness to engage, is dominant. This may be explained through the sustainability transition being, in practice, a value-bounded process of change. To gain psychological ownership in this process requires active individual involvement.

6.2 MAs and corporate sustainability

An overall engaging corporate culture serves as a critical foundation for fostering and developing psychological ownership (Bhattacharya, 2019). Openness and transparency within such a culture empower employees to advance their ideas and to develop independent thinking regarding corporate sustainability, nurturing the route of investing the self (essay I). Despite an inclusive corporate culture, various functions within an MNE can hardly independently choose which sustainability management activities to undertake (Windolph et al., 2014). Rather, the corporate strategy driven by top management determines the extent to which functions engage in sustainability management (Egan & Tweedie, 2018; Windolph et al.,

2014). Järvenpää (2007) showed that while MNEs have the capacity to actively reshape the business partnering role of MAs to incorporate new aspects and activities (e.g., corporate sustainability) through, for example, supportive organizational structures, new accounting systems and innovations, and active training and career planning policies, these initiatives must be supported by the official corporate strategies and values.

Having a legitimate mandate is essential for a potential professional role change of MAs to become institutionalized at an organizational level (Goretzki et al., 2013), and for activating the three routes of psychological ownership at an individual level (essay I). Therefore, it is relevant to reflect on the reasons why sustainability-related aspects are typically not considered in the corporate MA role descriptions (essay II). One interpretation, supported by the findings, is that the business partnering role should be seen to automatically incorporate corporate sustainability when essential. The role is at the center, for example, of integrating sustainability aspects into risk assessment, scenario constructions, and various analyses. Another reason, also reflected in the findings, could be the novelty of MNEs defining and implementing comprehensive corporate sustainability strategies. The process of implementing such strategies across the organization is time-consuming, with amplified challenges due to organizational complexity. Consequently, the integration of corporate sustainability aspects into organizational structures and job roles may still be in its early stages. However, there may be a more profound reason: Corporations may not trust in the capabilities or interest of MAs to incorporate sustainability into their job roles (e.g., Egan, 2018). Our findings indicate that MAs face a lack of both a broader understanding of sustainability and practical know-how about sustainability, coupled with a perception of no pressure to enhance their knowledge in this domain. These concerning observations suggest a significant risk of MAs becoming detached from sustainable development concerns—a risk that should be recognized and acted upon by MA professional organizations and MA professional education providers.

Halari and Baric (2023) suggested that a lack of MA involvement in corporate sustainability activities, such as a circularity economy, arises from both perceived conceptual distinction between accounting and the nature of sustainability and from the persistently perceived stereotype of MAs being conservative, number crunching “bean-counters”. However, the findings from this dissertation, which also provide views from colleagues, indicate that the stereotypical views are mainly promoted by the MAs themselves and rarely by their colleagues. Rather, their colleagues want MAs to broaden their focus beyond financial aspects (see also Byrne & Pierce, 2018; Egan & Tweedie, 2018). Rieg (2018) found that MAs’

business partnering is influenced more by what their colleagues think is appropriate than by their own personal attitudes. Accordingly, the difference in views may provide an opportunity for MAs to overcome the limitations of being tightly bound to financial numbers.

In this vein, closely tied to the readiness to invest the self, a professional role change of MAs may also require a professional role identity change (Chreim et al., 2007; Goretzki et al., 2013; Horton & de Araujo Wanderley, 2018). Essentially, this involves altering how MAs integrate their perceptions of occupational interests, abilities, goals, motives, and values and how they align these aspects with acceptable career roles (Chreim et al., 2007). According to Järvinen (2009), the formation of professional role identity occurs through discursive processes where individuals validate their actions, achievements, and hopes regarding future development to both others and themselves. Therefore, the identity of MAs is shaped within a broad context through various interactions, including their perception of whether important individuals appreciate or oppose certain behaviors (Ala-Heikkilä & Järvenpää, 2023; Goretzki & Messner, 2019). While this dissertation did not show ongoing identity work among MAs regarding the incorporation of corporate sustainability, the findings suggest that MAs would likely meet organizational support rather than resistance in a potential shift in role identity toward sustainability. The colleagues of MAs typically viewed the implementation of corporate sustainability as a cross-functional task and expressed expectations of MAs' involvement in this initiative.

6.3 Tensions originating in corporate sustainability

At the corporate level, it is well known that sustainability involves tensions, trade-offs, paradoxes, and conflicts (Hahn et al., 2015; Schneider, 2020; Van der Byl & Slawinski, 2015; Wannags & Gold, 2020), which typically arise between present and future temporal contexts or from competition between economic elements and environmental and social elements (Slawinski & Bansal, 2012). At the individual level, tensions are usually caused by the corporation's short-term versus long-term orientation or differences between employees personal and an organizational sustainability agenda (Hahn et al., 2015, 2023). Such tensions may be reinforced even further through institutionalized professional thinking (Sabini & Alderman, 2021). Consequently, activities related to corporate sustainability are dependent on a dynamically occurring process involving interactions between competing logics, organizational/professional identities, and individual-level processes that are affected by, for example, participants being ambassadors versus non-ambassadors (Corbett et al., 2018).

Recent studies have suggested that it would be beneficial if tensions associated with corporate sustainability were accepted and different aspects of sustainability were promoted even if they appear to be contradictory (Gao & Bansal, 2013; Hahn et al., 2015; Pedersen et al., 2021; Santos et al., 2015). Tensions between multiple logics need not be treated as a compromise (Santos et al., 2015); rather, they can be seen as a source of transformative innovation and rethinking (Pedersen et al., 2021). Among the participants in the environmental accounting project (essay III), I could distinguish some acceptance of tensions. For example, related to doubts about the adequacy of actions and the timespan for obtaining results, the participants seemed to tackle their frustration by becoming, similarly to the notions of Carollo and Guerci (2018), “patient believers,” trusting that businesses will in the long run be able to respond to sustainability challenges. Moreover, when considering tensions relating to different levels of corporate sustainability awareness among members of the organization (Girschik, 2020; Hunoldt et al., 2020; Wright et al., 2012), the ambassadors seemed to accept potential tensions related to different levels of employees’ sustainability awareness rather than considering them as a burden. It was apparent that the ambassadors appreciated the opportunity to spread corporate sustainability awareness among the employees who were less familiar with the topic.

Considering MAs, a major obstacle for them to broaden their mindset toward sustainability thinking. The deeply and widely institutionalized mindset within accounting is to adopt the assumptions of standard economic theory at large, and it is taken for granted (Jones et al., 2010; Lukka & Becker, 2022). Moreover, determining sustainability indicators is subjective and political in nature, while MAs are traditionally associated with objectivity (e.g., Bebbington et al., 2007). Challenging this conventional thinking, corporate sustainability demands a broader perspective, necessitating a multidimensional interpretation and measurement of the intricate interactions among economic, social, and environmental factors, while also considering generational timeframes. The prevailing bias in accounting toward profit generation and its measurement poses a challenge for developing multidimensional metrics (Bebbington & Larrinaga, 2014; Contrafratto & Burns, 2013; Lukka & Becker, 2022). Also apparent in the findings of essay II, MAs have a strong tendency for quantified commensuration, overlooking many qualitative aspects of business operations and their role in society (Arora et al., 2022; Lukka & Becker, 2022).

It should also be noted that MAs are not the only professional group that is facing tensions that are originated in corporate sustainability (Carollo & Guerci, 2018; Hahn et al., 2015; Van der Byl & Slawinski 2015). Several professions are undergoing a significant change in how they integrate sustainability goals into

their roles and core values. Interestingly, project managers experienced quite similar tensions to MAs, such as organizational barriers and a lack of mandate, knowledge and institutional support, when requested to incorporate vague, sustainable development goals into their practices (Sabini & Alderman, 2021). In addition, the reactions of the project managers to the tensions are similar to those of MAs, that is, transferring responsibility to other professionals and doubting the necessity of project manager involvement (Sabini & Alderman, 2021).

However, according to Carollo and Guersi (2018), sustainability managers who have more experience and responsibilities related to corporate sustainability issues experience somewhat different tensions. Their challenges are often related to how they can effectively or satisfactorily carry out their work for sustainability: being business versus value oriented, being an organizational insider versus outsider, and having a short- versus long-term focus. Sustainability managers are also disturbed by the fact that the organization's overall capacity for sustainability thinking is at a different (lower) level than theirs (Girschik, 2020; Hunoldt et al., 2020; Wright et al., 2012).

Based on my research and the previous literature, psychological ownership of corporate sustainability seems to still be in its infancy among many professions within MNEs. However, the unique tensions encountered by ambassadors or sustainability managers reveal a different, close connection to corporate sustainability. Such a variation highlights how exposure to corporate sustainability-related issues, preferably for a longer time, strengthens the emergence of psychological ownership of corporate sustainability. Moreover, the developing attitudes toward corporate sustainability of the non-ambassadors participating in the environmental accounting project showed that embedding environmental accounting in personal work can provide an effective way for employees to become sensitized to the reasoning and relevance of corporate sustainability.

6.4 Practical implications

The findings of essay I showed that the inherent confusion in corporate sustainability is also present in the individual interpretations of the factors that impact the routes to psychological ownership of corporate sustainability. Accordingly, a single factor may act as a catalyst and a brake. When engaging employees, managers need to consider how to recognize and relate to the contradictory characteristics of the factors. The summarizing table (Table 2) presented in essay I provides managers with strategies to address this complexity

while outlining how different factors impact the emergence of psychological ownership of corporate sustainability.

Embedding corporate sustainability into job design provides good opportunities for such participation and concretization that help individuals to understand their own possible role in and impact on the sustainability transition. However, a sufficient level of perceived complexity and variation is required to effectively stimulate the routes of psychological ownership of corporate sustainability. Opportunities to approach corporate sustainability through one's own interests and expertise and to allow autonomous reflection are essential, as employees are driven to engage and disengage in unique ways. For some, concern about the state of the environment acts as an important driver, while for others, exercising leadership skills or solving technical issues may be a strong stimulator. Thus, embedding corporate sustainability requires a continuous adjustment to the perceptions and work situation of the employees in the organization (van der Heijden et al., 2012). As Bhattacharya et al. (2022, p. 977) highlighted, autonomy in sustainability issues becomes particularly important "as it allows employees to take the broad call to ethical action, and then enact in the ways they are best able to and best see fit."

Feelings of psychological ownership of corporate sustainability can be enhanced if the employees interpret that they have a license to act on forwarding sustainability. It is difficult for a single person or function to further sustainability issues significantly if these issues are not directly addressed by management. To engage employees in corporate sustainability, the MNE's management needs to focus on invitational and multifaceted communication and support sustainability-related collaboration, networking, and participation. Besides high- and mid-level management support and appreciation, an interest from the overall organization acts as an important enabler for individuals to engage in corporate sustainability topics through work. Especially empowering is having a collegial group for exchanging experiences and openly reflecting on thoughts (as well as doubts) regarding corporate sustainability issues. Moreover, the findings showed that an international project team has an important role in acting as a counterweight to different cultural, organizational, and individual maturity levels regarding corporate sustainability, thus empowering participants to commit to corporate sustainability issues

When considering MAs, professional education has a focal role in overcoming the present deficiency regarding the pursuit of improved sustainability knowledge and sustainability-related skills and competences (Halari & Baric, 2023; Schaltegger & Zvezdov, 2015). Including a stronger focus on sustainability in professional

education and providing topical sustainability-oriented conferences and training seminars would give a clear signal to MAs that sustainability knowledge is required in the future professional role of MAs and thus increase, in addition to their ability, their willingness to proactively invest time in sustainability topics. Hence, considering the development of psychological ownership, a more sustainability-oriented professional education may support both the route of developing deep knowledge and the route of investing one's self. Moreover, to activate the route of having control, intentional sustainability-oriented education can provide the necessary concretization of corporate sustainability when connections to daily work are still lacking (e.g., Lee et al., 2017).

In addition to MAs' professional education, MNEs' organizational knowledge sharing is highly valuable (Boyce et al., 2019; Caron & Fortin, 2014). The findings provided evidence that MAs themselves appreciate MNE internal training, particularly knowledge sharing through networks and cooperation, as the preferred means to improve personal sustainability know-how. Providing opportunities to participate in sustainability-related activities, for example, through piloting or benchmarking, could be a powerful means to increase individuals' commitment to sustainability. In addition, MNE-wide job rotation may be a useful tool in MAs' professional change process (Järvenpää, 2007). In a sustainability context, in their literature review Chams and García-Blandón (2019) found that both "green" training and job rotation addressed by human resource management are essential tools to generate sustainability competencies. While information alone may not be adequate to create a feeling of ownership (Pierce et al., 2001), training combined with job rotation both concretizes and increases the intensity of the association and thus influences the outcome. Moreover, a project set-up, as demonstrated in essay III, can offer opportunities to combine multifaceted ways of reshaping job design. Simultaneously, a diverse group with a common task could provide a fruitful basis for developing personal corporate sustainability commitment.

Finally, it is important to notice that the inherent complexity in corporate sustainability will not disappear despite developing psychological ownership of it. The ability of employees to respond to or manage corporate sustainability-related tensions and to engage in controversial corporate sustainability initiatives depends on the interplay between the type of tension that they perceive, their cognition, and their organizational location (Hahn et al., 2023). However, this dissertation indicates that developing psychological ownership of corporate sustainability may also equip the employees with the ability to accept and manage better the contradictory characteristics of corporate sustainability.

6.5 Limitations and future research avenues

I acknowledge the potential empirical limitations of this research. It was conducted as three qualitative, interpretive (Ahrens & Dent, 1998; Parker, 2012; Vaivio, 2008), and abductive (Lukka, 2014; Lukka & Modell, 2010) studies, including participant observations and a total of 50 interviews carried out in MNE units. According to Lukka and Modell (2010), validation in interpretative studies can be seen as an issue of convincing readers of the authenticity of the research findings while simultaneously ensuring that the explanations are plausible. I believe that, in my account, with rich and thick empirical data combined with careful theoretical analysis using psychological ownership theory as a method theory (Lukka & Vinnari, 2014), I was able to reach both authenticity and plausibility in the interpretation.

Although this dissertation provides valuable lessons for practice, we should be careful about overly generalizing the results. Thus, to gain an even better understanding of the development of employee engagement in corporate sustainability, future research, both qualitative and quantitative, on the effects of various contextual factors, such as the company size, industry, and organizational culture and structures, would be beneficial. For example, the job role of MAs may differ significantly in small- and medium-sized companies. Moreover, while the technology industry is often involved in solving sustainability-related problems, sustainability is probably not as politicized as it is in some other industries, for example, agriculture or the oil industry. Thus, other industries may deliver additional insights regarding the development of psychological ownership of corporate sustainability. Furthermore, building on the research approach I utilized in essay III, it could be of interest to investigate various practical means and ways for stimulating psychological ownership routes and to examine their effects on enhancing employee engagement in sustainability initiatives. Finally, while individual values, preferences, and backgrounds play a role in the emergence of psychological ownership, future research should explore these impacts further in the corporate sustainability context.

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The original essays and author responsibilities

The three essays that are part of this dissertation are presented in this section in their original format. Of the three essays, essays I and II have multiple authors, while I am the sole author of essay III. I was the lead author of essays I and II. My responsibilities included defining the research design, gathering the various empirical materials, conducting the interviews, performing data analysis, and identifying the key findings. In essay I, Merja Lähdesmäki brought her theoretical expertise to the interpretation of the data, and contributed by commenting and modifying the text, thus improving the quality of the essay. In essay II, Marko Järvenpää participated in refining the idea of the essay, commenting on the text, and bringing his experience and expertise to the interpretation of the data.



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Cultivating Sustainability Thinkers: Analyzing the Routes to Psychological Ownership in Local Business Units of Multinational Enterprises (MNEs)

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Abstract

Although present research shows that ambitious corporate sustainability objectives improve employee engagement in business organizations, there is scarcity of research showing how employees engage in corporate sustainability objectives and become autonomous sustainability thinkers. We suggest that a strong, individual level of psychological ownership of corporate sustainability is a precondition for the development of sustainability thinking, and examine the factors that influence the emergence of such feelings of ownership. Our qualitative study, based on 29 interviews conducted in seven Finnish local business units from three different technology-oriented multinational enterprises (MNEs), shows that several key factors can have contradictory effects, both strengthening and hindering the routes to psychological ownership of corporate sustainability. While these contradictory effects may potentially lead to confusion among employees, our findings may help managers to avoid pitfalls in developing a more sustainability-oriented

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organizational culture. Moreover, by applying the theory of psychological ownership, our study contributes to the business sustainability research by providing new theoretical opportunities to understand the process of how individuals may become engaged in enhancing business sustainability.

Keywords

corporate sustainability, individual level, local business units of MNEs, psychological ownership, sustainability thinking

Despite the widespread awareness of current social and environmental crises, activities promoting sustainable transformation remain modest (Accenture, 2019; Folke et al., 2019; Sachs et al., 2021). Thus, the need for corporates to seriously address sustainability has become increasingly important. Businesses are expected to meet the needs of their indirect and direct stakeholders, both current and future (Dyllick & Hockerts, 2002), through actions, such as cleaner production, contributions to society, and economic development (Ike et al., 2019). To better respond to these expectations, the majority of multinational enterprises (MNEs)—which are often seen as either the saviors or pariahs of businesses' social and environmental impacts (Burritt et al., 2020)—have included sustainable development goals (SDGs) in their agendas and integrated financial and sustainability-related non-financial data in their annual reports (KPMG, 2020). However, additional integrated reporting has not necessarily increased businesses' sustainable behavior (Deegan, 2017; Milne & Gray, 2013; Thomson, 2015). Growth and short-term profit targets continue to dominate, supported by quarterly financial reporting. This inability to consider the long-term value of sustainability is likely to undermine the possibilities for introducing more sustainable business practices (Bansal & DesJardine, 2014; Slawinski et al., 2017).

Previous research has suggested that in order for an MNE to willingly integrate corporate sustainability into the sustainability practices throughout the organization, different levels of formal and informal authority need to be allocated to managers both at headquarters and in the local business units (Arenas & Ayuso, 2016; Burritt et al., 2020; Husted & Allen, 2006). However, Bondy and Starkey (2014) found that, in contrast with the spirit of local responsiveness embedded in sustainability thinking, global–local integrated internationalization strategies tend to mirror headquarters' global strategies and marginalize local issues. Similarly, Barkemeyer and Figge (2014) used the concept of the “headquartering effect” to refer to developments in which

sustainability-related strategic decision-making focuses primarily on MNE headquarters, while the perspectives of local subsidiaries become increasingly restricted over time (see also Ike et al., 2021). As a response to these concerns, Liou and Rao-Nicholson (2021), for example, have suggested that MNEs need to link their subsidiary (local business unit) identities with the United Nations' (UN) SDGs to integrate unique local perspectives in their sustainability agendas and thus allow for better acknowledgment and consolidation of both parent and local stakeholders' demands. These studies indicate, that to broaden our understanding of corporate sustainability transitions, there is a need for research that explicitly focuses on how local business units perceive corporate sustainability (see also Burritt et al., 2020; Jamali et al., 2020). For example, adopting a local viewpoint on the implementation of corporate sustainability strategies, Engert and Baumgartner (2016) identified two focal factors, namely employee motivation and internal communication that have been largely ignored in the studies on implementation of corporate sustainability strategies.

Although employees are expected to contribute to the design and practice of corporate sustainability, implementation of sustainability has primarily been studied at the organizational level (Aguinis & Glavas, 2012; Glavas, 2016). Only recent business sustainability research has broadened the agenda by including the individual level into the analyses (Gond et al., 2017), but studies have typically addressed the influence of corporate sustainability objectives on employee outcomes (e.g., employee engagement in business organization and job satisfaction) including related mediators and moderators (Glavas, 2016). Empirical studies focusing on the engagement of employees in corporate sustainability objectives are rare (however, see Hejjas et al., 2019) and little theoretical and conceptual attention has been paid on the processes of how individuals become engaged in corporate sustainability (apart from a few exceptions, such as Bhattacharya, 2019; de Roeck & Maon, 2018) which is critical for designing management implications. To address this gap, we will in this empirical study move beyond the MNE global-level sustainability strategies and, using the theory of psychological ownership, focus on factors that influence the sustainability engagement of individuals within their local business units.

We suggest that to initiate positive change and to enable genuine sustainable development, we need to better understand how people in local business units might contribute to sustainability thinking in the context of MNEs. Inspired by Porter and Derry (2012), we define sustainability thinking within a business organization as sense-making concerning sustainability issues. Sustainability thinking focuses on understanding the needs and benefits of

sustainable business and seeks creative solutions for sustainability problems. In short, sustainability thinking is reflecting from a sustainability perspective and with an innovative mind-set upon “what we do?,” “how we do?,” and “why we do?”

We argue that a precondition for the development of sustainability thinking is that individuals can feel corporate sustainability as their own. Therefore, to examine how individuals in local business units can become more engaged in sustainability issues and, consequently, develop their own sustainability thinking, we adopt the theoretical discussion of psychological ownership. Psychological ownership refers to the state in which individuals feel as though the target, whether material or immaterial, or a piece of it is “theirs” (Pierce et al., 2001, p. 299). This theory has been widely utilized in management research focusing on both organization-based and job-based settings (Dawkins et al., 2017). It has been used to study, for example, workplace motives, attitudes, behaviors (Liu et al., 2012; Pierce et al., 2009; Van Dyne & Pierce, 2004), leadership styles (Avey et al., 2012; Park et al., 2013), and the provision of manager and employee autonomy (Henssen et al., 2014). Even though the psychological ownership construct can be easily linked to sustainability, the theory has been largely overlooked by sustainability researchers. Only recently have Bhattacharya (2019) and Süssenbach and Kamleitner (2018) conceptually linked psychological ownership to the field of sustainability, and there are few empirical studies (however, see the quantitative study by Chang et al., 2020). Accordingly, we ask:

What factors strengthen or hinder the development of psychological ownership of corporate sustainability at the individual level in local business units in an MNE context?

Our study contributes to business sustainability research by providing the theoretical view of psychological ownership which helps to understand the process of how individuals in local business units can become more engaged in corporate sustainability and, consequently, develop their own sustainability thinking. The present study also responds to the call to broaden the scope of theories utilized in business sustainability research, especially at the individual level (Aguinis & Glavas, 2012; Frynas & Yamahaki, 2016). Our study further demonstrates the contradictory elements in the factors that impact the emergence of psychological ownership of corporate sustainability. From a managerial standpoint, our study also identifies how the routes to psychological ownership can be cultivated to support the sustainability transition of local business units.

Our article is structured as follows. We first introduce the theory of psychological ownership and establish its link to the emergence of sustainability

thinking. Second, we describe our procedures for the identifying and coding of the data. Third, in the findings, we describe the factors and link them to the routes of psychological ownership. Finally, in the discussion, we elaborate the theoretical contributions and practical implications of our findings.

Psychological Ownership as a Precondition for Sustainability Thinking

In the corporate context, sustainability is often referred to as a company's continuing commitment to integrate ecological, social, and economic concerns into its business operations and its interactions with stakeholders (Hahn et al., 2014; Schaltegger et al., 2016; van Marrewijk, 2003). Hence, corporate sustainability criteria are only met when the entire company is organized in a sustainable manner (Meuer et al., 2020). Following the integrative view, corporates need to accept and embrace the tensions inherent in corporate sustainability and acknowledge the need to combine different desirable but seemingly incompatible sustainability aspects without emphasizing one aspect over others (Hahn et al., 2015). The challenge for corporates is to understand how sustainability is socially constructed in a specific context and how to take this into account when business strategies and operations are developed (Dahlsrud, 2008) and communicated (Winkler et al., 2020).

To become embedded in an organization, sustainability needs to be included in the organization's strategy and be part of its daily routines and operations (Glavas, 2016). In this setting, organizational psychology research provides the required bridging element to complement the macro-orientation with micro viewpoints (Aguinis et al., 2011; Glavas, 2016). Psychological ownership theory provides a promising and well-structured framework through which the transition of business practices toward sustainability can be described and understood in an organizational context. Furthermore, it offers a practical management approach to engage individuals in the development of sustainability thinking, and consequently, enhance the sustainability of all business activities.

The Theory of Psychological Ownership

The core of psychological ownership entails a feeling of possessiveness and a sense of being psychologically tied to an object (Pierce et al., 2001, p. 299). Conceptually, Pierce et al. (2001, 2003) defined psychological ownership as the state in which individuals feel as though the target of ownership or a piece of that target is "theirs" (i.e., "It is mine!"). They also argued that psychological ownership incorporates both affective and cognitive elements. As expressed

by Etzioni (1991, p. 466), ownership is a “dual creation, part attitude, part object, part in the mind, part real.” Psychological ownership differs notably from legal ownership, even if they are possibly related (Pierce et al., 2003). While legal ownership is typically recognized by others and sustained by the legal system, psychological ownership is acknowledged principally by the individuals having a feeling of ownership. Although often connected to person–object relations, feelings of ownership can also be directed toward other people or immaterial objects, such as ideas, words, artistic creations (Pierce et al., 2003), groups, organizations, work, and jobs (Van Dyne & Pierce, 2004).

Pierce et al. (2001, 2003) suggested three fundamental human motives as the primary cause of psychological ownership: (a) efficacy and effectance, (b) self-identity, and (c) a sense of place (belongingness). *Efficacy* as a motive reflects the basic human need to feel capable in a given domain (Bandura, 1977). The desire to experience causal efficacy, that is, to shape and control the environment, generates attempts to take possession and leads to the emergence of ownership feelings (Pierce et al., 2003). *Self-identity* as a motive is about how we define ourselves. Individuals establish, maintain, and transform their sense of identity through interactions with possessions and by reflecting upon their meaning (Dittmar, 1992). The feeling of ownership creates a bond between an object and a person. Because of this bond, everything that affects the object also to some extent affects the owner (Kamleitner, 2014). *Sense of place (belonging)* has been considered a central human need and has been linked to feelings of ownership by a number of scholars (Duncan, 1981; Pierce et al., 2001, 2003; Porteous, 1976). Feelings of psychological ownership originate from an object becoming a “home” or an individual’s own place (Pierce et al., 2001). In an organizational context, belongingness in terms of psychological ownership relates to being a member of a group or an organization, in which one’s social and socio-emotional needs are met (Avey et al., 2009).

Pierce et al. (2001) identified three major routes through which psychological ownership emerges: (a) having control over the object, (b) developing deep knowledge of the object, and (c) investing the self in the object. The three routes to psychological ownership (as with the motives for psychological ownership) are distinct, complementary, and additive in nature (Pierce et al., 2003). Thus, any single route can result in a sense of ownership independent of the others, although multiple routes are likely to strengthen the feeling of ownership. In addition, the emergence of psychological ownership is likely to be a lengthy and dynamic process (Pierce et al., 2003).

The ability to control something most often leads to feelings of ownership toward it. The more control and power individuals exercise over an object,

the more they view it as an extension of themselves (Furby, 1978). The existence of control requires a degree of freedom or autonomy in relation to and in interaction with the object (Pierce et al., 2009). One aspect of control relates to the effects of participating in decision-making. While people are likely to embrace psychological ownership of decisions that they have been part of, (e.g., in relation to corporate sustainability), the decisions become “their decisions,” and they feel that they are “the cause” (Jussila et al., 2015). When individuals associate themselves with a particular object, and develop deep knowledge, feelings of ownership arise (Pierce et al., 2001). Furthermore, “the more information and better knowledge an individual has about the object, the deeper the relationship is between self and the object, and hence, the stronger the feeling of ownership is toward it” (Pierce et al., 2001, p. 301). It can be assumed that MNEs would provide local business units’ information related to, for example, their sustainability goals. While information alone may not be sufficient to create a sense of ownership, the intensity of the association influences the outcome (Pierce et al., 2001). A longer, wide-ranging association with corporate sustainability is likely to lead to a perception of deeper understanding of it and, as a result, to a sense of ownership of corporate sustainability. The investment of the self into an object allows individuals to see themselves reflected in the object and to feel that its existence is in part due to their efforts (Pierce et al., 2003, p. 93). Hence, the more time, effort, skills, and attention individuals devote to sustainability issues in their work, the stronger their sense of ownership of corporate sustainability.

A feeling of psychological ownership is typically connected to positive outcomes, for example, to enhanced self-esteem, an increased sense of responsibility, and citizenship behaviors with respect to the object (Pierce et al., 2003; Van Dyne & Pierce, 2004). However, it should be noted that under certain circumstances, a sense of ownership can also have potentially detrimental outcomes, such as harmful behavior caused by an individual’s unwillingness to share the object or because of a need to retain exclusive control over it (Pierce et al., 2003; Wang et al., 2019). Moreover, the feeling of responsibility may grow to become a crushing burden (Pierce et al., 2003).

Interplay Between Sustainability Thinking and Psychological Ownership

Bhattacharya (2019) recognized that the characteristics of sustainability make it a prime candidate for feelings of psychological ownership. He argued that sustainability provides people with opportunities to fulfill the three

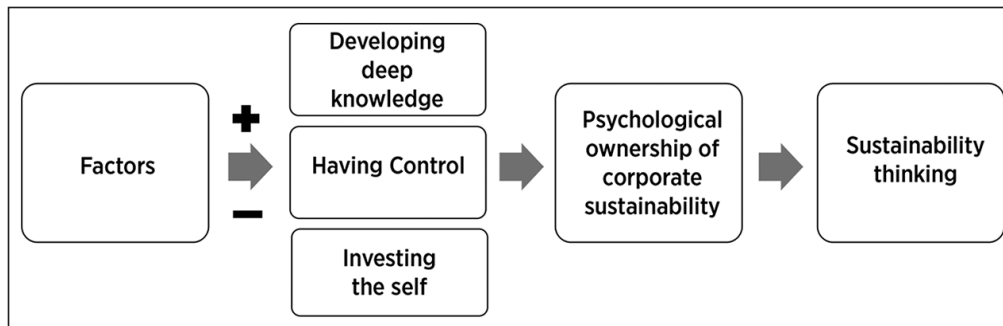


Figure 1. The process of the development of sustainability thinking through psychological ownership.

motives outlined by Pierce and colleagues: individuals can contribute to meaningful solutions with measurable effects, express personal values and identities through work, and to be part of something larger. The vast scope of the world's environmental and social problems may leave people with a feeling that they are ineffectual and unable to have an impact. However, taking ownership of sustainability can potentially induce positive actions and proactive attempts to shape the environment; that is, people are more likely to create solutions for sustainability problems (Bhattacharya, 2019).

Building on the routes to psychological ownership and translated into the context of sustainability, this notion implies that any perceived increase in control over actions that positively impact sustainability, any perceived increase in knowledge about sustainability issues and their related impacts, and any personal investment people make in improving sustainability may lead to an increased sense of ownership of sustainability. Consequently, in this study, we examine how sustainability thinking can be embedded in the MNE context by identifying the factors that influence the individual ownership of corporate sustainability in local business units through the different routes to psychological ownership (Figure 1).

Research Methodology

We adopted an interpretative research approach (Patton, 2002) to study the psychological ownership of corporate sustainability. Even though the theory of psychological ownership provided a guiding framework, we did not aim to test the theoretical concepts of psychological ownership; instead, we employed a more abductive approach to the analytical process. Accordingly, our analysis is based on the iterative dialogue between the empirical data and the existing theory (Timmermans & Tavory, 2012; Van Maanen et al., 2007).

Research Data

The data consist of 29 semi-structured interviews. The selection of the interviewees was based on the purposive sampling method (Patton, 2002) using criteria in two steps. First, all the interviewees worked in Finnish local business units of MNEs that operate within the technology industry and serve the energy and transport sector. By setting the first step criteria, we wanted to ensure a certain contextual congruence in our data. Thus, common for all the companies was that they can be regarded as generally responsive within the context of sustainability; they aim to find new solutions to enable further sustainable development and are included in focal sustainable development indices. They all report their sustainable development in accordance with the Global Reporting Initiative Standards that are aligned with the UN's SDGs. Furthermore, in Finland, as one of the Nordic welfare states, the governmental attitudes toward sustainable development are frequently positive and social awareness (and pressure) is rapidly increasing (Sachs et al., 2021). Therefore, it is reasonable to suggest that while enhancing sustainable development at the societal level, the relevant cultural aspects also reinforce sustainability thinking in the chosen local business units (Marano & Kostova, 2016). As a result, the present study was conducted in seven local Finnish business units that are part of three different MNEs. Second, the interviewees represented different managerial positions within the local business units (Table 1). By setting the second step criterion, we wanted to capture a wide range of perspectives relating to sustainability thinking at the managerial level. Thus, while all the interviewees were working in technology industry, we still aimed for variation and multiple insights.

We adopted these criteria to ensure informative but still manageable data. While the aim of this study was to gain a deeper understanding of the phenomenon and not to make sample-to-population generalizations (Englander, 2012), the set of interviewees was assessed through the credibility of the empirical qualitative data rather than representativeness (Englander, 2012; Kvale & Brinkmann, 2009 p. 113). Furthermore, to obtain an overview of each company's initiatives regarding their sustainability activities, the sustainability reports for 2019, the websites of the MNEs and, presentation material of the local business units were used as information sources.

Two pilot interviews were conducted in June 2020, and the subsequent interviews were carried out between August and December 2020. The original intention was to conduct live face-to-face interviews, but because of the COVID-19 pandemic, only six of the interviews were done face-to-face and the remaining interviews were completed via an online video connection using Zoom. The interviewees were conducted in either Finnish or English

Table I. Interviewees.

Distribution of the 29 interviewees	N
Profession/title	
Business unit manager	5
Admin; lawyer; HR manager; controller	9
Quality, health, safety, and environment manager	4
R&D or product manager	3
Sales and marketing or customer manager	3
Operations or procurement manager	2
Business developer	1
Process developer	1
Sustainability specialist	1
Gender	
Female	11
Male	18
Age	
< 35	3
35 to 45	7
46 to 55	15
> 55	4
Education	
Technology (BSc, MSc, Dr)	15
Economics (MBA, MSc)	12
Other (MSc)	2

and varied in length, ranging between 1 and 2 hours, with an average time of 1 hour and 15 minutes. With the interviewees' permission, all but one of the interviews were recorded and transcribed verbatim. With regards to the exception, written notes were taken because of a technical malfunction during the recording of the interview.

At the start of each interview, the interviewee was shown a picture of the UN SDG map to stimulate the conversation and to provide a common framework for the different aspects of sustainability. The interviews covered the following themes: the sustainability aspects present in the operations of the local business unit; the role of sustainability perspectives in the interviewee's own work and their own ability to promote sustainability; the perceived MNE global-level involvement; the enabling versus the hindering factors in improving sustainability; the methods for managing a sustainability transition; the consideration of sustainability aspects in private life versus work; the expectations regarding the local business unit's citizenship behavior; the

knowhow related to sustainability; the cooperation between functions; and the reporting and measuring of sustainability issues. These topics were openly discussed from the viewpoint of the interviewees' experiences and expectations. This approach allowed for rather flexible conversations to take place while still ensuring that all the interview themes and key issues were discussed with every interviewee (Legard et al., 2003).

Data Analysis

The interviews were analyzed following the established procedures for qualitative content analysis with three interlinking phases (Miles & Huberman, 1994). During the first phase, all of the interviews were carefully read, and open coding of the empirical material was initiated to condense the data. We searched for the factors influencing corporate sustainability in a local business unit context by paying particular attention to how individuals perceived corporate sustainability and the ways in which it is communicated, how they described their own roles in regard to the corporate sustainability issues, and how they viewed the general sustainability-related trends. We then examined the coded text instances and grouped the codes into larger categories based on their content. Accordingly, we distinguished three different key categories based on the characteristics of the factors: (a) the complexity of sustainability (object related), (b) organizational culture and operations (internal related), and (c) views on stakeholder influence (external related). We then revisited our theoretical framework and analyzed each factor with regard to enablers and hinderers of the routes to psychological ownership of corporate sustainability.

To ensure the quality of the results and the credibility of the research, we, the two authors, analyzed and interpreted the data through close collaboration and iterative discussions (Patton, 2002). The first author has extensive work experience in MNEs, which supported the analysis and interpretation. The analytical process was facilitated by the Atlas.ti 9 Mac software. A number of interview citations are presented in the "Findings" section to increase the transparency of the data analysis and to facilitate the reader's evaluation of our interpretations.

Findings

In this section, we introduce in more detail the three identified key categories: (a) the complexity of sustainability, (b) organizational culture and operations, and (c) views on stakeholder influence. More specifically, in each category we present the factors influencing the three routes to psychological

ownership of corporate sustainability at the individual level. In addition, we discuss their contradictory nature; the factors that may simultaneously strengthen and hinder the routes to psychological ownership. In the end of this section, Table 2 summarizes the factors and their links to the various routes to the psychological ownership of corporate sustainability.

Inspired by or Lost in the Complexity of Sustainability

Every interviewee highlighted the complexity of sustainability. Previous studies (Brown et al., 2014) have noted that complexity increases psychological ownership. Our findings support this statement partly, while many interviewees saw solving the “wicked problems” related to corporate sustainability as stimulating. One of the interviewees (26) summarized this position by saying that for him, the ambiguousness of sustainability represents “absolutely an interesting challenge, full of opportunities.” Many interviewees found business potential in advancing sustainability as a driving force that provides numerous opportunities, such as cost savings, brand enhancement, improved competitiveness, and risk mitigation. If they can concentrate on such opportunities, striving for sustainability can be empowering, intensifying the route of investing the self. Moreover, the ambiguousness of sustainability may stimulate need to understand the big picture, that is, how everything is linked to sustainability. If materialized, the desire to deepen and broaden one’s knowledge of sustainability will strengthen the development of psychological ownership of corporate sustainability.

. . . the point when you realize that I don’t really know about this, it triggers the desire for knowledge and the need to broaden the understanding. (Interview 9)

However, in contrast to previous research, our findings indicate that the complexity of an object can also be detrimental to feelings of ownership. Many interviewees mentioned that the broad nature of sustainability and its numerous definitions can cause difficulty in determining the role of a business in advancing sustainability. Some interviewees were unsettled by the complexity, as they identified that it could lead to potential misjudgments and false conclusions when the underlying facts and causalities proved difficult to control.

The matter [sustainability] is somehow so broad that you can count in so many things—or count out [. . .] This involves a great risk, and who ensures that the calculations are properly done? (Interview 2)

The interviewees also perceived inherent contradictions in reconciling economic, environmental, and social sustainability demands, thus adding to the perception of complexity. Operating in unsustainable markets or the expectations of constant growth were given as examples of somewhat incompatible and paradoxical elements encountered when organizations strive for sustainability. Experiencing ambiguousness alongside contradictory elements may weaken the development of psychological ownership for corporate sustainability, as it negatively impacts all three routes to psychological ownership. In other words, corporate sustainability may be perceived as too difficult to control, too fragmented to develop deep knowledge, or too ambiguousness to invest the self.

The interviewees shared the need to find ways to deal with the complexity. While most perceived an understanding of the whole as essential, they also held important to cut the “elephant” into smaller pieces, it is, identifying the separate dimensions of sustainability. Thus, many noted that it would be advantageous to focus on areas of sustainability in which the local business unit could make a difference or exercise sufficient control. For example, the interviewees mentioned their limited opportunities to recognize and/or influence issues related to sustainability because global operations often involve lengthy value chains with suppliers and customers who operate in distant and diverse environments. To decrease their sense of powerlessness and gain a degree of control, they regarded it as necessary to limit their focus to the closest partners in the chain and to rely on them to take further responsibility. Considering the development of psychological ownership, such a focused sphere of influence would typically bolster the route of control.

While many noted that even small actions or innovations contribute to the effort to enhance sustainability, the interviewees also identified the importance of explicitly linking actions or innovations to their own work.

Certainly, the understanding will then [when linked] materialize on the individual level as well, so that it is not only haze and hype. (Interview 4)

The interviewees emphasized that taking part in sustainability efforts through, for example, piloting and benchmarking serve as powerful ways to actualize sustainability for individuals. Participation provides an opportunity to share knowledge and invest both time and expertise (i.e., investing the self in corporate sustainability). Thus, concreteness and linkage enable the individuals to understand their own role and impact in the sustainability transition.

Based on the interviewees’ accounts, the time span can be a difficult factor that adds to the tensions and complexity of corporate sustainability. Some interviewees saw the business potential of sustainability as being too far in

the future. This view of a remote future demonstrated a diminishing interest in the sustainability agenda, which in turn may prevent the activation of the route of investing the self. Furthermore, the interviewees broadly recognized that individuals tend to spend their time on operative tasks and issues that are current or focused on the very near future; in contrast sustainability-related actions typically require perseverance and long-term solutions.

But then for issues needing more long-range development, which typically also applies to these sustainability issues, there is not always enough time [. . .] the interpretation of what this [sustainability] means for us needs more thought and time. (Interview 5)

Short-term thinking is supported by the quartile economic expectations, which leads to the perception of a potential contradiction between sustainability aims and short-term profit targets. However, many interviewees acknowledged this as a given fact, viewing it more as a boundary condition that must be taken into consideration rather than an excuse for compromise. They wanted to view both profit and sustainability as imperative, and they typically felt that they had the power and means within the current framework to prioritize and balance their actions. Consequently, despite the potential contradictions, the routes of control and investing the self may be activated and thus strengthen the development of psychological ownership of corporate sustainability.

The interviewees experienced the progress of the sustainability transition thus far as slow, which they feared will undermine positive attitudes toward it. This fear was acknowledged, for example, by one of the interviewees (17), who identified in the sustainability transition a “lot of high-flown speeches and even greenwashing.” This type of distrust may potentially decrease the willingness of individuals to invest themselves in sustainability-related matters, even if they consider such matters important. On the other hand, the interviewees were certain that the sustainability transition would become more urgent in the future. While the speed of the transition was questioned, a form of crisis was considered as an effective means of stimulating sustainability-related thinking.

The most powerful driver is always a crisis. If a crisis raises the matter, it is quite clear. (Interview 5)

A sustainability-related crisis would likely intensify the focus on corporate sustainability and justify the time and skills spent on the issue. Accordingly, a crisis may favor the development of psychological ownership of corporate

sustainability through the route of investing the self, provided it does not provoke a sense of overwhelming burden.

Having a Mandate and the Means to Engage

An MNE's different global organizational levels and functions, hereinafter referred to as corporate, were seen to have a significant impact on grounding sustainability in the local business units. The interviewees highlighted the significance of an organizational culture that acknowledges corporate sustainability. They mentioned that an open and transparent culture encourages employees to discuss and participate in sustainability efforts. Furthermore, they recognized that sustainability needs to be embedded in the overall organizational culture in order for it to be present in all business activities. Embeddedness signals a strong mandate from corporate to act on behalf of sustainability; a clear corporate directive to advance sustainability provides an important foundation for further routes to psychological ownership in the local business units. Such mandates increase the ability of employees to take charge, have an influence, and invest their time and efforts. The interviewees typically felt that corporate had provided them a general mandate to drive the sustainability transition.

We have a mandate. In principle we are given only the sandbox, where we play and are allowed to—more and more—to take charge. [. . .] Or the focus areas are maybe directed, but then we are allowed to decide on how we reach the best result. (Interview 13)

The interviewees emphasized the importance of corporate strategy and its communication in further defining the corporate mandate through prioritization of the sustainability standards and targets. They described sustainability-related key performance indicators (KPIs) as clear and supportive signals of corporate's interests and commitment of sustainability and, accordingly, as a central tool for directing focus and giving license to act. KPIs were considered an instrument that could be utilized to bring people together and initiate sustainability discussions; they also help employees recognize the impact of their own actions from a sustainability perspective. Thus, KPIs can support a willingness to invest oneself in corporate sustainability. Similarly, the interviewees mentioned corporate-driven social sustainability programs, which were often related to health and safety, diversity, wellbeing, or integrity, as a significant means to engage local business units in corporate sustainability. While the social aspects of sustainability had largely been embedded in the local business units by the corporate-driven programs, the interviewees clearly regarded the programs as their own, indicating awakened psychological ownership.

I see that in a global enterprise, these kinds of issues are included in the way of thinking and into all these programs. That provides us a higher standard than what is possible in small local firms. And as it is our global standard, it is also our local standard. (Interview 20)

However, the interviewees expressed mixed feelings when discussing the strength of the corporate mandate, which may suppress the development of psychological ownership of corporate sustainability. The interviewees noted that the sustainability-related information provided by corporate was rather fragmented and did not necessarily materialize at the local level. Restrictive interference with resourcing, a lack of emphasis on sustainability in budgeting, and complex, hierarchal decision-making processes were provided as examples of issues that undermined the corporate mandate and, accordingly, hindered the willingness to invest the self. Moreover, the interviewees felt that organizational complexity led to the uncoordinated dissemination of sustainability-related information via multiple streams, leaving only a limited overview and a vague links to the local business unit's operations.

. . . at a corporate level, this is often like declarations—we do this, aim at this and that [. . .] but in our world, the concrete doing takes place in the units. (Interview 17)

Inconsistent corporate messages and engagement emerged in the discussions as disruptive phenomena. The interviewees mentioned the dominance of finance-related KPIs, which appeared to undermine the importance of sustainability. Accordingly, some identified the risk of sustainability-related targets being out of phase with other targets. For instance, even though corporate reportedly valued the sustainability transition and set sustainability-related targets and KPIs, sustainability-related issues other than health and safety were rarely discussed in operative business reviews or target-setting meetings. Similarly, potential local sustainability-related KPIs were seldom followed-up or jointly discussed. The interviewees felt that the weight of these KPIs prevented sustainability from being fully integrated into the operative levels.

Clearly, there are evident contradictions. On the one hand, there are speeches about more soft values and good things. However, in the project review only the euros matter. No one is interested in any explanations about greener choices or something. (Interview 26)

The experienced inconsistency in the corporate messages and engagement may hinder the development of psychological ownership of corporate

sustainability, as it leads to mistrust and reduces any inclinations to invest oneself in the issues.

While the mandate to act was considered as a precondition to the level of focus allocated to sustainability, the interviewees recognized additional concrete organizational building blocks for advancing sustainability. Incorporating sustainability aspects and considerations into operative processes (both local and global) was seen as a powerful means to support a sustainability transition. From the perspective of psychological ownership development, well-planned processes can emphasize the importance of sustainability and encourage individuals to broaden their sustainability-related knowledge. On the other hand, some processes, such as those with built-in checklists, may give the illusion that sustainability aspects have been considered. In such cases, the processes do not necessarily drive the acquisition of deeper knowledge of sustainability; instead, they merely suggest a straightforward way to act appropriately.

These matters do not proceed, and that is the problem, if they are set aside or at some upper level. How would that get down to the work? But it is part of the integrated business planning process, and when we are in the offering review, together, looking each other into the eye, and we say that let's do it this way, the engagement in the doing will evolve. (Interview 17)

Moreover, as acknowledged in the previous sub-section, the link between corporate sustainability and an individual's work tasks needs to be internalized to activate the routes of control and investing the self. Many interviewees considered the integration of sustainability indicators into employee performance appraisals as a beneficial means to create such a linkage. In addition, the interviewees emphasized the importance of corporate encouraging networking and collaboration between different units, functions, and experts. These corporate initiatives were seen to provide opportunities for knowledge sharing that could develop competence in sustainability thinking and thus enhance the route of developing deep knowledge.

The need for constant formal and informal communication via different forums at the local business unit level was addressed by the participants as an important but difficult means to advance the sustainability transition due to a great variety among individuals. To make it easier to relate to sustainability, the visibility of progress through localized KPIs, notable success stories, and concrete examples was perceived as useful. Resonating communication was described as reinforcing the identification of their own efforts in the progress toward sustainability, which is likely to strengthen the route of investing the self.

For our whole community, for ourselves, but especially for our personnel, subcontractors, and so forth [. . .] telling the story of our actions [. . .] what follows from our work [. . .] and through that finding a purpose for the work that is related to saving the world . . . (Interview 3)

Most interviewees viewed sustainability as a common topic that cannot be delegated to a single function or person. However, they also recognized the need to have a sustainability-supportive organizational structure at the local business unit level. While a well-established organizational structure helps to define responsibilities, clarify the division of labor, and cement actions, it simultaneously catalyzes the route of control at the individual level. Furthermore, many interviewees identified an advantage in having a “sustainability owner,” someone who understands the overall concept of sustainability and coordinates the related organizational program. For example, such an owner can support functions, coordinate collaboration, ensure an open and visible information flow, and help individuals in finding linkages and developing deeper understanding of sustainability. However, some interviewees saw sustainability knowledge as a skill maintained by few experts. Thus, employing a key sustainability person would seemingly strengthen the route of developing deep knowledge but also trigger a tendency to outsource ownership to the experts.

Occasionally, it feels that if someone in sales or product management gets a question related to these issues, they just quickly slip the mail forward. . . (Interview 12)

Stakeholders—Insourcing vs. Outsourcing Sustainability Thinking

Interviewees interpreted current public opinions and debates, EU economic stimulus plans, and the interests of investors as clear signals of the increasing role of sustainability-defining business, and providing legitimacy for a sustainability focus. This sense of legitimacy supports the development of psychological ownership, as it justifies investing the self in the relevant issues. Many interviewees noted that sustainability-related regulations, including national and international laws and standards set by, for example, the EU or the technology industry, constitute a significant external factor impacting the corporate sustainability transition. Most identified increasing regulations as an essential tool to successfully manage the complexity of sustainability, as it does not appear to be controlled by the market economy. Regulations support the development of psychological ownership in individuals by directing

sustainability thinking, by guiding the interpretation of sustainability, and by controlling and making concrete the expected actions.

In my opinion, it [sustainability] is best forwarded by standards or de facto established practices. If you by yourself start to control different things, you will, as noted, get too many players and too many details. (Interview 3)

The interviewees' discussions, however, also included indications that the primary purpose of regulations is not necessarily linked to advancing sustainability. Instead, the regulations may be evaluated from a marketing point of view, with a focus on how they impact competitiveness. Without visible linkages, regulations cannot directly strengthen psychological ownership of corporate sustainability. Moreover, regulations seem to have an outsourcing effect, as regulators were expected to take the responsibility for advancing the sustainability transition.

It is beneficial, with [standards] it will turn. I do not think we would be smart enough to think [ourselves]. (Interview 18)

The interviewees all acknowledged that because of the inherent commercial basis of business operations, the sustainability transition needs to be linked to the business and its actions. They frequently addressed the significance of their own business sector, the technological industry, in providing solutions to sustainability-related problems. The interviewees described their industry directing attention toward sustainability issues, and they explained that sustainability aspects are considered and actively discussed. This generated a feeling of participation in a larger operation and a sense of pride in their involvement.

We are participating in that business. During this last year, there have been ongoing big discussions on revolutionary solutions. The whole market round the world is discussing [this]. (Interview 26)

According to the interviewees, actors in the technology industry typically invest time and resources in advancing research and innovative thinking. When aimed at sustainability-related solutions, technology industry operations seem to offer a natural foundation for strengthening all three of the routes to psychological ownership of corporate sustainability: having control, developing deep knowledge, and investing the self. The more time, effort, and energy individuals may spend on corporate sustainability in their work, the stronger becomes their sense of ownership. On the other hand, some

interviews indicated that the technology-oriented mind-set may also limit the development of psychological ownership, as a strong focus on the technology behind the solutions may prevent an overall understanding of sustainability and its links to one's own business operations and doings.

Analogous with the technological industry, many interviewees suggested that Finnish society, and by extension Nordic society, also supports the sustainability transition. They viewed the Nordic countries as especially progressive in social matters, such as equality and access to education. Many interviewees regarded these social matters as fundamental and deeply internalized by individuals in the local business units, thus they provide a feeling of control and a safe base to further engage (i.e., invest the self). However, some interviewees also noted that participation in global business requires a good understanding of the varying circumstances around the world.

Most of the interviewees noted that customer demand for sustainability represents the most significant external pressures on businesses. Customer demand is easily relatable and makes the transition to greater sustainability more acceptable and understandable; that is, customer demand legitimizes investing the self in sustainability.

I feel that the pressure should come, and it is best when it comes, from the customer. In other words, it gets a higher priority when it comes from the customer. (Interview 27)

At its best, innovative thinking, such as seeking solutions and new opportunities for the business, stimulates all the routes to psychological ownership. For example, solving a customer's sustainability-related problem will likely lead to a search for new knowledge and an increased familiarity with different sustainability aspects. Simultaneously, the impact of one's own efforts becomes more tangible. However, an eagerness to do business by solving customers' sustainability problems may narrow the perspective, leaving, for example, less attention on the sustainability aspects of the own operations. Hence, the necessary broad-mindedness and deeper understanding of sustainability may not develop. This point also emerged in the discussions addressing the expectation that customers should be the initiators of sustainability-related issues, thus placing the responsibility for the sustainability transition on their shoulders.

It should not be the trigger that we wait until a large enough number of customers ask for it [. . .] we should at once start to drive the topic. (Interview 13)

The interviewees typically believed that advancing the sustainability transition increases employees' sense of meaningful work, indicating that it can

support individuals' need to express their personal values and identities through work, and to be part of a larger initiative. However, if their relationship to corporate sustainability remains remote, it may have a burdening effect on work. Moreover, possible generational differences were mentioned in interviewees' narratives concerning employees. Whereas, some interviewees stated that the interest in sustainability issues is significantly stronger among the younger generations, others considered such an argument reflecting stereotypical thinking. However, most acknowledged that the younger generations have been more aggressively exposed to sustainability issues, for example, in school and through the media, than is the case with the older generations. While the younger generations were strongly viewed as future employees, among the older employees they triggered a need to understand new and varying perspectives and needs. Consequently, older employees must devote more time and attention to sustainability issues in their work, which most likely strengthens the routes of investing the self and developing deep understanding.

. . . they preferably want to see that our generation, that we understand the concern and that we are involved so to say. That we do our best that we can pass down something that is sustainable. (Interview 23)

When speaking about sustainability, several interviewees spontaneously mentioned their own children or grandchildren. An obvious concern about future generations, reinforced by thoughts of one's own descendants, may open up avenues for the routes to psychological ownership among older employees when familiarizing themselves with new ideas and acknowledging their importance. At the same time, and similar to the case with regulators or customers, the interviewees described an outsourcing of the sustainability transition to younger generations.

Somehow, I see, and maybe naively believe or think, that the new generations have just different kinds of attitudes. (Interview 4)

Summary of Findings

We identified several factors that both strengthen and hinder the development of psychological ownership and presented them under three categories. First, the broad and complex nature of sustainability concept causes confusion because sustainability can simultaneously be fascinating, overly ambiguous, and even paradoxical. It is difficult to capture a complete overview of sustainability and link it to the constant stream of related and updated

information. Moreover, the extended time spans of sustainability issues add to the confusion, as it is challenging for individuals to relate to something that is far away in the future. Sustainability-related actions typically require perseverance and long-term solutions.

Second, MNE organizational factors impact the emergence of psychological ownership. The dynamics between corporate and the local business unit levels have a far-reaching influence. When setting and defining its vision, strategies, KPIs, standards, and procedures, corporate expresses the importance of the sustainability transition. Hence, it determines the level of autonomy and the mandate to act at the local business unit level. In addition, the dynamics within the local business units, such as, organizational culture, structures, and collaborations, have a strong impact. Our findings show that the signals from both corporate and local business unit levels can create confusion.

Third, the perceived stakeholder views (e.g., regulators, customers, employees) and stakeholder roles in the sustainability transition of the local business units play a considerable role in the development of psychological ownership. According to our findings, stakeholder views can frequently support the routes to psychological ownership. However, our findings also reveal a tendency to outsource responsibility for the sustainability transition to different stakeholders. Hence, even the view on stakeholders appears to have a confusing nuance that is similar to the other two categories.

In Table 2, we recap how different factors may both strengthen and hinder the emergence of psychological ownership of corporate sustainability at the individual level. We also recognize that depending on the factor, different routes tend to be more dominant, even if all three routes typically become activated when exposed to a factor for a longer time. For some factors, all routes can be very strong and may overlap.

Discussion

When linking the theory of psychological ownership to corporate sustainability, Bhattacharya (2019) recognized the need for understanding how psychological mechanisms can be influenced. Our empirical study supports the explanatory power of the theory of psychological ownership in the development of sustainability thinking through three routes. Thus, our study expands the theoretical perspective and provides conceptual tools for business sustainability research, particularly at the individual level. Accordingly, we distinguished three major categories of factors that impact the development of psychological ownership of corporate sustainability at the individual level. Distinctive to all categories, the factors can have a contradictory effect, that

Table 2. Factors and Related Main Routes. The Main Route or Routes Illustrated With the Corresponding Capital Letter: Control (C), Knowledge (K), Investing Oneself (I), Impacting Psychological Ownership (PO).

Category	Factors	Strengthening PO	Main routes	Hindering PO
Complexity of sustainability	Numerous definitions, ambiguousness, contradictory elements	Becoming excited by challenges	I	Becoming overwhelmed by the burden
		Seeing linkage to own doings	C, I	Having difficulties in relating
		Identifying separate sustainability dimensions	C	Becoming disturbed by the uncertainty
		Understanding the big picture	K	Having a fragmented view
	Timespan	Concentrating on opportunities	I	Becoming overwhelmed by the tensions
		Identifying business potential	I	Postponing to the future
		Being able to balance short/ long-term targets	C, I	Powerless in balancing short/ long-term targets
		Seeing progress in advancing sustainability	I	Seeing no progress in advancing sustainability
		Intensifying focus due to crisis	I	Becoming overwhelmed by the burden
Organizational culture and operations	Mandate	Experiencing engaging corporate culture	C, K, I	Experiencing closed and hierarchical corporate culture
		Experiencing a license to act	C, K, I	Experiencing the mandate as inconsistent or insufficient
		Detecting a resonating strategy; targets and KPIs	I	Missing a resonating strategy; targets missing or not followed
		Participating in corporate sustainability programs	I	Experiencing irrelevancy of corporate sustainability programs

(continued)

Table 2. (continued)

Category	Factors	Strengthening PO	Main routes	Hindering PO
Views on stakeholders' influences	Organizational building blocks	Participating in internal networking and cooperation	K	Experiencing silo effects
		Cognitively activating processes	K	Having a "checklist approach"; permitting outsourcing
		Linking with individual performance appraisals	C, I	Lacking a link with individual performance appraisals
		Resonating communication	I	Non-resonating communication
		Responsibilities supported by organizational structures	C	Unclear responsibilities
		Being supported by a sustainability expert	K	Lacking expert support; permitting outsourcing
		Regulators, investors	Experiencing legitimacy	C, I
	Actors in the industry sector	Stimulating innovation	C, K, I	Narrowing the focus
	Society	Providing a safe base	C, I	Providing an uncertain base
	Customers	Providing solutions to sustainability issues	C, K	Limiting the focus to customer needs
Employees	Meeting customer demands	I	Permitting outsourcing	
	Experiencing meaningfulness of work	I	Experiencing a burdening effect on work	
Future generations	Demonstrating a concern about future generations	K, I	Permitting outsourcing	

is, both strengthening and hindering the route/routes to psychological ownership of corporate sustainability. Our findings are in line with those of Hejjas et al. (2019), who identified some common drivers that affect both employee sustainability engagement and disengagement. Furthermore, while this contradictory phenomenon should be acknowledged in the management of an MNE sustainability transition, our findings move beyond identification of impacting factors and provide new insights in how individual-level engagement to enhance corporate sustainability may be addressed.

The Relevance of Psychological Ownership of Corporate Sustainability

In order for psychological ownership of corporate sustainability to develop in an MNE context, our findings highlight the need for employees to have license to work toward sustainability and participate in related decisions. Previous research has argued that people are likely to embrace psychological ownership of decisions when they have played an active role, that is, the decisions become “their decisions” and they feel that they are “the cause” (Jussila et al., 2015). Thus, by giving the managers of local business units, an explicit mandate to advance the sustainability transition and actually execute that mandate, MNEs can encourage them to take control and develop psychological ownership of corporate sustainability in their unit. Likewise, local business unit managers need to pass the mandate on to all of the employees in the units. However, our findings show that the mandate alone is presumably not sufficient to generate strong psychological ownership of corporate sustainability. While mandates can be considered as a precondition for promoting psychological ownership, we have demonstrated that there are numerous ways to strengthen the different routes to psychological ownership, with all requiring support.

Süssenbach and Kamleitner (2018) noted that while the routes of having control and investing oneself are active routes, the route of developing deep knowledge is more passive. By following the active routes, individuals “do something” related to the object of ownership, but when following the passive route, they tend to “get something” from the object. They suspect that developing deep knowledge may provide a more comprehensive approach in an environmental context. However, although knowledge seems to be central in the initial awakening of awareness and is often involved in the success of other routes, we did not determine that the route of deep knowledge is the prevailing path. Rather, our findings show that the route of investing the self, which impacts the willingness to engage, is dominant. While the sustainability

transition is in practice a value-bounded process of change, we suggest that to gain psychological ownership in this process, active individual involvement is required. This may explain the dominance of the route of investing the self.

The emergence of psychological ownership of corporate sustainability will likely be a long and dynamic process (Pierce et al., 2003), and the intensity (Pierce et al., 2001) and quality (Jussila et al., 2015) of the association to corporate sustainability influence the outcome. The feeling of ownership is exposed to changes in routes, the characteristics of objects and individuals, and the interaction between them, which can even dissipate an existing sense of ownership (Pierce et al., 2003). Thus, we suggest that a dynamic understanding of the process of the development of sustainability thinking through psychological ownership is crucial. For example, our findings show that the ambiguousness of sustainability creates uncertainty regarding how well businesses can in reality identify or impact the underlying facts and causalities and thus address the actual sustainability problems. Such doubts about means–ends decoupling (Bromley & Powell, 2012), that is, doubts concerning the effectiveness or suitability of the business methods employed to cope with the complexities of sustainability (Haack & Schoeneborn, 2015), presumably constrain the development of psychological ownership of corporate sustainability. However, even the “ends” become mobile via constant increase in knowledge, thereby facilitating new avenues for the routes to psychological ownership and, consequently, sustainability (re)thinking.

Within the emergent literature of sustainability communication, the question of the relationship between sustainability communication and practices has become a focal concern (Crane & Glozer, 2016). In our study, the essence of balanced reciprocal communication, at both a formal and informal level, is recognized as a central but a difficult component in the internalization of advancing sustainability. Winkler et al. (2020) suggested that to accomplish a committed corporate sustainability mind-set, rhetorical shifts toward inclusiveness in communication are necessary. They argued that a more inviting, attentive, and rearticulating rhetoric is required to promote individual responsibility toward advancing sustainability. This formative “talking the walk” view highlights how sustainability communication can become influential if appropriate methods are used to advance sustainability in corporate practices (Schoeneborn et al., 2020). This perspective resonates with our findings on the emergence of individual psychological ownership of corporate sustainability. Invitational, multifaceted communication encourages individuals to participate and allows for independent thought and a genuine exchange of ideas, all of which strengthen feelings of efficacy and belongingness. Simultaneously, our findings show, that inconsistency between

sustainability communication and practice is experienced as disruptive; thus, potentially undermining the development of psychological ownership. From the standpoint of developing a sense of psychological ownership, the needs regarding communication appear to be complementary and somewhat contractionary. On one hand, psychological ownership can be fostered by the “talking the walk” approach; on the other hand, a “walking the talk” approach may prevent mistrust and promote a willingness to invest oneself. This in the sense that sustainability communication also loops back on the sustainability practices that initiated the communication in the first place (Schoeneborn et al., 2020).

At the corporate level, it is well-known that sustainability involves tensions, trade-offs, paradoxes, and conflicts (Hahn et al., 2015; Schneider, 2020; Van der Byl & Slawinski, 2015; Wannags & Gold, 2020). Tensions typically exist between present and future temporal contexts or between the competing elements of economy, environment, and society (Slawinski & Bansal, 2012). Recent corporate sustainability studies have indicated that it would be beneficial if managers would accept the tensions in corporate sustainability and simultaneously pursue different sustainability aspects, even if they seem to be contradictory (Gao & Bansal, 2013; Hahn et al., 2015). This entails moving away from treating the tensions between the multiple logics as trade-offs (Santos et al., 2015) and instead viewing them as a source for transformational innovation and rethinking (Pedersen et al., 2021).

Interestingly, our study shows that the inherent confusion in corporate sustainability is also apparent in the individual interpretations of the factors that impact the routes to psychological ownership of corporate sustainability. Accordingly, the same factors that may strengthen the route/routes to psychological ownership of corporate sustainability may also hinder the route/routes. Our study clearly indicates that the routes to psychological ownership are more likely strengthened if individuals are able to advance their own ideas and develop autonomous thinking regarding corporate sustainability. That is, the emergence of psychological ownership is more passive if impacting factors are “exhaustively served,” and the effect on psychological ownership can even be negative if the “service” is experienced as imposed from above. In parallel with the acceptance of corporate sustainability tensions, we suggest that it is essential to recognize and acknowledge the ambivalence of elements in the emergence of individual psychological ownership. When accounting for such tensions, a more controlled approach would support the contradictory impacting factors in a positive way. Simultaneously, creative and autonomous sustainability thinking at the corporate level is fostered by psychological ownership of sustainability at the individual level.

What Managers Can do to Cultivate Sustainability Thinking

In the sustainability transition, MNE management has a critical role in establishing how sustainability is represented in the community, by stakeholders, and by the employees in local business units. To enhance the employees' ownership of corporate sustainability at the local business unit level, our study shows that MNE management should focus on invitational and multifaceted communication and support sustainability-related collaboration, networking, and participation, not only internally but also cross-sectionally. In addition, the local business units require substantial management efforts. As highlighted by our study, feelings of psychological ownership of corporate sustainability, can be enhanced if the local employees understand that they have a license to act on forwarding sustainability; they also need clear directives and prioritization to link sustainability to their daily work. It is difficult for a single person or function to significantly further sustainability issues if they are not directly addressed by management. Furthermore, while sustainability issues need cross-functional attention, support must come from the whole management team.

Pierce et al. (2009) argued, and Brown et al. (2014) empirically showed, that complex and enriched jobs promote the emergence of psychological ownership feelings for one's job. The complexity of sustainability and the creative thinking required to solve sustainability problems provide a considerable stimulus to the job. Hence, MNEs can simultaneously strengthen the organization and employees' psychological ownership of their jobs by encouraging sustainability thinking through, for example, organizational culture and climate, corporate goals and vision, attitudes of management, corporate policies and procedures, and job design. In an organizational work context, the sense of possession is markedly linked to work-related attitudes, which include commitment and satisfaction, organizational-based self-esteem, and behaviors related to performance and organizational citizenship (Avey et al., 2009; Peng & Pierce, 2015; Van Dyne & Pierce, 2004).

Furthermore, our study confirms that sustainability may provide employees (and other stakeholders) with a new sense of purpose in their work (Aguinis & Glavas, 2019; Bhattacharya, 2019). It is likely that valuable sustainability-related knowledge already exists in the local business units, and managers have the opportunity to recognize the expertise and the value of their employees. When presented with opportunities, suitable people will step forward to act as ambassadors in advancing the sustainability issues (Girschik, 2020). Simultaneously, these ambassadors need managerial support to counteract burdening tensions that may emerge because the overall organizational capability in sustainability thinking is not at the same level (Bansal, 2003; Hunoldt et al., 2020; Wannags & Gold, 2020).

Finally, both at the MNE global level and at the local business unit level, managers need to consider how to recognize and relate to the contradictory characteristics of the factors when advancing psychological ownership of corporate sustainability. While a single factor may act both as a catalyst and a brake, it is essential to find a balance; that is, to prevent the tendency to outsource, managers should not to serve “ready” solutions that are extensively predefined or simplified. The summary presented in Table 2 provides managers with strategies to address this complexity while outlining how different factors impact the emergence of psychological ownership of corporate sustainability.

Conclusion

This study contributed to the business sustainability research by utilizing the structured framework of the psychological ownership theory to provide new insights into how corporate sustainability is perceived at the individual level. We argued that the emergence of a sense of psychological ownership is an important precondition for individuals to become part of the sustainability transition effort and to develop into creative and autonomous sustainability thinkers. In the context of corporate sustainability, our study showed that the factors that impact the emergence of the routes to psychological ownership may have both strengthening and hindering effects and thus act in a contradictory manner. With this in mind, by encouraging individuals’ own reflection and effectively supporting the three different routes, employees from across all levels of a business can develop psychological ownership of corporate sustainability.

Our research has certain limitations. First, although it is known that individual values, preferences, and backgrounds play a role in the emergence of psychological ownership, this study did not address these impacts. Moreover, while the technology industry is often involved in solving sustainability-related problems, sustainability is probably not as politicized as it is in some other industries, for example, in agriculture or the oil industry. Thus, other industries may deliver additional insights into the development of psychological ownership of corporate sustainability. Similarly, Nordic society is considered progressive in terms of acknowledging sustainability issues and thus presumably provides a more solid foundation for the development of psychological ownership in the context of corporate sustainability.

Future research could broaden the understanding of the development of sustainability thinking by examining the impact of different contextual issues on the emergence of psychological ownership of corporate sustainability at the individual level. Moreover, it could be beneficial to study the roles of individuals in developing system-level expertise, for example through

cross-sector collaboration and networking outside their own organizations. This research would further identify how corporate sustainability is perceived at the individual level when working in a broader, collaborative environment, and it would also address how sustainability thinking can collectively develop. Finally, while our findings indicated that investing the self is a dominant route in an MNE sustainability context, it would be of interest to further explore the influence of this route and the possible relational dependencies.

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**Finding the Routes to Corporate Sustainability
in the Professional Role of Management Accountants**

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Abstract*Purpose*

Expectations regarding the participation of management accountants (MAs) in the promotion of sustainability of multinational enterprises (MNEs) have been poorly realised. This raises the question of whether MAs are invited to join in sustainability promotion or does sustainability not fit the professional role of MAs in terms of ability and willingness. We suggest that the development of individual-level engagement of corporate sustainability is required for MAs to start contributing to corporate sustainability.

Design/methodology/approach

We utilise the psychological ownership theory to investigate how MAs' professional role could develop to incorporate advancing sustainability. Our qualitative study is based on 32 interviews conducted in seven local business units of three different technology-oriented MNEs.

Findings

We show that MAs themselves tend to exclude corporate sustainability from their job role and see it rather as a subject of other functions. We reveal features connected to the current perceived professional role of MAs that may impede the development of psychological ownership of corporate sustainability, thus undermining their involvement in corporate sustainability enhancement.

Originality

From a managerial viewpoint, our study helps readers to understand how the routes to psychological ownership of corporate sustainability could be cultivated in the development of the future role of MAs. It also gives input for MA professional organisations and MA professional education providers to develop conditions that foster sustainability thinking among MAs. Moreover, by integrating the examination of MAs' professional role with the psychological ownership theory, we broaden the theoretical scene both in management accounting and in business sustainability research.

Keywords

Corporate sustainability; Management accountant; Professional role; Psychological ownership

1 Introduction

Sustainability has become a megatrend that strongly influences society, governments, markets and enterprises all over the globe. Businesses are expected to meet the needs of their indirect and direct stakeholders, both current and future (Dyllick and Hockerts, 2002), through actions aligned with the United Nations (UN) Sustainable Development Goals (SDGs), a set of 17 interrelated goals that articulate the desired outcomes of sustainable development (United Nations, 2015). To meet these expectations, the majority of multinational enterprises (MNEs) have included the SDGs in their agendas and integrated financial and sustainability-related nonfinancial data into their annual reports (KPMG, 2020). The call for sustainability changes the business context and the determinants of corporate success, which also have implications for the professions that support businesses. However, empirical surveys conducted among large companies show that the functions of accounting, management control and finance are less involved with sustainability management practices than other functions (Ballou *et al.*, 2012; Schaltegger and Zvezdov, 2015; Windolph *et al.*, 2014), despite the calls from the accounting profession for accountants to take a noteworthy role in embedding sustainability into organisational decision making and accounting and reporting processes (see, e.g., A4S, 2018).

There is common agreement that management accountants (MAs) need to be involved in advancing sustainability (Evans *et al.*, 2011; Gray and Collison, 2002; Gray *et al.*, 1993; Mathews, 1997; Schaltegger and Zvezdov, 2015). Within management accounting research, studies have shed light on how MAs could contribute to advancing sustainability. While Burritt and Schaltegger (2010) emphasised the opportunities to support management decision making, it has been suggested that MAs contribute by providing information and new accounting techniques to improve sustainability performance measures (e.g., Lambert and Sponem, 2012; Scarpellini *et al.*, 2020) and not limiting their contribution to playing a gate-keeping role between sustainability managers and higher management (Schaltegger and Zvezdov, 2015). Schaltegger (2018) suggested that MAs could further develop their role as coordinators and organisers of processes and system developments to integrate sustainability information with the overall measurement and information management system of the corporation. Additionally, with appropriate autonomy and obtained personal sustainability knowledge, MAs could develop into boundary spanners who share sustainability experience and strategic intent within an organisation (Johnstone, 2019).

At the same time, some researchers have presented doubts regarding whether MAs possess the required capabilities or interest in advancing sustainability (e.g. Bebbington and Larrinaga, 2014; Cooper, 1992; Gray *et al.*, 1995) to take on a role as a strategic business partner for sustainability (Egan, 2018; Egan and Tweedie, 2018; Schaltegger and Zvezdov, 2015). Egan and Tweedie (2018) found that MAs' professional habitus, and their need to maintain distinctive professional expertise, may impede their engagement in sustainability. However, they suggested that adequate recognition, time and supportive organisational engagement with other professionals can help to overcome such a professional dilemma of MAs. Accordingly, while sustainability requires individual-level engagement, what affects MAs' individual attitudes towards and relationship with advancing sustainability in a corporate context requires more research attention. Hence, it is of interest to investigate further how the perceptions of MAs' professional role affect MAs' willingness and ability to engage in sustainability issues and how the professional role of MAs could broaden towards deeper engagement in sustainability. Inspired by Bhattacharya (2019), who argued that individual-level engagement arises when individuals can feel corporate sustainability to be their own, we examine the perceived professional role of MAs and its congruence with sustainability enhancement through the lenses of psychological ownership theory. Psychological ownership refers to the state in which individuals feel as though the target, whether material or immaterial,

or a piece of it is “theirs” (Pierce *et al.*, 2001, p.299). With sustainability set as the target, the theory provides a structured framework at the individual level through which a possible transition of the MA role to incorporate sustainability can be understood. Accordingly, we ask in this study: *How could MAs’ perceived professional role support the development of psychological ownership of corporate sustainability at the individual level in an MNE context?*

With this study, we respond to the call to investigate how MAs could become more strongly involved in sustainability accounting and management (Egan and Tweedie, 2018; Schaltegger and Zvezdov, 2015). Accordingly, Gibassier (2021) highlighted the interest of examining the role of “sustainability accountants” as business partners to identify possible obstacles that MAs may face in becoming effective actors in the sustainability transition. Such a microlevel understanding is essential to facilitate transformational processes of the MA profession (Schaltegger *et al.*, 2022). Our study contributes to management accounting and business sustainability research by combining the views of psychological ownership with MAs’ professional role, providing insights into how MAs as individuals may become more engaged in corporate sustainability. From a managerial point of view, our study helps readers to understand how the routes to psychological ownership could be cultivated in the development of the work role of MAs to encourage their involvement in advancing MNE sustainability. It also gives input for MA professional organisations and MA accounting professional education providers regarding how to support effectively the conditions that foster sustainability thinking among MAs.

2 Theoretical Framework

In this section, we establish theoretically a link between the possible evolvement of MAs’ professional role to include sustainability-related tasks and the psychological ownership theory. We propose that the psychological ownership theory provides a structured framework within which the possible transfer of MAs’ professional role to include sustainability can be described. Furthermore, the established routes to psychological ownership offer a practical approach to engage individuals and professional teams as collectives to enhance sustainability in their work.

2.1 MAs’ Professional Role

Biddle (1979) defined a role as a set of expectations associated with a particular social position in a specific type of setting. This view incorporates the assumptions that persons are part of a social structure and have expectations regarding their own and others’ behaviours (Biddle, 1986). In an organisational context, each person is linked to other members based on the functional requirements of the organisation; thus, the role of each person is strongly shaped by shared expectations of the other organisation members (Katz and Kahn, 1978). The structurally positioned (professional) role is intertwined with the concept of role identity (Ashforth, 2000; Goretzki *et al.*, 2013). Ashforth (2000) defined role identity as the goals, values, beliefs, norms, interaction styles and time horizons that are typically linked to a role. While a role provides the boundaries for a person to interpret and make sense of themselves while occupying the role, role and identity develop in interaction (Ashforth, 2000; Chreim *et al.*, 2007; Ibarra, 1999).

Research on MAs’ professional role (e.g., Burns and Baldvinsdottir, 2005; Goretzki and Messner, 2019; Goretzki *et al.*, 2018a; Granlund and Lukka, 1998; Järvenpää, 2007; Lambert and Sponem, 2012; Sathe, 1983) has described developments from a traditional scorekeeper or “bean counter” role towards a more business-oriented business partner role. While scorekeepers typically engaged in gathering, analysing and preparing reports (Friedman and

Lyne, 1997) following a consultant or watchdog approach (Granlund and Lukka, 1998), business partners are seen more as an interface between corporate business operations and senior management (Goretzki *et al.*, 2018b; Schaltegger and Zvezdov, 2015) that contributes to the value creation, management and control of a business (e.g., Burns and Baldvinsdottir, 2005; Järvenpää, 2007). Accordingly, business partnering is typically related to organisational improvements regarding internal processes, decisions and efficiency (Wolf *et al.*, 2015).

In general, business orientation has been seen in the practitioner literature as a good thing as it is thought to add to MAs' value and standing within an organisation (Goretzki and Messner, 2019), and the role of business partner has been raised more or less to an ideal model role (Goretzki *et al.*, 2018b; Morales and Lambert, 2013). However, while the tasks of business partners have been described in the literature on a rather abstract, ambiguous level (Goretzki *et al.*, 2018b), considerable room has been left for interpretations of the contents of the role (e.g., Coad and Herbert, 2009; Morales and Lambert, 2013). Morales (2019) argued that, thus, nearly all management accountants whose views have been repeated in the accounting literature have seized the notion that they are or should become business partners, albeit offering contradictory understandings of what that means. Hence, MAs are driven to base their professional identity on an imagined, aspirational business partner role (Goretzki and Messner, 2019; Morales and Lambert, 2013).

Despite variations in the organisational context in countries and industries, MAs' role as business partners has gained ground in MNEs during the last decades (Goretzki *et al.*, 2018b). This has been greatly facilitated by decentralisation, which has located MAs close to operational managers and increased the interaction with the operative management and organisation (Burns and Baldvinsdottir, 2005; Byrne and Pierce, 2007; Granlund and Lukka, 1998; Järvenpää, 2007), and by standardised accounting or enterprise resource planning (ERP) systems (Caglio, 2003; Coad and Herbert, 2009; Järvenpää, 2007). As a result, MAs have gained experience and know-how that improve their business orientation. Simultaneously, MAs' role has typically not been limited to business partnering as they are continuously expected to have a somewhat contrasting functional orientation within corporate control (Goretzki *et al.*, 2018a; Lambert and Sponem, 2012; Maas and Matejka, 2009; Rieg, 2018). Consequently, while MAs also have the responsibility to participate actively with local managers in identifying profitable action strategies as well as the responsibility to conduct corporate compliance and control activities and provide information to functional managers, they are assumed to experience role conflicts (Hopper, 1980; Maas and Matejka, 2009).

The roles of MAs have continuously been reshaped through manifold developments, such as globalisation, customer-oriented markets with tough competition, digitalisation, standardisation and academisation of the profession (Goretzki and Strauss, 2018). While sustainability inevitably has become an essential element directing businesses, and considering the variety and expectations of the MA roles described in the literature, it could be presumed that MAs have the opportunity (and even obligation) to direct some of their attention to promoting sustainability-oriented processes and to contribute to the diffusion of sustainability accounting and reporting within the MNEs. The role of business partner incorporates expectations of MAs to be proactive and powerful actors that influence other organisational members' – including managers' – doings. Additionally, MAs' functional responsibility to conduct corporate compliance and control activities equips them with certain authority. However, previous studies have indicated that MAs' actual influential power is highly dependent on collegial managers' views on MAs and what they allow MAs to do (e.g., Morales and Lambert, 2013). MAs' endeavours to become more influential have not necessarily been straightforward; for example, the juxtaposition of MAs' abstract knowledge and the operative expertise of other organisational actors has resulted in competition and conflicts in the relations between the parties (Armstrong, 1985; Ezzamel and Burns, 2005; Vaivio, 1999). Moreover,

Järvenpää (2007) showed that the corporate culture considerably affects and shapes MAs' role in an organisational context; MAs typically belong to the management accounting function and their individual position and role are determined, to a large extent, by the positioning of the management accounting function within an organisation. Byrne and Pierce (2007) found that MNEs tend to follow a more imposed corporate model in determining the role of MAs; the roles appear to be more standardised, institutionalised and predefined in the business units of MNEs. In such a setup, MAs' capacity to reshape their own roles may be limited despite their own attitudes and initiatives.

2.2 The Theory of Psychological Ownership

Pierce *et al.* (2001, 2003) defined psychological ownership as the state in which individuals feel as though the target of ownership or a piece of that target is “theirs” (i.e., “It is mine!”). Psychological ownership incorporates the feeling of possessiveness and being mentally tied to an object (Pierce *et al.*, 2001). Furthermore, it relies on a cognitive and affective core that reflects an individual's awareness, thoughts and beliefs regarding the object of ownership (Pierce *et al.*, 2003). While psychological ownership is acknowledged principally by the individuals having the feeling of ownership, it differs considerably from legal ownership, which is sustained by a legal system and typically confirmed by external entities (Pierce *et al.*, 2003). Moreover, psychological ownership can be felt for physical objects as well as for other people or immaterial objects, such as ideas and words (Pierce *et al.*, 2003), design (Baxter *et al.*, 2015), groups, organisations, work or jobs (Van Dyne and Pierce, 2004), the environment (Süssenbach and Kamleitner, 2018; Ullah *et al.*, 2021) and sustainability (Bhattacharya, 2019; Kurki and Lähdesmäki, 2023).

According to Pierce *et al.* (2003), feelings of ownership allow individuals to fulfil three basic human motives: efficacy and effectance; self-identity; and a sense of place (belongingness). *Efficacy* as a motive reflects the basic human need to feel capable in a given domain (Bandura, 1977). People attempt to take possession because it allows a sense of effectance and control (Pierce *et al.*, 2003). *Self-identity* as a motive is about how people define themselves. Possessions help people to establish their sense of identity, express their self-identity to others and maintain the continuity of the self over time (Dittmar, 1992; Mead, 1934). *A sense of place (belonging)* is considered as a central human need that links to the feeling of ownership (e.g., Duncan, 1981; Pierce *et al.*, 2001, 2003; Porteous, 1976; Weil, 1952). Feelings of psychological ownership arise from an object becoming a “home” or an individual's own place (Pierce *et al.*, 2001) and providing a sense of familiarity, comfort and security (Duncan, 1981). Moreover, Pierce *et al.* (2001, 2003) suggested that these three motives are complementary and additive in nature. Thus, as long as a particular object stimulates and satisfies one or more of the three motives, individuals can develop a sense of ownership towards it.

Pierce *et al.* (2001) identified three major routes that give rise to the sense of ownership. A person can derive the sense of ownership through any one route or any combination of these three routes, although multiple routes are likely to strengthen the feeling of ownership (Pierce *et al.*, 2003). The first route is *having control over the object*; the more control and power one exercises over an object, the more one views it as an extension of oneself (Furby, 1978). The experience of control implies a degree of freedom or autonomy in relation to and in interaction with the object (Pierce *et al.*, 2009). For example, an opportunity to participate in decision making is likely to trigger psychological ownership of the decision as it becomes “my decision” and one feels oneself to be “the cause” (Jussila *et al.*, 2015). The second route is *developing deep knowledge about the object*; the more information and the better the understanding an individual obtains about an object, the deeper the association that evolves between the self and

the object and, hence, the stronger the feeling of ownership that develops towards it (Pierce *et al.*, 2001). The third route is *investing the self in the object*; this allows individuals to see themselves reflected in the object and to feel that its existence is in part due to their efforts (Pierce *et al.*, 2003, p. 93). Accordingly, such an investment can come from devoting one's skills, time, effort and creativity to the object.

Feelings of psychological ownership generate mostly favourable effects for the target object. For example, psychological ownership may positively affect individuals' attitudes towards the object (Jussila *et al.*, 2015) and their willingness to invest in it (Asatryan and Oh, 2008; Kamleitner and Feuchtl, 2015) and increase their sense of responsibility and citizenship behaviours towards it (Pierce *et al.*, 2003; Van Dyne and Pierce, 2004). However, under certain circumstances, it might also cause harmful behaviour – for instance, when an individual has a need to retain exclusive control over the object or is unwilling to share it with others (Pierce *et al.*, 2003; Wang *et al.*, 2019). Furthermore, the sense of responsibility might cause stress or even turn into an overwhelming burden for an individual (Pierce *et al.*, 2003).

2.3 *Linking Corporate Sustainability, Psychological Ownership and MAs' Professional Role*

Pierce *et al.* (2003) argued that object attributes affect the degree to which an object can satisfy the three founding motives and the extent to which the object enables or impedes the routes to ownership. Considering the attributes of corporate sustainability, it has excellent potential to stimulate psychological ownership. To meet the criteria of corporate sustainability, the entire company needs to be organised in a sustainable manner (Meuer *et al.*, 2020). Thus, nearly everything people do within the company can be undertaken with sustainability impacts in mind, supporting behaviours that are likely to satisfy the efficacy need (Kollmuss and Agyeman, 2002). Furthermore, while the feeling of ownership creates a bond between the object and the person, everything that affects the object also to some extent affects the owner (Kamleitner, 2014). Thus, when people act in favour of corporate sustainability, they are likely to favour themselves as well. In parallel, Bhattacharya (2019) suggested that advancing corporate sustainability provides people with a unique opportunity to meet their self-identity needs at and through work. Additionally, he noted that, by engaging in solving corporate sustainability issues, people have a chance to feel part of something larger, that is, "having a place".

While corporate sustainability has the qualities of an appropriate object for psychological ownership, the three routes towards psychological ownership of corporate sustainability become focal. The routes may be activated by any perceived increase in control over corporate actions that have a sustainability impact, any perceived addition to knowledge about sustainability issues and related corporate impacts, and any personal investment that people make in corporate sustainability improvements. Consequently, to understand how MAs' sustainability thinking in their professional role and work could be further evoked, we empirically examine how MAs' (perceived) professional role could support the development of psychological ownership of corporate sustainability at the individual level in an MNE context.

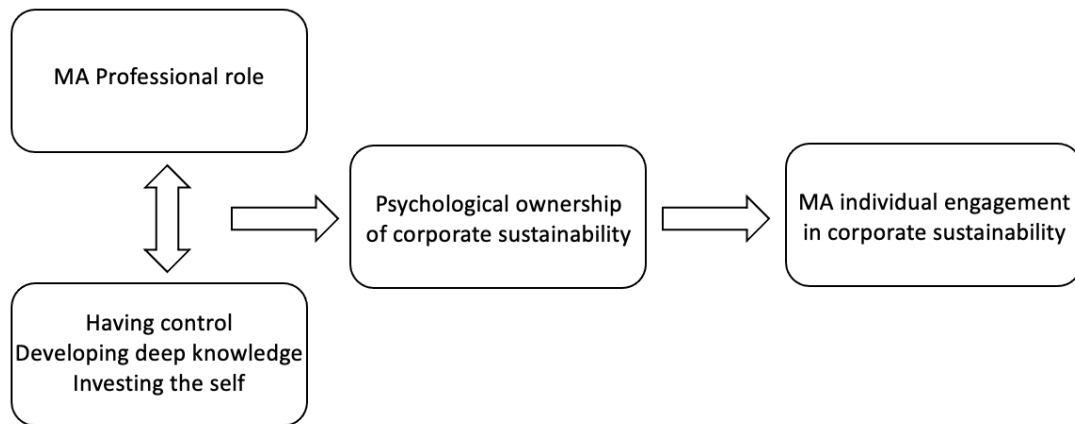


Figure 1. The process of MA individual level engagement in corporate sustainability through psychological ownership.

3 Research Methodology

An interpretative research approach was adopted (e.g., Ahrens and Dent, 1998; Parker, 2012; Vaivio, 2008) to gain an understanding of the impacts of MAs' perceived professional role on their engagement in corporate sustainability. The subject was examined from the viewpoint of both MAs and their colleagues from other professional groups. We employed an abductive approach (Lukka, 2014; Lukka and Modell, 2010) to the analysis process, where the professional role and the psychological ownership theory were in iterative dialogue with the empirical data (see Lukka and Modell, 2010; Timmermans and Tavory, 2012).

3.1 Research Data

The present study was conducted in seven local Finnish business units that are part of three different MNEs. However, we did not conduct a multiple case study (Yin, 2014) in the sense that the aim was not to compare different case settings or explore the differences between the MNEs case by case but to study MAs and other managers in an MNE context that was common to all the studied companies. MNEs all operate in the technology industry serving the energy and transportation sectors. They can be regarded as forerunners in the context of sustainability, and in their business, they aim to invent new products and solutions that enable sustainable development. They all base their sustainability strategy on the three pillars of sustainable development recognized by the UN – economic, social and environmental, and report their sustainable development in accordance with the Global Reporting Initiative Standards adapted to the UN's SDGs. Their sustainability targets are supported throughout the companies by management systems, tools and practices related to sustainability issues. In addition, a systematic approach is used, including measurement, reporting and external auditing of their sustainability performance. The MNEs assesses their sustainability risks on an annual basis. In Finland, governmental attitudes towards the needs of sustainable development are generally positive and social awareness is rapidly increasing (Sachs et al., 2021). Therefore, it is reasonable to suggest that, while enhancing sustainable development at the societal level, these cultural aspects in Finland also support sustainability enhancement in the chosen local business units (e.g., Marano and Kostova, 2016).

The data consisted of semi-structured interviews with 32 representatives of local business units (see Table 1). Of the interviewees, 10 were working as MAs, and, of these, seven

were also management team members. For a versatile picture of the MA's professional role, 20 interviewees were selected from members of the local management teams, representing various functions of the units. Management team members were chosen, as they work closely with MAs and were familiar with MA job roles. Also, two persons having specifically a sustainability-related role without a managerial position were interviewed for possible additional sustainability-related viewpoints, as no management team member had sustainability as specific/only responsibility area. However, sustainability was seen closely connected to the tasks of the management team members being Quality or/and Health, Safety & Environment managers. To ensure informative but still manageable data, the selection of interviewees was based on the purposive sampling method (e.g., Patton, 2002). Accordingly, we used three criteria in which the interviewees represent different managerial/functional positions, local business units and MNEs. The aim of this study was to gain a deeper understanding of the phenomenon, and we did not intend to make sample-to-population generalisations (e.g., Englander, 2012); hence, the credibility of the empirical qualitative data was used, rather than representativeness, to assess the selection of interviewees (Englander, 2012; Kvale and Brinkmann, 2009, p.113). Furthermore, the sustainability reports for 2019, the websites of the MNEs and the presentation material of the local business units were utilized to gain a comprehensive understanding of the research context, it is, the MNEs' structures and the operations of the local businesses. Moreover, they were used to obtain an overview of each company's initiatives regarding its sustainability activities.

Table I. The interviewees

Profession/Title	N
Controller with management team role	7
Controller with no management team role	3
Business unit manager	5
Quality, Health, Safety & Environment manager	4
Sustainability specialist	1
R&D or Product manager	3
Sales & Marketing or Customer manager	3
Operations or Procurement manager	2
Lawyer	1
HR-manager	1
Business developer	1
Process developer	1
Gender	
Female	14
Male	18
Age	
< 35	4
35–45	8
46–55	16
> 55	4
Education	
Technological (BSc, MSc, Dr)	15
Economical (MBA, MSc)	15
Other (MSc)	2

Two pilot interviews were conducted in June 2020 and the subsequent interviews between August and December 2020. Because of the COVID-19 pandemic, only six interviews took place face to face and the remainder were conducted by means of video connection using Zoom. The length of the interviews varied between 1 hour and 2 hours, with an average of 1 hour and 14 minutes, and they were conducted in either the Finnish or the English language. With the permission of the interviewees, the interviews were recorded and transcribed verbatim. However, because of a technical malfunction during the recording, one interview was documented only by written notes.

Each interview was opened with a picture of the UN SDG map to stimulate the conversation and to give a common framework for the different aspects of sustainability. The interviews covered the following themes: the presence of sustainability aspects in the operations of the local business unit; the role of sustainability perspectives in the interviewees' own work and their ability to promote sustainability; the perceived involvement of the MNE at the global level; the enabling vs. hindering factors in a sustainability transition; the means to manage a sustainability transition; the consideration of sustainability aspects in private life vs. work; the expectations of the local business unit's citizenship behaviour; the knowledge and skills related to sustainability; the cooperation between functions; and the reporting and measuring of sustainability issues. In addition, the interviewees were asked about their perception of MAs' role in the sustainability context. The topics were openly discussed from the viewpoint of the interviewees' experiences and expectations. This approach allowed rather flexible conversations while still ensuring that all of the main issues covering the interview themes were discussed with every interviewee (e.g., Vaivio, 2008).

3.2 Data Analysis

The interviews were analysed by following the established procedures for qualitative content analysis with three interlinking phases (e.g., Miles and Huberman, 1994). During the first phase, all of the interviews were carefully read. To condense the data, open coding of the empirical material was started. During this phase, we searched for factors influencing the MA role related to corporate sustainability in a local business unit context. We paid particular attention to how the MAs experienced general sustainability trends, how they perceived corporate sustainability and its communication and how they described their own role in corporate sustainability-related issues. In the case of those interviewees who were not an MA, we focused on how they perceived the role of MAs in a corporate sustainability context. We then examined the coded text instances, and, based on their contents, we grouped the codes into larger thematisations. Finally, we deliberated on the identified main themes through the lenses of the theory of psychological ownership and the perceived professional role of MAs. (See Appendix 1 for detailed codes).

To ensure the quality of the results and the credibility of the research, the two authors analysed and interpreted the data through collaboration and iterative discussions (Patton, 2002). The first author has long, solid work experience as an MA in MNEs, which supported the sensitivity of the analysis and interpretation (Vaivio, 2008). The analysis process was facilitated by the Atlas.ti 9 Mac software. A number of interview citations are presented in the findings section to increase the transparency of the data analysis and to make it easier for the reader to evaluate our interpretations. It is to be noted that the interviewees referred to the MAs as "controllers" since this professional title is in use within the participating MNEs. However, for clarity, we also used the term "MA" in the interview citations.

4 Findings

Generally, all the interviewees showed a positive interest in the topic of sustainability and they willingly shared experiences and interpretations, also related to their private lives. When discussing corporate sustainability and the local business unit involvement, variations in familiarity and involvement could be distinguished among the interviewees. However, the awareness of corporate sustainability was among all participants on such a level, that it was quite easy to discuss the existing and possible roles of the MA's.

4.1 *Non-existent Sustainability in MAs' Job Roles in Local Business Units of MNEs*

The organisation structures related to MAs' and established or predefined job roles seemed to be quite similar in the three studied MNEs. The interviewees from the local business units brought to attention especially MAs' role as a business partner and, for MAs participating in the local management team, as an influencer. Moreover, an operative follow-up and reporting role and a functional-oriented role (i.e., the role that is typically associated with compliance and control activities) were recognised.

Interestingly, our findings revealed that the MAs in the MNE local business units currently have hardly any connection to corporate sustainability issues in any of their job roles. MAs' familiarity with corporate sustainability was typically on quite a general level. For instance, while most MAs recognised the UN SDG map or elements of it, only one of the interviewed MAs recalled an existing, direct linkage to their own business unit. Moreover, the MAs identified some corporate-level reporting and communication related to sustainability, but the awareness of sustainability topics or metrics, especially related to their own business unit (with the exception of safety and integrity), was rather low.

I feel, however, that maybe it [sustainability] rests more on the intranet. We do not in our unit speak of it as such as a separate topic. For instance, considering environmental issues. (MA, Interview 9)

While many of the interviewed MAs did not consider sustainability in their present work, they also had difficulties in seeing how it could or should be included. They highlighted their role as having a strong focus on numbers and profitability, which, according to them, currently does not include sustainability viewpoints.

Surely it [sustainability] can impact somehow, but now I cannot say what it could be then. In what way? It tends to be that we calculate different scenarios – if we do this and this, what impact does it have on profitability? (MA, Interview 25)

The focus on profitability-related numbers and the absence of a sustainability perspective could also be distinguished in the discussions about sustainability-related metrics. It was clear to several interviewees that they had no role in developing or providing current sustainability-related metrics, and they expected these kinds of metrics to be provided (and followed) by other functions.

I somehow think that these kind of [sustainability issues] – that is, we [finance] have like numbers, profitability-related numbers. Those [sustainability issues] are more on our quality side, quality and health, safety and environment. And they assumably have metrics. (MA, Interviewee 14)

There were no strong indications that including sustainability perspectives or issues in the MAs' own work would be considered relevant among the MAs. Although many expressed that they would appreciate an opportunity to link sustainability viewpoints to their own work, there were also MAs who did not see it as being of particular interest.

Maybe I do not experience a need [to spend time on sustainability-related issues]. I believe spending time will become actual if such themes occur. (MA, Interviewee 2)

It could be distinguished that the MAs who were management team members were considered to have more power and possibilities to influence the implementation of sustainability into the activities of the organisation. However, this influencing power was not necessarily related to the MA role as such but rather to the managerial role. All the management team members were seen to have the role of leading and instigating discussions. Through their membership of the management teams, MAs were seen to have a say in value-based discussions and the strategic planning of business operations.

If you are in a strategic MA role ... as the business MA you can, as a management team member, of course impact the strategic roadmap and related activities. But when it comes to more operative controlling and to these control centres that handle financial reporting etc., then it is more about [issues related to] well-being at work. (Colleague, Interviewee 19)

However, also as management team members, MAs seemed to narrow their views to the financial aspects. For instance, even though experiencing quite an open and talkative culture, one MA doubted whether she as an MA would receive a favourable response if she initiated a sustainability-related discussion. Conversely, another MA saw the influencing possibilities as a matter of the MA's own interest, thus indicating that MAs may have autonomous power in advancing sustainability although it was not part of their expected role.

These findings indicated, that when MAs themselves tends to exclude corporate sustainability from their role and see it rather as a subject of other functions, they possess no notable psychological ownership of corporate sustainability. In other words, corporate sustainability does not seem to fulfil remarkably any of *the three basic human motives: efficacy and effectance; self-identity; and sense of place (belongingness)*. While this phenomenon should be acknowledged in the development of MAs' professional role, our findings provide a base for the identification of influential factors through the routes to psychological ownership and, consequently, offer new insights into how MA engagement to enhance corporate sustainability may be addressed.

4.2 *Connecting MA Roles to Corporate Sustainability through the Routes to Psychological Ownership*

4.2.1 *Having Control*

Considering the development of psychological ownership of corporate sustainability, a lack of concrete linkages between corporate sustainability and MAs' work tasks is likely to prevent the route of having control from becoming activated (Kurki and Lähdesmäki, 2023). When considering more specifically the MAs' professional roles and how corporate sustainability may be concretised in their work, some clear openings were distinguished in our findings. MAs' role as business partners, especially as assistants or co-operators, was seen as a potential touchpoint for corporate sustainability and MA tasks.

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I believe it [sustainability] fits in just fine ... The MA is the business partner to the organisation and helps the members in problems they have. And this [sustainability] can be an issue among others. (MA, Interviewee 30)

The business partner role was seen as well suited to bringing sustainability aspects into risk assessment, scenario constructions and diverse analyses. Many of the MAs highlighted that, while sustainability development most likely has impacts on costs and thus on the financial numbers, sustainability aspects should be included in different kinds of profitability analyses and impact scenarios.

It would be peculiar if not all aspects impacting the financial numbers were taken into account in the analyses. (MA, Interviewee 9)

The focus among the MAs seemed to be more on the (increasing) cost effects that they expected sustainability aspects to produce. Typically, the MAs stated that nearly all focal key performance indicators (KPIs) that are regularly followed up are financial in nature and have an emphasis on profitability. While the financial, numerical basis seems to be deeply embedded in the MA business partner role, it would, to strengthen the route of having control, be advantageous to address and concretise the causal links between corporate sustainability and financial metrics. For instance, few of the MAs brought to attention a need for analyses of how sustainability-related issues may affect future sales volumes, and only one of them noted that MAs should also learn to recognise sustainability aspects as possible value creators.

Simultaneously, challenging the MAs' quite strict financial focus, the colleagues frequently pointed out that MAs would need to expand their mindset beyond financial aspects to contribute properly to business partner tasks, thus indicating a mismatch between MAs' and their colleagues' expectations of the business partner role. Several of the colleague interviewees called for diverse scenarios including impacts of sustainability-related factors. In this setup, the interviewees urged the MAs to broaden their mindset.

I think that one thing that MAs need to improve in the future is the understanding of these "softer" things. Sincerely, I do not believe that today we can achieve the best financial results by only looking at the numbers. We may be understating the relevance of green values to the customers. (Colleague, Interviewee 27)

One colleague also expressed his concern about a contradictory development of the MA business partner role, preventing the sustainability aspect from becoming topical in the role:

Earlier, the MAs and the management accounting function seemed to have a broader territory, a broader field of work. It has little by little reduced so that nowadays it involves purely financial matters, not much else ... I think more about what is the mission of the management accounting function – must it be limited to only following up and calculating numbers or could the role be something broader? (Colleague, Interviewee 29)

These collegial views could also help the MAs to overcome the limitations of being strictly bound to financial numbers. Additionally, they signal that MAs have a "license to think sustainability", which could strengthen the route of having control.

The operative follow-up and reporting role could provide similar opportunities to strengthen the feeling of having control as the business partner task to arouse risk awareness:

I have encouraged our MA to think about suitable metrics for our business. To proactively raise these things ... to think about how sustainability could be measured and to start constructing methods of measurement. (Colleague, Interviewee 16)

In consensus with their colleagues, MAs willingly included the task of taking part in developing appropriate sustainability-oriented metrics and KPIs in their role. While MAs themselves highlighted that KPIs and targets concretise corporate sustainability in a helpful way, the possibility of participating in developing them would probably strengthen the route of having control effectively.

Despite acknowledging increasing sustainability-related regulatory (reporting) requirements, few of the interviewed MAs thought that sustainability-originated reporting or related follow-up would become a significant element of their work. Only one MA identified a possible future link between MA tasks and the recently introduced European Union (EU) taxonomy directive, which obligates all financial market participants, including MNEs, to identify those of their economic activities that can be considered environmentally sustainable (EU Technical Expert Group on Sustainable Finance, 2020). Many mentioned financial reporting packages as MAs' responsibilities and separated sustainability-related reporting from the whole. Typically, sustainability reporting was seen as being included in the responsibilities of functions dealing with quality or/and health, safety and environmental (HSE) topics.

It is, in my opinion, maybe an organising thing. In a way, does it belong or not belong to the MAs' reporting package? It can still be viewed that the MAs continue to report financial aspects and some other quarters report on sustainability aspects. (MA, Interviewee 9)

The discussions about sustainability-related reporting reveal the linkage of MNEs' organisational structures and the development of psychological ownership. Organisational structures signal a mandate. When lacking, the route of having control becomes repressed.

Finally, the interviewed MAs shared a common understanding that their professional role as such incorporates an inbuilt authority that is not based on management team membership. This could be associated more with their functional role, which incorporates compliance and control activities. As one interviewee expressed it:

I believe as an MA you have on your side that you always can make your voice heard. (MA, Interviewee 9)

Consequently, the MAs recognised their ability to affect attitudes towards sustainability through their own behaviour and communication. Some even noted that, while MAs are often seen as strict profitability guardians, their view on sustainability aspects may have additional weight. With this in mind, they experienced that an MA even has the potential to direct attention to aspects other than the prevalent cost efficiency aspect.

4.2.2 *Developing Deep Knowledge*

Some interviewed colleagues recognised that corporate sustainability may lead to more profound changes in business models and, when topical, the implementation would require attention and support from MAs. They noted that such new business models may require new KPIs or changes in the interpretation of current KPIs. As an example, a revenue model based on leasing as a consequence of a circular economy was mentioned.

This means that the product is considered in the assets – it impacts the balance sheet in a different way. (Colleague, Interviewee 8)

Such viewpoints were totally missed by the interviewed MAs. Typically, they admitted that their know-how about corporate sustainability was not at an adequate level, and most often they mentioned the need for a better understanding of the whole. Several noted that the corporation could provide training regarding sustainability in a broad sense – for instance, through similar training that has already been provided for safety or codes of conduct. However, from an MA's point of view, it was also seen as essential to gain a better understanding of the organisational impacts on sustainability to be able to analyse how possible changes in the operations affect the financial numbers.

It would be easier to talk about advancing sustainability if different facts of the own organisation's impacts were known. (MA, Interviewee 20).

Despite recognised the need for knowledge, the MAs did not appear to have an independent or immediate need to increase their sustainability-related know-how. Rather, they seemed to be waiting for some “external (or internal) force” to make it more topical, referring to sparse time resources.

In a way, yes ... I think that if I was about to start advancing these [sustainability] topics, I would probably know where to start, but then we come to these time management issues. (MA, Interviewee 21)

Nevertheless, finding time for both corporate-level training on sustainability and related internal know-how sharing could effectively serve the development of psychological ownership of corporate sustainability as developing deep knowledge about an objective is one of the major routes towards psychological ownership.

The MAs themselves brought up collaboration and reciprocal communication as central means for developing a deeper understanding of corporate sustainability.

In my opinion, it adds value to have participants from different functions as it generates different viewpoints. While the understanding is not complete, so-called stupid questions can be asked, which may make others become aware of something essential ... usually it is beneficial that people have different knowledge and various backgrounds. (MA, Interviewee 2)

Typically, the interviewed MAs identified functioning networks as a central source for improving personal know-how about sustainability.

There could be some trainings, but I believe that mostly it [know-how] develops when you yourself go and speak to different people in different functions. (MA, Interviewee 3)

The networking and collaborative features in the business partner role also seemed to be appreciated by the colleagues, and some suggested that MAs could, through participation in the development of cross-functional processes and through networks, act as glue in sharing a common understanding and information related to sustainability. When the MAs also easily saw themselves participating in sustainability-related problem solving and, particularly, providing their extensive networks across functions and other corporate business units, networking seemed to provide a natural path embedded in the business partner role for MAs to develop their knowledge of corporate sustainability.

... although you don't necessarily know that much about the issue itself, you can provide a contact from another business unit. Or you can be in contact with someone that you have heard has similar kinds of problems ... surely it is the same with sustainability, it is always good to be aware of what happens in the different functions of the organisation. (MA, Interviewee 2)

Furthermore, the interviewed MAs reflected on the already-existing skills that could be utilised when considering sustainability aspects. Many saw an association between Lean control and sustainability. Accordingly, they saw that Lean control has provided them with a critical mindset related, for instance, to waste and needless steps in their work. Attempts to automate ordinary tasks – for instance month-end closing tasks – were seen to provide better readiness for advancing sustainability in the future, enabling the agility to change and develop technology to include sustainability aspects. However, indicating different areas of interest or skills, only a couple of the interviewed MAs mentioned the possibilities of utilising digitalisation or artificial intelligence in, for example, developing sustainability-related metrics and providing bases for sustainability-oriented scenarios. A few of the interviewees also brought to attention that MAs typically interfere in all kind of topics within the organisation with a “controlling” mindset, for instance ensuring that tasks are performed accurately and on time.

That ...[securing] is what we do related to many things already. Mostly of course related to financial aspects, but it could also be related to something else. (MA, Interviewee 2)

According to them, the controlling mindset could also be used in sustainability aspects, provided that the substance know-how is sufficient. From the development of psychological ownership point of view, possibilities to build on existing skills and knowledge may provide an inspiring base for expanding and deepening the knowledge of corporate sustainability.

4.2.3 *Investing the Self*

While the sense of ownership may develop through any one route or any combination of the three routes, multiple routes are likely to strengthen the feeling of ownership further (Pierce *et al.*, 2003). Hence, concrete linkages between corporate sustainability and work tasks may have a particular role in the development of MAs' psychological ownership of corporate sustainability. Specifically, all the potential touchpoints for corporate sustainability and MA tasks identified in subsection 4.2.1 *Having Control* are also likely to strengthen the route of investing the self. This route is triggered by the time, effort, skills and attention that MAs are able to devote to sustainability issues, that is, when the impact of the MAs' own efforts becomes more tangible.

Furthermore, MAs brought forward some underlying factors that are likely to affect MAs' ability to or interest in becoming more deeply involved in corporate sustainability. They recognised the importance of the corporate strategy and its communication in defining a strong corporate mandate and emphasised the need for managerial commitment through the prioritisation of activities advancing sustainability. Subsequently, they considered sustainability-related key performance indicators (KPIs) as clear and supportive signals of the management's interest in and commitment to sustainability and, accordingly, as a central tool for directing focus and giving license to act.

When thinking about what to prioritise in work, if we had some specific targets related to sustainability, we could focus on those targets ... it feels like the focus is more on financial targets and related to costs and functioning processes ... if there were concrete

[sustainability-related] targets, we, and all the functions, could think about what we can do differently or develop. (MA, Interviewee 3)

According to our findings, MAs typically had no clear corporate-level expectations or mandate to participate in advancing corporate sustainability. Nevertheless, when aiming for MAs' involvement and for MAs to invest their time and efforts (i.e., invest their self) actively in corporate sustainability, an explicit mandate is essential.

The studied MNEs provide standardised and predefined job roles throughout the global corporation. Considering the MA role, there were no direct references to sustainability in the current descriptions. Interestingly, there were mixed opinions among the interviewed MAs regarding whether it would be beneficial to have some recognisable point of connection to sustainability. Only one MA noted that, if a connection were to be recognised in the corporate business partner role descriptions, it might increase the MAs' focus on corporate sustainability issues.

Many years, there has been this talk about business partnering. There could be more about the content. If it would include sustainability, it [sustainability] would surely be more in focus – a box that is promoted by the CFO would bring attitude and visibility. (MA, Interviewee 25)

Generally, mentioning sustainability in the MA role description was seen as irrelevant, while sustainability was considered to be naturally included in the business partner role whenever sustainability-related issues are topical for the local business unit. A more detailed corporate description could, according to one MA, even be interpreted as an order that diminishes local-level sensitivity. However, from a psychological ownership viewpoint, corporate MA role descriptions could provide an efficient way to signal mandate. Alternatively, an absence of corporate sustainability aspects in corporate MA role descriptions may remarkably prevent both the route of investing the self and the route of having control from becoming active.

5 Discussion

Burns and Baldvinsdottir (2005) stated that “It is equally important for tomorrow’s management accountants to show adaptability when facing the inevitable new challenges (contradictions) along the way, and be able to recognise, act upon and cope with emergent opportunities for change (praxis)” (p.751). To stay the course, and considering the current increased importance of and calls for sustainability, we investigated how MAs as individuals may become more engaged in corporate sustainability and, consequently, develop their own sustainability thinking (Kurki and Lähdesmäki, 2023). Subsequently, we discuss, in the light of the three routes of psychological ownership and the insights gained from the literature related to MA roles, the opportunities to incorporate corporate sustainability into the MA role.

5.1 Ability Building

An overall engaging corporate culture provides a critical basis for awakening and developing psychological ownership (Bhattacharya, 2019). Regarding corporate sustainability, at its best, the culture encourages employees to discuss and participate in sustainability efforts and decisions, and, while people typically identify themselves with decisions that they are a part of, they develop psychological ownership of such decisions (Jussila *et al.*, 2015). Furthermore, an open and transparent culture allows employees to advance their own ideas and develop autonomous thinking regarding corporate sustainability, nourishing the route of investing the

self (Kurki and Lähdesmäki, 2023). However, despite an inviting corporate culture, it is unlikely that different functions of an MNE may individually choose which sustainability management activities to undertake (Windolph *et al.*, 2014). Rather, the overall corporate strategy driven by the top management determines whether functions engage in sustainability management (Egan and Tweedie, 2018; Windolph *et al.*, 2014). Järvenpää (2007) showed, that while MNEs can actively re-shape the business partnering role of MAs to incorporate new aspects and activates (e.g., corporate sustainability), through, for instance, supportive organisational structures, new accounting systems and innovations, and active training and career planning policies, such undertakings need to be supported by the official corporate strategies and values.

While a legitimate mandate is crucial for both achieving a possible professional role change of MAs to become institutionalised and self-evident on an organisational level (Goretzki *et al.*, 2013) and on an individual level activating all three routes of psychological ownership of corporate sustainability (Kurki and Lähdesmäki, 2023), it is relevant to reflect on the reasons why sustainability-related aspects are not considered in the corporate MA role descriptions. One interpretation, supported by our findings, is that the business partnering role should be understood as a broad one; it should automatically incorporate corporate sustainability when essential. The role is at the centre, for instance, when bringing sustainability aspects into risk assessment, scenario constructions and diverse analyses. Another reason, also mirrored by our findings, may be the novelty of the phenomenon of MNEs' defining and implementing comprehensive corporate sustainability strategies. Implementing such strategies throughout the corporate is a time-consuming process, with amplified challenges due to organisational complexity. Hence, embedding corporate sustainability aspects into organisational structures and job roles is probably in its early stages.

Still, there might also be a more profound reason: corporations do not trust in the capabilities or interest of MAs to incorporate sustainability into their job role (e.g. Egan, 2018). Our findings showed evidence that MAs experienced a lack of both a broader understanding of sustainability and know-how about sustainability in practice and that they felt no pressure to increase their related knowledge, evidencing a weak preparation of MAs for the demands and changes brought about by corporate sustainability. These quite alarming observations imply a high risk of MAs being decoupled from sustainable development concerns – a risk that should be recognised and acted upon by MA professional organisations and MA professional education providers. In the pursuit of improved sustainability knowledge and sustainability-related skills and competences, professional education has a focal role in overcoming the present deficiency (Schaltegger and Zvezdov, 2015; Halari and Baric, 2023). Including sustainability more strongly in professional education and providing topical sustainability-oriented conferences and training seminars would give a clear signal to MAs that sustainability knowledge is required in the future professional role of MAs and thus increase, in addition to their ability, their willingness to proactively invest time in sustainability topics. Hence, considering the development of psychological ownership, a more sustainability-oriented professional education may support both the route of developing deep knowledge and the route of investing the self. Moreover, for the route of having control to become active, an intentional sustainability-oriented education can provide the necessary concretisation of corporate sustainability when connections to daily work are still lacking (see e.g., Lee *et al.*, 2017).

However, despite the importance of professional education, Caron and Fortin (2014) demonstrated that the formal training in sustainability for accountants is insufficient, noting that related knowledge is mostly acquired informally and within organisations rather than through universities or professional bodies (see also Boyce *et al.*, 2019). MNEs' organisational knowledge sharing is not to be underrated as it can be effective for the route of developing deep knowledge to become activated (Kurki and Lähdesmäki, 2023). Kurki and Lähdesmäki (2023)

showed that providing opportunities to participate in sustainability-related activities, for example through piloting or benchmarking, could be a powerful means to increase individuals' commitment to sustainability. Actually, our findings provided evidence that MAs themselves value MNE internal training, particularly knowledge sharing through networks and cooperation, as the preferable means to improve personal sustainability know-how. Considering internal knowledge sharing, MNE-wide job rotation may additionally be a useful tool in MAs' professional change process (Järvenpää, 2007). In a sustainability context, Chams and García-Blandón (2019) found in their literature review that both "green" training and job rotation addressed by human resource management are essential tools to generate sustainability competencies. While information alone may not be adequate to create a feeling of ownership (Pierce *et al.*, 2001), training combined with job rotation both concretises and increases the intensity of the association and thus influences the outcome. A wide-ranging association with corporate sustainability probably leads to a perception of a deeper understanding of it and, consequently, to a sense of ownership of corporate sustainability.

5.2 Willingness Building

Considering the psychological ownership aspects, our findings supported the view that the role of MAs typically incorporates influential power and autonomy (e.g., Schaltegger and Zvezdov, 2015; Wolf *et al.*, 2015), both of which are important elements for strengthening the route of having control. Combined with the established MA role of participating in different networks, the current MA roles, provide major ingredients for strengthen the individual level psychological ownership for corporate sustainability, and, consequently, integrate sustainability concerns throughout the organisation and beyond, as suggested by Johnstone (2019). However, linking strongly to the willingness to invest the self, a professional role change of MAs may also require a professional role identity change (Chreim *et al.*, 2007; Goretzki *et al.*, 2013; Horton and de Araujo Wanderley, 2018) – that is, a change in how they incorporate their perception of occupational interests, abilities, goals, motives and values and how they link them with acceptable career roles (Chreim *et al.*, 2007). Horton and de Araujo Wanderley (2018) suggested that possible identity conflicts represent a critical trigger and facilitator of institutional change. They argued that MAs try to reduce perceived discrepancies through active identity work and job crafting, which facilitate changes in the roles, tasks and relational boundaries of MA work.

Järvinen (2009) suggested that professional role identity takes shape through discursive processes in which persons validate their doings, successfulness and hopes regarding future development to others and themselves. Hence, MA role identity is shaped in an extensive context by different types of interactions and by MAs' perception of whether, to them, important people appreciate or oppose a certain behaviour (Goretzki and Messner, 2019). Although we could not recognise ongoing MA identity work related to incorporating corporate sustainability in our study, our findings indicated that MAs would probably rather have organisational support than resistance in a possible role identity change towards sustainability; the colleagues of MAs typically interpreted the implementation of corporate sustainability as a cross-functional task and expressed expectations of MA involvement in this task.

However, a major obstacle for MAs to broaden their mindset towards sustainability thinking is a deeply and widely institutionalized mind-set within accounting, which adopts the assumptions of standard economic theory at large is a taken-for-granted (Jones *et al.*, 2010; Lukka & Becker, 2022). Furthermore, determining sustainability indicators is subjective in nature, incorporating political dimensions, while MAs are typically regarded as representatives of objectivity (e.g., Bebbington *et al.*, 2007). Disturbing this conventional thinking, corporate sustainability entails broad horizons, requiring multidimensional interpretation and

measurement of the interactions of economic, social and environmental issues, and acknowledging generational timeframes. The fact that accounting is strongly biased towards the measurement and generation of profit is especially challenging for developing multidimensional measurement (Bebbington and Larrinaga, 2014; Contrafratto and Burns, 2013; Lukka and Becker, 2022). Visible also in our study, MAs have a strong tendency for quantified commensuration, which diminishes or cuts off many qualitative aspects of business operations and their role in society (Lukka and Becker, 2022). Supporting this notion, Arora *et al.* (2022) found that MAs did not appreciate integrating reporting and that they found it challenging to convert numerical information into narratives.

Halari and Baric (2023) suggested the lack of MA involvement in corporate sustainability activities, such as circularity economy, arises from both perceived conceptual distinction between accounting and the nature of sustainability and from the persistently perceived stereotype of MAs being conservative, number crunching “bean-counters”. However, providing also collegial views, our findings indicate that the stereotypical views are fostered mainly by the MAs themselves and rarely by the colleagues. Rather, there seems to be a mismatch between MAs’ and colleagues’ expectations regarding the MA role as colleagues wished MAs would broaden their mindset beyond financial aspects (see also Egan and Tweedie, 2018; Byrne and Pierce, 2018). While Rieg (2018) found that MAs’ business partnering is determined more by subjective norms than by their personal attitude, the collegial views may also expose an opportunity for MAs to overcome the limitations of being tightly bound to financial numbers. Egan and Tweedie (2018) argued that, when adequately supported, MAs can experiment with new duties that stretch their professional identities. Moreover, with sufficient movement into new roles, MAs could gain acceptance and a favourable evaluation of their new proficiencies as future roles are likely to be more important when determining their occupants’ (i.e., MAs’) future stereotypes than the current beliefs about them (Koenig and Eagly, 2014).

Simultaneously, it should be noted that MAs is not the only professional group that has to face and cope with tensional (or even paradoxical) features originated in corporate sustainability (Carollo and Guerci, 2018; Hahn *et al.*, 2015; Van der Byl and Slawinski 2015). Several professions are undergoing a significant change in how they integrate corporate sustainability objectives into their roles and core values. Interestingly, project managers experienced quite similar tensions as MAs when confronted with the prospect of including vague, sustainability objectives in their practices, such as organisational barriers and lack of mandate, knowledge, and institutional support (Sabini and Alderman, 2021). In addition, the reactions of the project managers to the tensions also reminded those of MAs, it is, transferring responsibility to other professional and doubting the necessity of project manager involvement (Sabini and Alderman, 2021). When examining professionals with longer experience and responsibilities related to corporate sustainability issues, sustainability managers, Carollo and Guersi (2018) found tensions that were more related to how the sustainability managers can effectively or satisfactorily exercise their work in advancing sustainability: being business versus values oriented, being an organizational insider versus outsider, and having a short-term versus long-term focus.

The outcomes of these studies indicate, that the psychological ownership of corporate sustainability is still in its infancy among many professions within the MNEs. However, the identified distinct tensions experienced by sustainability managers reveal a different relation towards corporate sustainability. We suggest, that this is due to a more developed psychological ownership of corporate sustainability. The sustainability managers have in their work role most likely, for a longer period of time, been exposed to corporate sustainability issues with an intensity that strengthens the emergence psychological ownership (Pierce *et al.*, 2001, 2003). The inherent complexity in corporate sustainability will not disappear although developing

psychological ownership of it. However, psychological ownership may also equip individuals (MAs) to better accept the contradictory characteristics of corporate sustainability, and rather begin to see it as a source for transformational innovation and rethinking, as suggested by Pedersen *et al.* (2021). This can be supported by both MNEs and professional organisations and educators through increased openness and transparency regarding the inevitable tensions arising from corporate sustainability.

6 Conclusions

This study contributed to management accounting and business sustainability research by employing the frameworks of the psychological ownership theory and MAs' professional role to gain a new understanding of the (lack of) involvement of MAs in corporate sustainability initiatives. We suggested that developing a feeling of psychological ownership of corporate sustainability is an important precondition for MAs to become sustainability thinkers and engaged in the sustainability transition. Our study showed that several factors that affect the emergence and strength of the routes to psychological ownership of corporate sustainability, such as linkage to one's own work, adequate know-how and mandate, are currently missing or insufficiently present in MAs' professional role. At the same time, our analyses demonstrated that such a state need not be steady and that the situation can be improved. Business partnering especially provides a natural foundation for incorporating corporate sustainability into MAs' daily work.

As a practical implication, our study also provides information for MNE managers regarding how they can actively engage MAs in corporate sustainability. For instance, including sustainability aspects in corporate-level MA role descriptions would both indicate a needed mandate and concertise a linkage to MA work. Moreover, sustainability-related skills and know-how can preferably be addressed in multiple ways. In this vein, our findings concretise the need to introduce a broader, interdisciplinary approach into accounting to address sustainability development (Bebbington and Larrinaga, 2014; Lukka and Becker, 2022). To date, the focus has been too much on the financial numbers.

We acknowledge the potential empirical limitations of the study. It was conducted as a qualitative, interpretive (Ahrens and Dent, 1998; Parker, 2012; Vaivio, 2008) and abductive (Lukka, 2014; Lukka and Modell, 2010) study, including 32 interviews carried out in seven MNE units. According to Lukka and Modell (2010), validation in interpretative studies can be seen as an issue of convincing readers of the authenticity of research findings and simultaneously ensuring that explanations are plausible. We believe that, in our account, with rich and thick empirical data combined with careful theoretical analysis using a psychological ownership theory as a method theory (Lukka and Vinnari, 2014), we were able to reach both authenticity and plausibility in our interpretation. However, we suggest future research, both qualitative and quantitative, in other contexts to gain an even better understanding of the psychological ownership of MAs' sustainability orientation and, more broadly, of MA work related to different aspects of sustainability.

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**“Getting your hands dirty in environmental accounting”
– Implications for employees’ psychological ownership of
corporate sustainability**

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Abstract

Employee engagement is vital in promoting corporate sustainability. This research elaborates on the process of engagement and especially the effect of incorporating sustainability-related tasks into one's personal work on individual-level engagement. The paper draws on an empirical case study with psychological ownership theory as the focus driver and employees' participation in an environmental accounting project as the intervention. The study of a multinational enterprise's environmental accounting project, conducted through one year of participant observation and 18 interviews in a cross-national team, shows that adding sustainability-related tasks to one's own work stimulates the routes of psychological ownership of corporate sustainability, although the impacts are nuanced. Noteworthy, psychological ownership of corporate sustainability is likely to arise/increase regardless of whether an individual is already committed to sustainability. The study demonstrates how job design influences employee engagement in corporate sustainability and how it can be used to support corporates' sustainability transition. Furthermore, it shows how concretising tools of environmental accounting can help individuals to deal with the perceived ambiguity of corporate sustainability. The study provides new theoretical and methodological insights into the process of individuals becoming engaged in promoting business sustainability.

Keywords

corporate sustainability, environmental accounting, individual level, psychological ownership, employee engagement, job design

1 Introduction

Corporate sustainability (CS) is generally referred to as a company's dedication to integrating ecological and social concerns into its business operations and its interactions with stakeholders (van Marrewijk, 2003). However, translating the concept into action, into concrete initiatives and practices, has proven to be highly challenging (Engert & Baumgartner, 2016; Wright & Nyberg, 2017). While CS can effectively be advanced best when the entire company is organised in a sustainable mode, employees are expected to contribute to the design and realisation of CS (Meuer et al., 2020).

The implementation of and engagement in CS have mostly been studied at the organisational level (Aguinis & Glavas, 2012; Glavas, 2016b; Onkila & Sarna, 2022). Only recently have individual-level studies addressing the relationship between CS and employees increased in number (Gond et al., 2017; Jones et al., 2019). Typically, these studies have explored the impact of CS on employee outcomes (e.g., attitudes, perceptions, and behaviours such as organisational commitment, job satisfaction, and organisational citizenship behaviour (OCB), and related mediators and moderators (see Glavas, 2016b)). However, little is known about the intra-organisational and individual-level aspects of employee engagement specifically in implementing CS (Linneberg et al., 2019), and albeit critical for designing CS implementation, scarce theoretical and conceptual attention has been paid to the processes through which individuals become engaged in CS (see Bhattacharya, 2019; de Roeck & Maon, 2018; Kurki & Lähdesmäki, 2023).

Kurki and Lähdesmäki (2023), using the theory of psychological ownership (PO), examined the factors that influence the sustainability engagement of individuals within multinational enterprises (MNEs). Their study indicated that concrete linkages between sustainability and employee's own work could be a central contributor to the development of PO of CS and consequently contribute to engagement in CS. Building on the recent theoretical

discussion of PO in the CS context (Bhattacharya, 2019; Kurki & Lähdesmäki, 2023), this case study further elaborates on how incorporating sustainability-related tasks into everyday work through participation in an environmental accounting (EA) project affects employee engagement in CS. EA refers to the tools, techniques and practices that provide corporates with the means to define, measure, and report their environmental impacts both internally and externally (e.g., Laine et al., 2021). Scholars have addressed the usability and effectiveness of EA in promoting organisational change towards more sustainable practices (see Garcia-Torea et al., 2023) as well as its possible impacts on environmental sustainability outcomes (e.g., Bebbington & Larrinaga, 2014; Bebbington & Unerman, 2018; Gray, 2010). This study takes another perspective and considers the potential instrumental value of EA in engaging employees in CS. Because of its concretising nature, EA can help to reduce the perceived ambiguity related to CS – a factor that seems to hinder employees' CS engagement remarkably (Kurki & Lähdesmäki, 2023). Consequently, this research asks *how the individual-level PO of CS is affected when sustainability perspectives are introduced, through EA, into the daily work of employees.*

The present study contributes to both business sustainability and EA research by exploring how an EA project can act as an intervention to strengthen employees' PO of CS. It further demonstrates the role of concretisation and employees' own participation in the emergence of PO of CS, and offers a new understanding of the consequences of individuals' having different motivations and competence levels in their relationship with CS. Moreover, the study responds to the call for individual-level research on business sustainability (Aguinis & Glavas, 2012; Frynas & Yamahaki, 2016; Onkila & Sarna, 2022). From a managerial perspective, the study demonstrates how job design can be utilised to support the sustainability transition of corporates.

2 Theoretical framework

2.1 *Corporate sustainability and employee engagement*

Research on CS has found that employees' supportive behaviour is critical in implementing corporates' sustainability-related strategies (Daily & Huang, 2001; Meuer et al., 2020; Ones & Dilchert, 2012), and therefore the relevance of including individual-level dimensions into the CS studies has become evident (Gond et al., 2017; Rupp & Mallory, 2015). With a focus on employees, researchers have made significant contributions by acknowledging managers and the question of how differences in managers' perception of sustainability issues affect CS strategies or initiatives (e.g., Banerjee, 2021; Hahn, et al., 2014). Another important stream of individual-level CS research has addressed the relationship between CS and employee engagement in organisations. Existing studies have typically focused on how CS effects employees' attitudinal and behavioural outcomes and some also on related mediators and moderators (Glavas, 2016b). As for attitudes, studies have shown that employees' favourable notions about CS positively affect organisational commitment (Shen & Jiu Hua Zhu, 2011), organisational identification (Farooq et al., 2017), job satisfaction (Asrar-ul-Haq, 2017), and employee work engagement (Rupp et al., 2018). In terms of behaviours, it has been suggested that CS positively affects, for instance, in-role and extra-role performance (Shen & Benson, 2016), employee creativity (Hur et al., 2018), and OCB (Gao & He, 2017).

More recently, the focus has been directed to the effects of employees' attitudes and behaviour on the environment as organisational citizenship behaviour for the environment (OCBE) has become topical in individual-level research (Francoeur et al., 2021). OCBE can be defined as discretionary behaviour of employees that is not rewarded or required by the organisation but contributes to environmental improvement (Daily et al., 2009). Accordingly, the related literature has focused on how employees engage in actions and behaviours related to environmental sustainability, promoting or undermining it on a rather informal and voluntary

base (e.g., Abbas et al., 2022; Daily et al., 2009). These studies have suggested that employees' "green" behaviour may have a significant effect on CS through, for instance, responsible energy and water usage, sorting and reducing waste, consumption routines, and suggestions for the improvement of environmental practices. OCBE helps to create a social context encouraging the integration of ecological issues into daily activities and thus promotes sustainable development within organisations (Boiral, 2009).

However, for corporates to implement their sustainability transition strategies and to ensure their social and environmental accountability, they need to look beyond the realm of voluntary CS behaviour; employees have too easily been conceptualised as carrying out CS interventions through extra-role behaviours rather than within-role behaviours, although there is a need for more opportunities for employee involvement in the design and practice of CS (Hejjas et al., 2019). Effective implementation of CS means embedding the concept by engaging people throughout the organisation in sustainability efforts (Süßbauer et al., 2019; van der Heijden et al., 2012). Accordingly, there is a need to focus on gaining sufficient understanding of the processes that influence employee engagement in promoting CS and, more importantly, how such engagement can be developed.

Studies that have focused on exploring the underlying mechanism of perceived CS and employees' outcome have frequently relied on social identity theory (dominating), signalling theory, and social exchange theory (Gond *et al.*, 2017), all of which can be seen as fundamental frameworks to understand how employees make sense of and navigate in an organisational relationship context. In addition, the multifaceted and complex nature of CS has led researchers to use sensemaking (e.g., Sarna et al., 2022) and paradox theory (e.g., Carollo & Guerci, 2018), to investigate how individuals may deal with CS-related tensions. However, studies on the psychological mechanisms that may further explain the drivers of CS or the process through which individuals may become engaged in enhancing CS are rare (Gond et al., 2017; Onkila

& Sarna, 2022). In this nascent stream, the theoretical approach has been broadened to incorporate social cognitive theory (Opoku-Dakwa et al., 2018) and PO theory (Bhattacharya, 2019; Kurki & Lähdesmäki, 2023). Kurki and Lähdesmäki (2023) showed that PO theory provides a well-structured framework through which, in an organisational context, the individual-level engagement in the transition of business practices towards sustainability can be described and understood. Because of its processual nature, the PO framework is particularly suitable for this case study. Additionally, it offers a heuristically practical management approach to engage employees in the CS transition.

2.2 The theory of psychological ownership

PO represents the feeling of possession of and psychological attachment to an object without the presence of formal or legal claims of ownership (Mayhew et al., 2007). Pierce et al. (2001, 2003) defined PO as a state in which individuals feel as if the object of ownership or part of it is “theirs”. PO contains cognitive and affective elements that reflect the individuals’ awareness, thoughts, and beliefs regarding the object of ownership (Pierce et al., 2003). Similar to person–object relations, feelings of ownership can be directed towards other people or immaterial objects such as ideas and words (Pierce et al., 2003), groups, organisations, work, and jobs (Van Dyne & Pierce, 2004), the environment (Süssenbach & Kamleitner, 2018; Ullah et al., 2021), and CS (Bhattacharya, 2019; Kurki & Lähdesmäki, 2023). Most often, the state of PO is connected to positive outcomes, for example increased self-esteem, taking responsibility, and citizenship behaviours in relation to the object (Van Dyne & Pierce, 2004). However, some negative manifestations, such as refusal to share, anxiety, and burden of responsibility, may also occur (Wang et al., 2019).

Pierce et al. (2001, 2003) suggested that the emergence of PO is related to the fulfilment of three fundamental human motives: *efficacy and effectance*, *self-identity*, and *having a place*.

The first motive, *efficacy and effectance*, relates to feelings of control (Furby, 1978). The possibility to shape and control the object of ownership, that is, to experience causal efficacy, evokes attempts to take possession and leads to ownership feelings (Pierce et al., 2003). *Self-identity* as a motive is about how people define themselves. People use ownership to establish their sense of identity, express their self-identity to others, and maintain the continuity of the self over time (Dittmar, 1992). The third motive, *having a place* (belonging), originates from the need to have a certain space in which to dwell, a “home” (Heidegger, 1967). Although lacking a direct causal connection, each of these three motives facilitates the development of PO (Pierce et al., 2001, 2003). Thus, as long as a specific object satisfies one or more of the motives, individuals can develop a sense of ownership towards it.

The emergence of PO is likely to be a lengthy and dynamic process (Pierce et al., 2003). Pierce et al. (2001) recognised three major routes through which people come to experience PO. A person can derive a sense of ownership through any one or any combination of these three routes, although multiple routes are likely to strengthen the feeling of ownership (Pierce et al., 2003). The first route is *having control over the object*. The more control a person exercises over a potential object, the more they will view it as an extension of the self (Furby, 1978). The sense of control requires a certain level of autonomy in relation to and interaction with the object (Pierce et al., 2009). People are likely to develop PO of decisions that they have been part of, as the decisions become “their decisions”, and they being “the cause” (Jussila et al., 2015). The second route to feelings of ownership is *developing deep knowledge about the object*. Beaglehole (1932) noted that when an object is known intimately, it becomes part of the self. The more information and the better the understanding a person obtains about an object, the deeper the relationship becomes between the self and the object becomes (Pierce et al., 2001). The third route is *investing the self in the object*. It refers to the investment of a person’s energy into the object; people feel like they own objects into which they put ideas,

time, effort, and creativity. In other words, people see themselves reflected in the object and feel that its existence is partly due to their efforts (Pierce et al., 2003).

While the characteristics of an object affect the extent to which the three motives are satisfied and how the object enables or impedes the routes to ownership (Pierce et al., 2003), the characteristics of CS provide excellent potential to stimulate PO; individuals can contribute to relevant solutions with a measurable impact, express personal values and identity through work, and be part of something larger (Bhattacharya, 2019). Opoku-Dakwa et al. (2018) suggested that the characteristics of CS initiatives affect employees' CS engagement because they lead employees to anticipate personal, organisational, and humanitarian impacts that are meaningful. Similarly, Aguinis and Glavas (2019) argued that CS expands the concept of work beyond task, job, intra-individual, intra-organisational, and profit perspectives, thus providing an ideal conduit for individuals to seek and find meaningfulness through work. Consequently, CS is likely to offer employees a new purpose in their work (Bhattacharya, 2019; Bhattacharya et al., 2022). To summarise, when CS is the object of PO, the routes of PO may be activated by any perceived increase in control over corporate actions that have a positive sustainability impact, any perceived addition to knowledge about sustainability issues and related corporate impacts, and any personal investment in improving CS.

However, it should be noted that CS is not necessarily an "easy" object; It has been widely recognised that CS causes tensions, trade-offs, and even paradoxes (e.g., Hahn et al., 2015; Van der Byl & Slawinski, 2015; Wannags & Gold, 2020). Furthermore, Kurki and Lähdesmäki (2023) showed that, in the context of CS, the factors that affect the emergence of the routes to PO may act in a contradictory manner, thus having both strengthening and hindering effects. However, they also suggested that concrete linkages between an employee's own tasks are a central contributor to developing PO of CS and consequently contribute to engagement in CS. Therefore, it is of interest, through a case study, to elaborate further on how

integrating sustainability-related tasks into everyday work affects employees' engagement in promoting CS.

3 Research methodology

In this case study a qualitative, interpretative research approach (e.g., Parker, 2012; Vaivio, 2008) with a theoretical focus driven mode (Lukka & Wouters, 2022) was adopted to gain a rich understanding of the development of individual-level PO of CS in a business organisation context. The theory of PO was utilised as a guiding framework, and an abductive approach was employed for the analytical process. Accordingly, the analysis was based on the iterative dialogue between the empirical data and the existing theory (Lukka & Modell, 2010; Timmermans & Tavory, 2012). The PO theory utilised can also be seen as a method theory (Lukka & Vinnari, 2014).

3.1 Research context

The case MNE operates within the technology industry and serve the energy and transport sector. It can be regarded as generally responsive within the context of sustainability; it aims to find new solutions to enable further sustainable development and is included in noteworthy sustainable development indices. It reports sustainable development in accordance with the Global Reporting Initiative Standards, which are aligned with the Sustainable Development Goals (SDGs) of the United Nations (UN). Recently, the case MNE has increased its focus on product sustainability, and, in this connection, one of the MNE divisions has established an EA project working on product life cycle assessments (LCAs) and environmental product declarations (EPDs). EPDs are independently validated documents that, based on LCAs, measure the environmental consequences of a product from "cradle to grave". EPDs provide detailed information about a product's ecological implications, such as its carbon footprint.

With the case MNE management's acceptance, this EA project, with its cross-national team, which included about 25 participants from seven different European countries in the initial phase, provided the base for the present study.

3.2 Research data

The qualitative data were collected by applying a multi-method paradigm, permitting validation through triangulation. First, the data were collected through participant observations (Yin, 2014), whereby the researcher joined and worked in the EA project in one of the studied project centres and as a member of the global sustainability council team of the project. The participant observations included the attendance at meetings and discussions on advancing sustainability, examining the available data (e.g., documents, presentations, and emails), and participating in the preparing of LCAs and EPDs. Participant observations were made during the year 2022 (12 months) and documented in a research diary. In the second half of the year, after the project had become familiar to the project participants, the participant observer collected additional data from 18 project participants during in-depth interviews using semi-structured questions. Of the interviewees, four worked in the global sustainability team while the remaining 14 were employees of different business units (see Table 1). All the initial team members were invited for an interview, but the final number was limited to 18 mainly due to language barriers. While the aim of this study was to gain a deeper understanding of the phenomenon and not to make sample-to-population generalisations (e.g., Englander, 2012), the set of interviewees provided sufficient credibility (Englander, 2012). Furthermore, to obtain an overview of the company's initiatives regarding sustainability activities, the sustainability reports for 2021 and 2022 and the websites of the MNE were used as information sources.

Table I. The interviewees

Profession/Title	N
Controller with management team role	7
Controller with no management team role	3
Business unit manager	5
Quality, Health, Safety & Environment manager	4
Sustainability specialist	1
R&D or Product manager	3
Sales & Marketing or Customer manager	3
Operations or Procurement manager	2
Lawyer	1
HR-manager	1
Business developer	1
Process developer	1
Gender	
Female	14
Male	18
Age	
< 35	4
35–45	8
46–55	16
> 55	4
Education	
Technological (BSc, MSc, Dr)	15
Economical (MBA, MSc)	15
Other (MSc)	2

The interviews were conducted via an online video connection using Teams. They were carried out in English and varied in length, with an average length of 65 minutes. With the interviewees' permission, the interviews were recorded and transcribed verbatim. The interviews covered the following four themes: 1) *views on CS*: the essence of considering sustainability aspects; progress in advancing sustainability within the business; the corporate culture and sustainability strategy; the visibility of sustainability in the local organisation; and views on stakeholder-impacts; 2) *EA project*: reasons for involvement; project resourcing, support, and own time used; linkages to individual performance appraisals; organisational structures and responsibilities; cross-functional cooperation; level of sustainability discussions and speaking partners; essence of the EA project and its' outcomes in advancing sustainability;

and next steps; 3) *views on the outcomes of participation in the project*: impacts on individuals' own perspectives on sustainability; changes in individuals' own interest in CS; know-how related to EA and CS; individuals' own wishes related to the implementation of CS; individuals' own interest in promoting sustainability thinking and ability to do so; and sustainability aspects and future job role; and 4) *own engagement*: motivations and possible hindrances and enablers. These topics were discussed openly based on the interviewees' experiences and expectations. This approach allowed rather flexible conversations to take place while still ensuring that all the key issues and interview themes were covered with each interviewee (e.g., Vaivio, 2008).

3.3 Data analysis

When analysing the interviews established procedures for qualitative content analysis with three interlinking phases were utilised (e.g., Miles & Huberman, 1994). First, all of the interviews were thoroughly read, and, to condense the data, open coding of the empirical material was initiated. The aim was to look for the interviewees' perspectives on CS and how they described their own expectations of and roles in CS issues when sustainability aspects were introduced into their own daily work. Based on the content of the coded text instances, distinct differences in the interviewees' perceptions and reflections, depending on their sustainability-oriented background, could be discerned. Consequently, it became of interest to categorise the participants as 1) ambassadors vs 2) non-ambassadors, with ambassadors referring to individuals who, prior to the EA project, already had a strong sustainability-oriented background and non-ambassadors meaning individuals with little or no former familiarisation with sustainability issues. These two categories were based on the interviewees' descriptions about how they became involved in the project in the first place and their own motivation for being involved. The initial situation was used in the categorisation; in other

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words, possible development towards becoming an ambassador during the project did not affect the categorisation. Finally, through the lenses of the theoretical framework, the identified categories and the effects of the routes to PO of CS were deliberated.

The analysis process was facilitated by the Atlas.ti 9 Mac software. Since the subjectivity of coding and analysis poses challenges for qualitative research, special attention was paid to contrasting and comparing the central arguments. The sensitivity of the analysis and interpretation was supported by the researcher's participant observations and long, solid management accountant experience in MNEs (Vaivio, 2008). A number of interview citations are presented in the findings section to increase the transparency of the data analysis and to make it easier for the reader to evaluate the interpretations.

4 Findings

This section introduces in more detail how the three routes to PO of CS affected the individual-level PO of CS when sustainability aspects were brought into the EA project participants' daily work. In addition, the identified categories of participants as ambassador vs non-ambassador (expressed in quotations with A or N-A) are elaborated further in a separate sub-section.

4.1 Having control

Since the EA project had a focus on the environmental accountability of the MNE's products, linkages between CS and employees' own work tasks were available to all the participants in the EA project. Given the development of PO of CS, such linkages provide a good basis for the route of having control to become activated or strengthened. Based on observations and interviews, having sustainability aspects in one's own work can particularly affect the route of having control through feelings of having an impact, sensing one's own work as useful, utilising one's own capabilities, and witnessing progress in promoting sustainability.

The importance of having an impact could be distinguished through observations of the project group. During the first common meetings of the project governance group (originally 11 persons, increasing to 14 as additional research centres joined) the discussion turned quickly to the effectiveness and usefulness of the project's outputs in terms of sustainable development. The group talked, for instance, about the big picture of CS, the necessity of EA, the next steps needed, and how these steps could be implemented. From the discussion, it was possible to detect increasing enthusiasm for the topic. Having this collegial group exchanging experiences and openly discussing individuals' own doubts about the usefulness of the work seemed to support each participant's commitment to working on CS. From a PO perspective, the collegial group discussions supported the feeling of belongingness. Similarly, in the interviews the opportunity to exert an impact and the usefulness of one's own work were emphasised.

It is a new topic. So to spread the knowledge to people about this is what is giving me more motivation. OK, I know that I have understood this [LCA/EPD]. Now I want to show people what I understand because I see that around me there is not this knowledge. That's what motivate me. (N-A, Interview 6)

Many interviewees felt satisfaction in being able to utilise the competences that they had gained earlier, not only in the current EA project but also in advancing CS in a broader sense. Those with a technical background and who had been working in R&D, could easily connect their competences to a more sustainable product design. From other perspectives, some highlighted their networking capabilities as being useful in spreading CS awareness, and others mentioned managerial experience.

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Also due to my experience, I think I can inspire my team. I can collaborate with my team for them to become real players for the future, to really grow in the very spirit of sustainability ... we have very appealing years ahead as there will be many challenges in modelling our business. (N-A, Interview 2)

In general, the interviewees had a positive attitude towards regulations and standards that aim to improve environmental accountability. They were considered as necessary catalysts in promoting sustainability. Besides pushing people and companies towards sustainability actions, they were also seen to create visibility and transparency for the sustainability transition process. Importantly, they provided a sense of legitimacy to act. However, when specifically discussing the usefulness of the project outcomes, LCAs and EPDs, many interviewees expressed their doubts. They were dissatisfied with the complexity and vagueness of the relevant standards and the private, business-oriented certification bodies (programme operators). This seemed to undermine their confidence in the usefulness of the LCAs and the EPDs produced in the project and thus possibly decreased the strengths of the route of having control.

Unfortunately, I'm really disappointed about this issue because of the programme operators. This is the mistake of the European regulation ... they have given licences to programme operators and also within the programme operator for the verifiers ... so even the product category rules are not comparable ... But some of the working communities are working on it very seriously. Maybe we need time. I'm guessing approximately two years, three years maybe. (A, Interview 10)

Most of the participants in the EA project wanted to see progress in terms of sustainability, and concerns about the slowness of progress were repeated in various discussions of the project meetings. Because LCAs and EPDs actually describe the products' current impact on the environment, they only provide a baseline and a point of comparison when products are designed to be more environmentally friendly. That is why many were waiting impatiently for the management to decide on the next steps and goals. Furthermore, during the interviews, many raised the necessity of next steps, and expressed their concern that the needed changes would not be implemented, at least not in full. Consequently, the usefulness of individuals' own efforts was questioned.

I think that I can do whatever I want, any kind of effort, but I think that until the big guy solves this, decide to put attention and focus on this aspect, the environmental effect of our choices will not be so important in the industry. (N-A, Interview 11)

From the PO point of view such feelings of insufficient power, are likely to undermine the route of having control.

4.2 Deep knowledge

The interviewees generally agreed that increasing CS awareness, not only their own awareness but that of the entire company and society in general, is a key factor in promoting sustainable development. They also raised the need to understand CS more deeply. It was clear from the interviews that especially the non-ambassadors felt that their own attitudes towards CS have changed with the new knowledge and understanding that they have gained while working on the EA project. Many non-ambassadors said that they now follow the sustainability discussions of various forums with increased interest, and that they look at the sustainability

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communication of various companies with fresh eyes. Their claims to have become more sensitive to sustainability in both their professional and their private life demonstrate the impact of gaining deep knowledge in arousing PO of CS.

The project management had a clear goal that everyone would understand the relevance of LCAs and that the EA project's connection to sustainability would be obvious to everyone participating in the project. Nevertheless, there were a few participants who had missed out on proper training. This, and the fact that orientation material was widely available, indicated the challenges of communication in an MNE environment. It also revealed that understanding the overall picture of sustainable development and combining it with concrete work are important for individuals as well as being a central activator of the route of deep knowledge.

The biggest problem for me from the beginning was that we didn't have some specific training about LCA or sustainability topics in industry. We only got training about the software. There was a small theoretical part, but we didn't have anything specific like, for example, LCA, how to approach this? What's the purpose? ... All the knowledge that I have right now about the topic, sustainability or LCA, I've got because I wanted to know. That I was searching on my own. (N-A, Interview 9)

In addition to challenges of communication, an MNE environment typically poses challenges regarding time. Time as a critical resource was emphasised in the speeches of those working both in the EA project and in product development projects; time is needed when developing deep knowledge. One could perceive a sense of frustration about not having enough time to gain sufficient understanding of more sustainable design.

We really need to have some kind of research understanding about the change of the material, about how to have better materials, what materials to use ... if I had more time, I'd be really happy to follow up, to understand, to fight for the alternative solutions. But unfortunately, I'm not able to do this...I have to contribute my time towards the main projects. (A, Interview 5)

Many interviewees considered the possibility to gain a deep understanding about CS, especially regarding the product-related environmental aspects, as the most rewarding part of their work. Some also gave examples of how their own interest in CS had grown with the increased knowledge acquired in the EA project.

It was quite a surprising result for the *product* which we have developed ... I understood that when we are removing a *material* which is not good for our environment ... maybe we are on the other hand adding much more material which is also affecting the LCA results. I would say that was the first time I really got interested. (N-A, Interview 18)

Several interviewees emphasised the importance of scientific research when considering sustainable development and the environmental impact of products. In their opinion, awareness should be built specifically from a theoretical perspective; what is the background, the reasons for talking about CS, the origin of the numbers, comparability, and so on. These interviewees stated that they are drawn to data and mathematically expressed facts. Also, one interviewee expressed a need to connect knowledge to technical aspects.

That is the way I am set up. I like learning new things. So when there is a problem, I like to bring it to a technical aspect and work on technical aspects. (N-A, Interview 16)

Another interviewee (N-A, Interview 6) said that he enjoyed tremendously being able to prepare studies on a product in his work and thus to gain a true understanding of its environmental impacts. Undoubtedly, such a deep appreciation of knowledge supports the development of PO towards an object and, in this case, towards CS.

4.3 Investing the self

A genuine concern about the environment and the megatrends threatening our planet seemed to be a driver for many, especially for those with an ambassador background, to participate in the EA project. However, these concerns were not a “privilege” of the ambassadors. It could be observed that the awareness was rapidly increasing among the non-ambassador participants, and, during the interviews, several non-ambassadors expressed their willingness to work on sustainability-related tasks in the future. The following non-ambassador quote shows that working on the EA project has significantly increased the interviewee’s awareness of and concern about sustainability. Furthermore, from the point of view of developing PO of CS, it implies a strengthening of the route of investing the self. It also indicates that the two other routes of developing PO of CS would have become activated as well. Indeed, it is typical that different pathways of PO generation can be active at the same time and that they actually support each other when generating PO for the same target.

The world is changing and the environment is changing ... It’s becoming worse because of our action and our choices. If one is aware of this and starts thinking that, with my choice, I can improve the situation ... maybe this is the main reason that makes me continue to work in this field of [LCA/EPD] study. Because with the study, with my effort, I would be able to help the world to get better and not worse. (N-A, Interview 11)

Having the management's support is a central factor for any changes in corporate practices to proceed. Many interviewees felt that the attitude towards CS has developed in recent years and that today the management perceives the necessity of sustainability practices in a new way.

The mindset is changing of people whom I can see – all the managers are behind it [sustainability], so there is no manager who would say we don't have a benefit from it or it is only a cost, leave it ... we have the full support from the highest level of management here in *country* and it's very helpful for us because of our work. They say that the work is valuable. (A, Interview 14)

Several interviewees directed particular attention to the efforts of both high- and mid-level managers in communicating the importance of topics related to the EA project. Management support communicates the existing mandate and emphasises the importance of one's own work, both of which are key ingredients for activating the route of investing the self. Additionally, if a person can feel that their work is of interest not only to the management but also to the rest of the organisation, the feeling of empowerment will probably increase even more.

We were having a day with the whole supply chain organisation where we had presentations and discussed different topics ... I held a short presentation about what sustainability in supply chain management means and where we are today and what is coming ahead. And I really felt that people are interested, really open to it and like ready. (N-A, Interview 12)

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However, differences in the maturity level of CS awareness in the MNE locations of the participants could be distinguished from the discussion in the common project meetings. Furthermore, it was noticeable that the resourcing of the project was more challenging in some project units, although the overall turnover of project personnel during the observation period was quite moderate. On an individual level, some of the interviewees experienced that the local organisation and their own superiors did not appreciate the project.

Nobody knows how to handle it. So they just put it to me as a side project. Because this is always like very easy to reject: Yeah, you can guide it, no problem. You can manage it only on coffee break. (N-A, Interview 7)

This kind of feeling of a lack of support and appreciation is likely to hinder the development of the route of investing the self and undermines even the willingness to work on the project.

Based on the discussions, even if a person values their own work being related to the promotion of sustainability in a company, it is most probably not enough for this person to commit to the work in question. Many interviewees identified the importance of an opportunity to approach the CS topic through their own interests, and utilise or develop one's their own expertise in their own work. Such an opportunity can be seen as a key factor for the route to invest the self to be seriously activated. It is highly likely to increase the readiness to work on the topic, in which case the routes of developing deep knowledge and having control will have a chance to strengthen. In terms of promoting CS, this set-up could also effectively support the necessary innovative and autonomous thinking.

I have a lot of thoughts about the way to design things and maybe also some ideas popping up about how to extend the life of products so they can operate longer on the

market and you don't really need to produce the new thing. Which is, well, usually a burden of all the supply chain and manufacturing, which is having a footprint. If you extend life, you start to enter very interesting topics ... my love of sustainability comes more from my love of technical aspects. It's not like the substance itself. (N-A, Interview 16)

Additionally, it could be noted that having enough complexity and variation in the one's own work may be an important factor for the route of investing the self to become activated. Several of the interviewees highlighted CS as being a complex and new, interesting topic. Many of the non-ambassador project participants had ended up in the project not with advancing CS in mind but rather due to the interest in trying to work on something totally new. Simultaneously, many of these curious participants who were willing to invest their time in the EA project also developed an interest in advancing CS.

It is so diverse from my other responsibilities. But I really like it because it adds to my experience as an engineer in an area that I was not familiar with. I always heard about the carbon footprint, carbon neutrality, but now I'm part, like you and other colleagues, of this great commitment that we have in *our company*. (N-A, Interview 2)

Correspondingly, the negative effect of too narrow a job description on commitment was manifested, for example, in the speech of a part-time employee. For him, the task description in the project had become quite narrow and routine, and he himself was not able to influence it much. The development of CS's PO through the route of investing the self is quite unlikely in such situation.

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If it would be like that I can improve myself with these IT skills for example [in the project], then it would be great. But now I'm not sure that this is the case. Maybe in future. If it won't be that much different, then anything else will be more interesting for me ... There should be something where I can use my creativity or where I can improve my skills somehow. Because now this is missing in my job. (N-A, Interview 4)

4.4 *Ambassador vs non-ambassador*

Based on the observations and interviews, it was possible to identify certain differences between the viewpoints and attitudes of ambassadors and non-ambassadors. Therefore, it is of importance to examine these differences in more detail through 1) the maturity level of PO of CS, 2) individual motives, and 3) the dynamics between ambassadors and non-ambassadors.

4.4.1 Maturity level of PO of CS

Ambassadors felt no hesitation about whether our planet is at risk or whether a sustainability transition is necessary. Rather, they were worried about whether the transition would be too slow or whether it would even be possible anymore. When interviewing, it was noticeable that it was also important for them not to fall into despair or pessimism. To avoid the feeling of powerlessness, almost everyone said that they deliberately tried to limit their thoughts to what they could influence. Accordingly, the route of having control can also play an important role in maintaining their PO of CS. However, among the non-ambassadors, there were a few doubtful voices that questioned the relevance of CS.

This is like a modern [topic]. Now it is about everywhere that people are speaking about sustainability. Maybe after 2–3 years everybody will forget about it. (N-A, Interview 1)

Although every interviewed ambassador saw that MNEs play a significant role as promoters of sustainable development and that the contribution of MNEs is really needed, most of them felt that connecting sustainability to business was challenging. They struggled with the notion that the promotion of sustainability would be in a subordinate position to the promotion of business.

They [companies] will always try to do business with it. And this is what is a bit dangerous. I think that we are not really trying to save our planet. I think that we are just trying to solve our business. So this is what is a bit dangerous in this case. But of course it's is really good, because if the companies don't start working in sustainability, I honestly don't see a future for new generations. (A, Interview 3)

On an individual level, one ambassador revealed that, rather than the business, she especially enjoyed the opportunity to touch the reality of sustainability in her work.

Contrary to ambassadors, for non-ambassadors, connecting business with sustainable development seemed to be more straightforward. They did not notably question the subordinate position of sustainable development but rather sought justification from business cases to advance sustainable development. Considering PO of CS, some different views of ambassadors and non-ambassadors about combining business and sustainable development are interesting. For the ambassadors, the possible contradictory feelings about the relationship between business and sustainability hardly affect the already-existing PO of CS. For those who better accepted the business orientation in the implementation of sustainability, the customer demand seemed to be a focal factor for triggering sustainability thinking – it legitimised investing the self in CS.

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In that [product] perspective, it is absolutely essential to understand our customer behaviour, what they want; to speak with them, to understand where they are going, what they need in the future. Because, to me, only this is a justifiable parameter that can say something. If these needs of recyclability, CO₂ emission material, and so on are not clearly justified by interviews of inner customers, really in market research ... I would just not accept it. (N-A, Interview 15)

At best, innovating new solutions, participating in solving customers' sustainability problems, and meeting customer requirements are likely to stimulate all three routes towards PO of CS. However, when relying heavily on customer requirements, one result might be shifting the responsibility of the sustainability transition to them, and consequently even dampening the routes of PO of CS.

4.4.2 *Individual motives of PO of CS*

During the interviews, ambassadors talked openly about their own interest in sustainability. It was apparent that they already had quite a strong PO of CS and that they were strongly motivated by the possibility to work on promoting CS. Especially environmental sustainability had become a central value for them, expressing their *self-identity*. Advancing sustainability provided them with an opportunity to feel an emotional connection between themselves and their past, and working on CS offered a chance to maintain the continuity of the *self-identity*.

I think this sensibility to environmental issues was always there because of the area where I grew up and also because of the fact that we have always thought about it. That's cool also. So it started when I was a kid, and then it just continued. I decided to study

energy engineering because I wanted to work in the renewable energy field and I moved towards sustainability. (A, Interview 13)

The interviewed ambassadors felt that they could drive sustainable development most effectively by working on CS in a large company. They highlighted that, while the operations of MNEs typically have a large impact on the environment, changing MNEs' operating methods or products to be more environmentally friendly has a global impact.

I know that our products have a huge impact on the environment and if we do something good, if we really do products with lower environmental impact, it is impacting directly on the nature. For me, this is a big motivation, because it's not like we are changing a little bit, we have a lot of things that we can do ... Maybe I sometimes think I should go to some reservation of corals ... but in this job, if we do products with a lower environmental impact, it has a huge impact. This is motivating me pretty much, to have the biggest impact I can have. (A, Interview 3)

One ambassador pointed out that in a different way from small companies, MNEs' have the resources to promote sustainability issues seriously. She suspected that, in small companies, the promotion of CS would inevitably be reduced to a mere sustainable development marketing campaign, which she found completely uninteresting. Obviously, being able to influence and seeing the impact of their work in an MNE for the benefit of the environment was an important motive for the ambassadors. For them, PO already seemed to be rooted in both *self-identity* and *efficacy* motives.

For the non-ambassadors, the starting position when entering the EA project was somewhat different. Most of them had not thought much about sustainability issues and some

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not at all. At the time of the interviews, there were a few non-ambassadors who viewed the EA project as a very technical matter and who reflected less on the necessity of sustainability. They did not see the promotion of sustainability as becoming an important part of their own future work. However, most non-ambassadors expressed that their attitude towards sustainability had changed during the project and that related issues had become important to them. Many also hoped that they could, at least to some extent, work on sustainability issues in the future. Similarity to the ambassadors, working on CS issues in the EA project seemed to have stimulated many non-ambassadors' *efficacy* motive.

Definitely, this is motivating me. To gain the results and the improvements and to have this sense of purpose ... I like how working with sustainability creates this sense of purpose with the job. (N-A, Interview 12)

In addition, the presence of the motive of *having a place* could be detected in these non-ambassadors' speeches about having purpose in work and the feelings of being part of something bigger.

4.4.3 *Observations of the project team dynamics*

In the EA project, the discussions between the different participants were typically very topic oriented, emphasising the scientific basis and researched knowledge. In the joint meetings, there was no discussion about the necessity of promoting CS itself; it was rather seen as the starting point of the entire project. For the ambassadors, such a set-up most probably facilitated their more value-oriented income angle. Although, during the interviews, the ambassadors expressed some frustration that the CS awareness of people in the business organisation is at such different levels, based on the observations, increasing the CS awareness of non-

ambassadors in the project team was a valued task. Many ambassadors utilised the opportunity to spread CS awareness among non-ambassadors and seemed happy when the “family” was growing.

The ambassadors’ different attitude towards CS’s subordinate relationship with business was hardly visible at any stage of the project. The ambassadors seemed well aware that working in a company sets certain conditions for the rhetoric used and gives CS a framework for action. Presumably, they estimated that acting from the inside of the company gives them more opportunities to influence the shaping of CS. In almost every formal conversation, business was brought into focus. In smaller discussion groups, in more informal discussion contexts, it was also possible to discuss the contradictions between sustainability and business. However, it is noteworthy that such discussions involved both ambassadors and non-ambassadors in good agreement.

5 Discussion

Kurki and Lähdesmäki (2023) suggested that concrete CS linkages to employees’ own work is a central factor in developing their PO of CS. This case study provided empirical evidence on how adding sustainability aspects through EA to personal work stimulates the routes of PO of CS, although the effects are nuanced. Noteworthy, the findings showed that individual PO of CS is likely to be aroused/increase when sustainability aspects are incorporated into personal work, regardless of whether the individual has a sustainability ambassador or non-ambassador background. §Additionally, the findings demonstrated the instrumental value of EA tools in engaging employees in promoting CS. EA offered a very concrete and numerical approach to CS, which clearly appealed to the participants. In particular, LCAs were seen to support a scientific approach when aiming for more sustainable environmental outcomes. This notion

provides an incremental aspect to the discussion of the usefulness and effectiveness of EA (see Bebbington et al., 2023; Deegan, 2017; Garcia-Torea, et al., 2023).

5.1 PO of CS and own work

Effective implementation of CS requires the engagement of all employees. While a strong, individual-level PO of CS is a precondition for the development of sustainability thinking (Kurki & Lähdesmäki, 2023), it is essential for the translation of CS strategies into practice. The findings demonstrate the importance of embedding CS aspects into daily work tasks; through appropriate job design, and with sufficient organisational support, the routes of individual-level PO of CS can be effectively stimulated.

Embedding CS into job design provides good opportunities for such participation and concretization that help individuals to understand their own possible role in and impact on the sustainability transition. However, a sufficient level of perceived complexity and variation is also required to stimulate the routes of PO of CS effectively. Furthermore, as employees are driven to engage and disengage in unique ways, depending on their current state of engagement, opportunities to approach CS through one's own interests and expertise and allow autonomous reflection are essential. While, for some, concern about the state of the environment acts as an important driver, for others, exercising leadership skill or solving technical issues may be a strong stimulator. Thus, embedding CS always requires a continuous adjustment to the perceptions and work situation of the employees in the organisation (van der Heijden et al., 2012). As Bhattacharya et al. (2022) highlighted, autonomy in sustainability issues becomes particularly important "as it allows employees to take the broad call to ethical action, and then enact in the ways they are best able to and best see fit". In the same vein, Glavas (2016a) showed that an opportunity to work in accordance with one's own values and

interests (as the whole self) positively affects the relationship between CS and employee engagement.

5.2 Meeting tensions

When considering CS issues, employees often encounter tensional features that originate from the complexity of CS (Carollo & Guerci, 2018; Hahn et al., 2015; Van der Byl & Slawinski, 2015). At the individual level, tensions are usually caused by the corporate's short-term versus long-term orientation or differences between a personal and an organisational sustainability agenda (Hahn et al., 2015, 2023). Such tensions may be reinforced even further through institutionalised professional thinking (Sabini & Alderman, 2021). For instance, management accountants are recognised to have difficulties in broadening their mindset towards CS issues because the assumptions of standard economic theory are typically considered as self-evident within the profession (Lukka & Becker, 2022). Furthermore, the determination of sustainability indicators is subjective and political in nature, while management accountants are generally considered to be representatives of objectivity (Bebbington et al., 2007). Simultaneously, sustainability leaders are likely to experience somewhat different tensions when they are forced to accept that the organisation's overall capacity for sustainability thinking is at a different (lower) level than theirs (Girschik, 2020; Hunoldt et al., 2020; Wright et al., 2012). Consequently, projects with CS aspects are dependent on a dynamically occurring process involving interactions between competing logics, organisational/professional identities, and individual-level processes that are affected by participants being ambassadors vs non-ambassadors (Corbett et al., 2018).

For nearly all the participants in the EA project, it became important to experience progress in advancing sustainability. Accordingly, the participants felt tensions because of doubts about the adequacy of actions and the timespan for obtaining results. Similar to the

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notions of Carollo and Guerci (2018), the participants seemed to tackle their frustration by becoming “patient believers”, waiting for when, in the long run, businesses will be able to respond to the challenges posed by CS. As regards tensions related to different levels of CS awareness among members of the organisation (Girschik, 2020; Hunoldt et al., 2020; Wright et al., 2012), some frustration about not “reaching out the CS message to everyone” or not gaining the needed priority from the other organisation members for the project work could be recognised. However, it became visible that the ambassadors appreciated the opportunity to spread CS awareness among the employees who were less familiar with CS. This occurred regardless of whether the employees were part of the EA project team. Accordingly, the ambassadors seemed to accept potential tensions related to different levels of employees’ CS awareness rather than considering them as a burden.

In addition, in line with previous studies (e.g., Carollo & Guerci, 2018; Wright et al., 2012), the findings revealed that especially ambassadors tend to have contradictory feelings about the relationship between business and sustainability. Wannags and Gold (2020) suggested that, when the individual agenda is more sustainability oriented than the organisational agenda, individuals may feel like outsiders in their own organisations. However, it is not likely that the developed PO of CS will decrease because of such contractionary feelings. Rather, it might become a question of ambassadors’ willingness to commit to a specific company. The findings showed that ambassadors tend to evaluate companies as possible employers based on whether they can offer genuine opportunities for driving sustainability.

If, again, the organisational agenda is more sustainability oriented than an employee’s agenda, the sustainability agenda cannot simply be imposed on the employee (Wannags & Gold, 2020). The developing attitudes towards CS of the non-ambassadors participating in the

project showed that embedding EA in personal work can provide an effective way for employees to become sensitised to the reasoning and relevance of CS.

5.3 Practical implications

It is well known that having the management's support is a central factor for any changes in corporate practices to proceed. The findings of this study showed that besides high- and mid-level management support and appreciation, an interest from the overall organisation acts as an important enabler for individuals to engage in CS topics through work. Especially empowering is having a collegial group for exchanging experiences and openly reflecting on thoughts (as well as doubts) around CS issues. Moreover, with the MNE context, this case study showed that an international project team has an important role in acting as a counterweight to different cultural, organisational, and individual maturity levels regarding CS, thus empowering participants to commit to CS issues. Nevertheless, the findings also revealed, lending support to the notions of Kurki and Lähdesmäki (2023), contradictory effects on the development of PO of CS due to different individual-level expectations and experiences of organisational and management support.

It is important to notice that the inherent complexity in CS will not disappear despite developing PO of it. Employees' ability to respond to or manage CS-related tensions and engage in controversial CS initiatives depends on the interplay between the type of tension that they perceive, their cognition, and their organisational location (Hahn et al., 2023). However, the present study indicates that developing PO of CS may also equip the employees to accept and manage better the contradictory characteristics of CS. Managers have a critical role in determining how their employees can be empowered to take ownership of CS (e.g., Carrington et al., 2019). This study shows the advantages of embedding CS in the daily work of the employees and the relevance of job design. Opportunities to participate in sustainability-related

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tasks, for instance through piloting or benchmarking, could be a powerful tool for increasing employees' commitment to CS (Kurki and Lähdesmäki, 2023). Furthermore, as confirmed by this study, knowledge sharing through networks and cooperation act as a valuable means to improve employees' CS orientation. Chams and García-Blandón (2019) found in their literature review that job rotation addressed by human resource management is an essential tool to generate sustainability competencies; training combined with job rotation both concretises and increases the intensity of the association and thus influences the outcome. Finally, the project set-up, as demonstrated in this case study, can offer opportunities to combine multifaceted ways of reshaping job design. In addition, the dynamics of the studied project team, that is, the dynamics between employees with different backgrounds, motivations and skill levels in their relationship to CS, indicated that a diverse group with a common task can be a fruitful basis for developing personal CS commitment.

6 Conclusions

This empirical case study, with the theory of PO as the focus driver and participation in an EA project as an intervention, contributed to the business sustainability and EA research by providing new theoretical and methodological insights into the process through which individuals become engaged in promoting business sustainability – a key process when moving from aspiration to action. Importantly, it shed light on how the processes that influence employee engagement in promoting CS can be developed. Contributing to the recent calls by Correa et al. (2023) and Garcia-Torea et al. (2023), the study presented empirical evidence that adding sustainability aspects through EA to personal work stimulates the routes of PO of CS, although the impacts are nuanced. Noteworthy, the study showed that, regardless of whether an individual is already strongly committed to sustainable development (i.e., an ambassador)

or whether sustainability thinking is relatively new to them, PO of CS is likely to be aroused/increase when sustainability aspects are incorporated into personal work.

From a managerial standpoint, the study demonstrates how job design influences employee engagement and how it could be capitalised on to support the sustainability transition of corporates. It also offers a new understanding of the consequences of individuals having different maturity levels in their relationship to CS.

It should be acknowledged that a single qualitative case study also incorporates certain limitations. Validation in interpretive studies is a matter of convincing the readers of the authenticity of the research findings and at the same time ensuring that the explanations are credible (Lukka & Modell, 2010). For this reason, authenticity and plausibility were carefully addressed in the interpretation by combining rich and thick empirical data with careful theoretical analysis using PO theory as a method theory (Lukka & Vinnari, 2014). Furthermore, although there are valuable lessons for practice, we should be careful about overly generalizing the results. Thus, to gain an even better understanding of the development of employee engagement in CS, future research on the effects of various contextual factors, such as the company size, industry, and organisational culture, would be beneficial. Moreover, building on the research approach utilized in this study, it could be of interest to investigate various practical means and ways for stimulating psychological ownership routes and examine their effects on enhancing employee engagement in sustainability initiatives. Finally, while individual values, preferences, and backgrounds play a role in the emergence of PO, future research should explore these impacts further in the CS context.

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