UNIVERSITÀ
DEGLI STUDI
DI BRESCIA

DEPARTMENT IN ECONOMICS AND MANAGEMENT

PhD IN

BUSINESS AND LAW - INSTITUTIONS AND BUSINESS: VALUE, RULES AND SOCIAL RESPONSIBILITY

Scientific and disciplinary sector
SECS-P/07 Business Administration and Management

CYCLE
XXXVIII

SCALING SMALL ACTIONS INTO GLOBAL GOALS: A MIXED-METHODS STUDY OF HOW RELATIONAL LEADERSHIP AND LEADERFUL PRACTICE, AMPLIFIED BY DIGITAL TRANSFORMATION, ACHIEVE ESG AND SDG OUTCOMES IN SMES

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ABSTRACT (ENGLISH)

This dissertation examines the disconnect between Small and Medium Enterprises' (SMEs) inherent relational strengths and the formal requirements for measurable Environmental, Social, and Governance (ESG) performance aligned with the United Nations Sustainable Development Goals (UNSDGs). SMEs often outperform other types of firms due to their unique combination of informal structures, flexibility, and established networks. However, the formalized structure of sustainability reporting and compliance with ESG regulations undermines these strengths. The research presents and evaluates a new framework, the Relational Integrated Bridge, designed to enable SMEs to leverage existing relational capacity to benefit both the organization and key stakeholders.

This study develops an original, novel, and empirical theoretical framework that integrates Relational Leadership Theory (RLT) and Leaderful Practice (LAP) dynamics. These dynamics often exist organically within SMEs but remain formally unacknowledged. The framework posits them as mutually constitutive rather than discrete approaches. Within this framework, Relational Leadership Theory (RLT) provides the diagnostic lens for understanding leadership as an emergent social process. Leaderful Practice (LAP) offers the prescriptive blueprint through its Four C's: collective, concurrent, collaborative, and compassionate leadership. In addition, the study investigates how Digital Transformation scales both leaderful and relational practices into measurable ESG outcomes through formalized structures (i.e., an organization's capacity to measure ESG outcomes).

An explanatory sequential mixed-methods design (QUAN → qual) was used in this cross-cultural research to compare listed SMEs in Italy (n=43) and Pakistan (n=54). The quantitative analysis revealed statistically significant relationships between relational leadership, leaderful practices, digital transformation, and ESG performance. This was demonstrated through robust statistical measures, including regression analysis, which confirmed the strength of these predictive relationships. The findings from the qualitative analysis of four matched case studies provided further insight into the ways each country approaches the implementation of digital transformation. While Italian SMEs adopted a cautious-facilitative approach, heavily structured in integrating

digital technology into their business models, Pakistani SMEs took a more pragmatic, informal approach through organic means.

The results indicate that SMEs have the capacity to systematically harness their innate "leaderful" potential through a purposeful digital architecture that enables sustainable performance. The Bridge Model illustrates that relational leadership lays the foundation for developing leaderful practices and that digital transformation can help SMEs cross the Relational-Performance Gap. This study offers new insights into theory by integrating Relational Leadership Theory (RLT) and Leaderful Practice (LAP). It provides tangible suggestions for SMEs and policymakers interested in developing their social capital and leveraging digital resources to achieve sustainability objectives.

The conclusion of this dissertation indicates that small to medium-sized enterprises (SMEs) develop sustainability through an organic, relational process that leverages their existing social assets, rather than by importing external leadership models; however, a designed digital architecture is necessary to achieve a scalable, measurable impact. This offers a replicable framework—the Relational Integrated Bridge for transforming inherent relational potential into formal ESG Performance, thereby making a tangible contribution to the global Sustainable Development Goals (SDGs).

Keywords:
Relational Leadership Theory, Leaderful Practice, Digital Transformation, ESG Performance, Small and Medium Enterprises (SMEs), Sustainable Development Goals (SDGs), Mixed-Methods Research, Relational-Performance Gap

ABSTRACT (Italian)

Questo studio sviluppa un quadro teorico originale, innovativo ed empirico che integra la Relational Leadership Theory (RLT) e la Leaderful Practice (LAP)—dinamiche che spesso emergono organicamente all'interno delle PMI ma che rimangono formalmente non riconosciute—proponendole come approcci mutualmente costitutivi piuttosto che discreti.

All'interno di questo quadro, la Relational Leadership Theory (RLT) fornisce una lente diagnostica per comprendere la leadership come un processo sociale emergente. La Leaderful Practice (LAP) offre il progetto prescrittivo attraverso le sue Quattro C: leadership collettiva, concomitante, collaborativa e compassionevole. Inoltre, lo studio indaga come la Trasformazione Digitale amplifichi sia le pratiche leaderful sia quelle relazionali, trasformandole in risultati ESG misurabili attraverso strutture formalizzate (ad esempio, la capacità di un'organizzazione di misurare i risultati ESG).

In questa ricerca interculturale, che adotta un disegno sequenziale esplicativo di metodi misti (QUAN → qual), lo studio ha confrontato le PMI quotate in Italia (n=43) e in Pakistan (n=54). L'analisi quantitativa ha evidenziato relazioni statisticamente significative tra la leadership relazionale, le pratiche leaderful, la trasformazione digitale e le performance ESG. Ciò è stato dimostrato attraverso robuste misure statistiche, tra cui l'analisi di regressione, che ha confermato la forza di queste relazioni predittive. I risultati dell'analisi qualitativa dei quattro casi di studio abbinati hanno fornito ulteriori approfondimenti sulle modalità con cui ciascun Paese affronta la trasformazione digitale. Mentre le PMI italiane hanno adottato un approccio cauto-facilitativo, fortemente strutturato nell'integrazione della tecnologia digitale nei loro modelli di business, le PMI pakistane hanno adottato un approccio più pragmatico e informale, in modo organico.

I risultati indicano che le PMI sono in grado di sfruttare sistematicamente il loro innato potenziale "leaderful" attraverso un'architettura digitale progettata per abilitare una performance sostenibile. Il Modello a Ponte illustra come la leadership relazionale ponga le fondamenta per lo sviluppo di pratiche leaderful e come la trasformazione digitale possa aiutare le PMI a colmare il divario Relazionale-Prestazionale. Questo studio offre nuove prospettive teoriche integrando la Relational Leadership Theory (RLT) e la Leaderful Practice (LAP). Fornisce suggerimenti concreti per le

PMI e per i decisori politici interessati a sviluppare il proprio capitale sociale e a sfruttare le risorse digitali per raggiungere obiettivi di sostenibilità.

La conclusione di questa dissertazione indica che le Piccole e Medie Imprese (PMI) sviluppano la sostenibilità attraverso un processo organico e relazionale che valorizza le loro risorse sociali esistenti, piuttosto che importare modelli di leadership esterni. Tuttavia, è necessaria un'architettura digitale progettata intenzionalmente per ottenere un impatto scalabile e misurabile. Ciò offre un quadro replicabile—il Ponte Integrato Relazionale—per trasformare il potenziale relazionale intrinseco in una Performance ESG formale, contribuendo così tangibilmente al raggiungimento degli Obiettivi di Sviluppo Sostenibile (SDGs) globali.

Keywords:
Teoria della Leadership Relazionale, Pratica Leaderful, Trasformazione Digitale, Performance ESG,Divario Relazionale-Prestazionale, PMI (Piccole e Medie Imprese), Obiettivi di Sviluppo Sostenibile (SDGs), Metodi Misti, Divario Relazionale-Prestazionale, Architettura Digitale

ACKNOWLEDGEMENTS

My gratitude and praise are directed at Allah, the One Who is the Source of All and Who will continue to exist after everything else is gone. Allah created the universe, the Earth, and all that exists between them. I intend to thank Allah for His grace in my accomplishments and His wisdom in my knowledge, and I am grateful for the constant comfort I have received from His mercy, which has been a continuous strength throughout my journey.

Professor Simona Franzoni, my supervisor, has my deepest and most sincere thanks for the expert guidance she provided regarding Environmental, Social, and Governance (ESG) principles and sustainability as they pertain to my research. Without her unwavering support and wisdom, I would have struggled to develop a solid statistical framework. Her guidance was instrumental in solving several real-world problems and creating work of relevance**.**

I also wish to express my gratitude to Professor Ofelia Palermo for her invaluable assistance and support during my time abroad. The recommendation she made for me to change my thesis title from 'transformational statistics' to 'relational statistics' opened new avenues of thinking for me. Her suggestion, informed by her expertise, helped me move my work in a different direction, enabling me to make a unique contribution to the world that I did not anticipate when I began this research.

Finally, I want to express my heartfelt thanks and love to my husband, Adeel, and my parents. Their unconditional love, steadfast prayers, and profound belief in me have been my constant source of strength and resilience. This accomplishment is as much theirs as it is mine**.**

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INTRODUCTION

Sustainability has transitioned from the edges of the global economy to its Centre (Elkington, 1997; UN, 2015). This shift poses a distinct and pressing challenge for Small and Medium Enterprises (SMEs), the backbone of most economies. The attributes SMEs excel at—informality, flexibility, and relational networks—are often in conflict with the top-down, formalistic requirements associated with measurable ESG performance. In this dissertation, this inherent contradiction is termed the Relational-Performance Gap: the fundamental disconnect between SMEs' innate relational capacity and the formal requirements for measurable ESG performance. SMEs account for a significant proportion of firms in most economies and, collectively, have a substantial impact on economic development and sustainability. However, their inherent informality, resource limitations, and agile structure typically do not facilitate the adoption of traditional, top-down corporate thinking to deliver effective Environmental, Social, and Governance (ESG) performance assessments. Thus, the inherent informality of SMEs provides a natural setting for examining relational, leaderful leadership models in this study.

This dissertation is placed at the confluence of three significant areas to illustrate this tension. First, this study proposes a new theoretical merger with Uhl-Bien's Relational Leadership Theory (RLT), which depicts leadership as an emergent process of relationships (Uhl-Bien, 2006). Additionally, it incorporates Raelin's Leaderful Practice (LAP) (Raelin, 2011), viewing leadership as collective, collaborative, concurrent, and compassionate. The core argument is that within the relational fabric of SMEs, leadership is inherently leaderful. In the informal structures of SMEs, leadership does not solely stem from positional power but instead emerges from the group's capacity in day-to-day relational engagement.

Nevertheless, to transform sustainability from sporadic activity into an enduring organizational capability, this organic relational energy must be intentionally designed and directed—avoiding the power disparities and performative collaboration critiqued in Relational Leadership Theory. This brings us to Digital Transformation (DT**),** where digital tools are not merely technological enablers (Bharadwaj et al., 2013; Vial, 2019; Kane et al., 2015); instead, they are fundamental to the architecture or contingencies of relational sustainability, with the potential to capture, organize,

and scale these natural leaderful practices. Digital tools can be used to develop platforms for collective action, systems for simultaneous participation, and structures for transparent communication, acting as a strategic lever to scale these natural leaderful practices.

Consequently, the primary context of this research is that sustainability in SMEs emerges organically from relational and leaderful foundations but must be designed efficiently as an architecture to achieve sustainable ESG performance in the long term. Suppose SMEs intentionally leverage digital tools to structure their operations. In that case, they can collectively transform informal sustainability motivations into measurable, reportable, and meaningful ESG outcomes, thereby making a real contribution to the SDGs. This research examines the interplay between relational leadership, leaderful practice, and digital transformation in the SME sector.

Theoretical Rationale

To resolve this tension, this dissertation proposes a novel integration of three distinct domains. The theoretical framework articulated in this study is original in its synthesis, extending beyond the more traditionally grounded leadership paradigms. This study purposefully intertwines Uhl-Bien's RLT with Raelin's LAP, conceiving of them not as two discrete theories but as mutually constitutive (Chapter 1). In this integrated view, Uhl-Bien's relational dynamics provide the *generative context*, while Raelin's leaderful practices represent the *observable behaviors* that emerge from it. This convergent lens is well-suited to the SME context, where organizations typically have flatter hierarchical structures and relationally distributed forms of leadership.

This integration can be seen as a bridge over the Relational-Performance Gap: where Relational Leadership Theory diagnoses the gap's source, Leaderful Practice offers the blueprint through its Four Cs (collective, concurrent, collaborative, compassionate), and Digital Transformation serves as the mechanism for building at scale. Sustainable performance - attaining measurable ESG outcomes and addressing SDGs - is the destination achieved by crossing the bridge. This metaphorical framework underpins the empirical investigation that follows.

This brings us to the central conceptual model of this dissertation: the achievement of sustainable performance through the bridging of the Relational-Performance Gap. In this conceptual model, Relational Leadership Theory (RLT) provides the necessary diagnosis of the gap. In contrast, Leadership-as-Practice (L-A-P) provides the prescriptive design for the bridge built from the Four Cs. This dissertation argues that Digital Transformation is the necessary construction apparatus for

SMEs to build this bridge at scale, turning informal relational capacity into formal, measurable Sustainable Performance.

The review of the literature conducted in Chapter 2 clearly uncovered a critical gap: while many studies have scrupulously captured the barriers that SMEs may face when implementing ESG (Sánchez-Medina et al., 2020; Tsang et al., 2023), there is little primary research into the enabling forces that would lead certain SMEs to engage with and navigate these barriers. Furthermore, research on digital transformation in SMEs has typically focused on the role of digitalization for operational efficiency and competitive advantage (Garbellano, 2019; Pirola, Cimini, & Pinto, 2020) and has neglected to consider what may be the potential of digital transformation as a strategic process that enables sustainability outcomes and ethical governance behaviors. Analyzing this possibility, how digital tools might assist in channeling relational leadership and sustainable performance (cf. Kurucz et al., 2017) is the focus of this research contribution.

Research Gap, Research Aims, Research Questions, and Working Hypotheses

Research Gap

As established in Chapter 4, the existing scholarly landscape reveals a definitive, multi-layered research gap. While leadership theory, digital transformation, and ESG in SMEs have been studied individually, the literature tends to treat them in isolation. This siloed approach creates a critical "blind spot" concerning their dynamic interrelation.

The gap is twofold, representing a chasm between theory and practice.

1-Conceptual Theoretical Gap

Currently, literature lacks a conceptual integration of Relational Leadership Theory (which posits leadership as a social and relational process) and Leaderful Practice (which asserts that leadership is a concurrent collective act). This integration is necessary because, while RLT offers a rich diagnostic of leadership as a process, it has also been criticized for lacking a prescriptive orientation that ensures equity. Contrastingly, Leaderful practices offer a needed prescription but are ill-equipped without the relational grounding of RLT. These theories are fundamentally synergistic: the relational fabric of the SME context provides the medium for leaderful attributes to flow organically. Not integrating the two approaches has led to inconsistencies between the two bodies of literature on empirical studies of formalized

leadership systems and informal relational behaviors, which ultimately drive, sustain, and achieve performance in SMEs.

2-Empirical-Practical Gap

To date, no empirical studies have explored the interplay between Digital Transformation as a strategic enabler and the theoretically proposed integrated leadership model (RLT+L-A-P) to ensure that sustainability outcomes are measurable, scalable, and competitively positioned. While the theoretical gap explicitly suggests relational and leaderful leadership are complementary, how DT can provide the architecture to trigger and amplify this synergy to elicit organized ESG outcomes remains unaddressed. Thus, while the theoretical gap diagnoses the *why* behind the Relational-Performance Gap, the empirical-practical gap leaves a void in understanding *how* to bridge it. This study posits that digital transformation provides the necessary architecture to achieve this.

The present dissertation aims to address this gap by proposing and testing a theoretically novel integration of Relational Leadership Theory (RLT) and Leaderful Practice (LAP) as a diagnostic and prescriptive lens. Collectivity, concurrency, collaboration, and compassion are all defining elements of RLT and L-A-P and are expressed through the informal structures of SMEs (e.g., sustainability and ESG performance emerge through everyday interactions). However, to develop these emergent properties into an ongoing capacity, an informed architecture was needed.

This study posits that digital transformation provides the necessary architecture, establishing an active relational environment that offers platforms for collectivity, enacts systems for concurrency, and creates channels for collaborative and compassionate dialogue. This model did not propose that digital tools create leadership outcomes. Instead, these digital tools activate and extend existing relational capacities, transforming informal energy into more formal and measurable ESG outcomes.

Research Aims

This study emerged from the knowledge that, as of today, no study has systematically integrated Uhl-Bien's Relational Leadership Theory and Raelin's Leaderful Practice to understand ESG outcomes in SMEs, and none have examined digital transformation as the main enabling factor in

this process. Additionally, there has been no cross-cultural study of these relationships to understand whether they are universal or context-specific.

The central theoretical contribution of this thesis lies in this three-part synthesis, which was examined through a comparative lens of SMEs in Italy and Pakistan.

To address this dual research gap, this dissertation is organized around the following primary aims.

1. To develop and apply an original theoretical framework integrating Relational Leadership and Leaderful Practice better to understand the distributed nature of leadership within SMEs.
2. To empirically investigate and compare how this integrated leadership model enables ESG implementation through digital transformation in Italy and Pakistan, uncovering the context-specific models (the Pragmatic-Integration and Cautious-Facilitation models) that govern this relationship.
3. To examine the reciprocal relationship between leaderful practices and digital tools across diverse cultural contexts, exploring how national contexts influence the technological facilitation of relational behaviours.
4. To provide context-specific insights for SMEs and policymakers on leveraging social capital and digital capabilities to achieve sustainability goals.

The overarching goal of this research is therefore to identify a replicable 'architecture for activation' model that demonstrates how SMEs can leverage their inherent social capital, structured by digital tools, to achieve systematic sustainability performance.

Research Questions

Based on the original and novel conceptual framework presented in Chapter 4, which addresses the research gap, this thesis is organized around a series of primary and secondary research questions. The research questions were devised to facilitate a systematic exploration of the interrelated dynamics of Relational Leadership, Leaderful Practices, and Digital Transformation in achieving ESG performance within organizations and in achieving the SDGs globally, among SMEs operating in Italy and Pakistan.

RQ1 (Main): What can a relational leadership theory and leaderful practice lens reveal about how Small and Medium Enterprises (SMEs) implement and share Environmental, Social, and

Governance (ESG) measures, through digital transformation, for achieving Sustainable Development Goals (SDGs)?

RQ2 (Sub-question): How does leaderful practice—characterized by collaboration, collectiveness, concurrency of action, and compassion—influence ESG performance shown in sustainability reporting in SMEs?

RQ3 (Sub-question): How do leaderful practice dynamics and digital transformation influence each other in the context of implementing and sharing ESG measures for achieving SDGs in SMEs?

These questions collectively comprise the research's investigative focus, enabling a thorough examination of how organic leadership practices and digital enablers collaborate to achieve sustainability outcomes in cross-cultural SME settings.

Working Hypotheses

Guided by the conceptual framework, the following three hypotheses were developed to examine the relationships among relational leadership, leaderful practice, digital transformation, and ESG performance in SMEs:

H1: Relational Leadership and leaderful practices positively influence the capacity to embed and disseminate ESG measures and support alignment with SDG targets.

H2: A reciprocal relationship exists between leaderful practices and digital transformation, whereby leaderful practices facilitate digital adoption, and digitally enabled systems reinforce inclusive, collective, concurrent, and compassionate leadership behaviors.

H3: Leaderful practice, by institutionalizing collaboration and shared responsibility, improves the completeness, transparency, and stakeholder credibility of SME sustainability reporting (that shows ESG performance toward achieving SDGs).

To bridge this empirical void and investigate these hypotheses, the research followed an explanatory sequential mixed-methods design (Creswell & Plano Clark, 2018)**,** following a QUAN → qual model**.** The first phase was a quantitative evaluation to determine whether these relationships exist (e.g., whether there is a statistically significant relationship between leaderful practice and ESG performance). The second phase was a qualitative phase that examined the 'how' and the 'why,' investigating the processes by which leaderful practices and digital tools interacted

to generate formative ESG outcomes. This systematic inquiry produced an evidence base to establish relationships while also examining the underlying processes, providing a contextually relevant lens into how leaderful practices, when supported by digital tools, lead to sustainable processes.

Research Methodology and Findings

This study employs an explanatory sequential mixed methods design to comprehensively answer the research questions and test the hypotheses, with the full method presented in Chapter 5 and the complete, integrated findings in Chapter 6. This design was used to provide both a statistically validated test of the relationship and a deep contextual understanding of the processes underlying connections in a cross-cultural context. The cross-cultural comparison revealed two distinct implementation models: Italian SMEs demonstrated a cautious-facilitation approach with structured leadership pathways, while Pakistani SMEs exhibited pragmatic-integration characterized by organic digital adoption Crucially, the purpose of this sequential approach was to use the initial quantitative findings to identify significant relationships and cross-cultural differences, which then served as a prioritization framework for selecting cases and shaping the interview protocol for the subsequent qualitative phase. This allowed the in-depth case studies to specifically explain and elaborate on the statistical patterns uncovered in Phase 1.

The research was conducted in two sequential, interconnected phases:

Phase 1: Quantitative Analysis Chapter 6

A cross-sectional survey was conducted on a purposive sample of 97 listed SMEs from Italy (n = 43) and Pakistan (n = 54). The companies involved (to whom the questionnaire was sent) were: 126 Italian listed SMEs and 136 Pakistani listed SMEs. The survey instrument developed for the study was used to measure the study's core constructs: Relational Leadership, Leaderful Practices, Digital Transformation enablement, and ESG Performance. Quantitative analysis was conducted, which tested the study's hypotheses and included:

- Reliability Analysis using Cronbach’s Alpha (α = 0.85-0.92), confirming high internal consistency across all measurement scales.
- Bivariate Correlation Analysis to examine the interrelationships between the core constructs.

- Multiple Regression Analysis to test the predictive power of relational leadership and digital transformation on sustainability reporting outcomes.
- Independent Samples t-tests to compare Italian and Pakistani SMEs and identify cross-cultural divergences.

Phase 2: Qualitative Analysis Chapter 6

In the second phase of the research, four small- and medium-sized enterprises (SMEs) from Italy and Pakistan were selected for matched analysis in a multiple-case study framework. This phase of research aimed to explain the 'how' and the 'why' of the emerging statistical patterns, particularly by identifying digital transformation as a central construct. Data collection was triangulated through semi-structured interviews, non-participant observation, and analysis of sustainability reports. A manual thematic analysis of the data from the three sources, guided by the research questions and the conceptual framework, yielded two distinct models: the Pragmatic-Integration model, largely identifiable with cases from Pakistan, and the Cautious-Facilitation model, largely identifiable with cases from Italy.

This comprehensive methodological approach enabled the research to:

- Statistically validate the hypothesized relationships between the core constructs.
- Explain the underlying mechanisms through rich, contextualized evidence.
- Compare cross-cultural patterns to identify convergences in leadership principles and divergences in strategic adoption.
- Develop and validate an integrated theoretical model capturing the dynamic synergy between relational leadership and digital transformation.

The goal of this dissertation was to examine the Relational-Performance Gap, which refers to the disconnect between the inherent relational strengths of SMEs and their capacity to achieve formal ESG outcomes. Through a cross-institutional, cross-cultural, mixed-methods study, this research generated and evaluated an integrated model in which Leaderful Practice has a leadership architecture and Digital Transformation serves as the strategic avenue for bridging the gap between Relational-Performance outcomes.

The empirical findings reveal a robust explanatory mechanism for the SME sustainability journey, confirming that relational leadership, leaderful practice, and digital enablement are significantly related to how SMEs navigate this path. This holistic methodological approach was key, as it enabled the research not only to validate hypothesized relationships statistically but also to provide rich, contextualized evidence to explain the underlying mechanisms.

This dissertation does more than define the challenges of sustainability for SMEs; it offers a prescriptive, actionable framework. The empirical findings support the bridge model, providing both the design in Leaderful Practice and the construction gear in Digital Transformation to bridge the Relational-Performance Gap. This allows SMEs to achieve sustainable performance through culturally distinct yet equally legitimate paths while systematically drawing on the leaderful potential already within them.

The empirical findings ultimately validate the bridge model, demonstrating that Leaderful Practice provides the essential design, while Digital Transformation serves as the construction gear to cross the Relational-Performance Gap—enabling SMEs to achieve sustainable performance through culturally distinct yet equally valid pathways. The findings also validate that SMEs need not import external leadership models; instead, they can systematically activate their inherent leaderful potential through intentional digital architecture to bridge the Relational-Performance Gap.

CHAPTER 1
RELATIONAL LEADERSHIP AND LEADERFUL PRACTICES

1.1. Introduction to the Chapter

In this chapter, I have laid the foundation for thinking deeply about the perspectives of Relational Leadership Theory (RLT), as presented by Uhl-Bien, M. (2006), and Leadership-as-Practice (L-A-P), Raelin, J. A. (2011), on leadership as a social and collective phenomenon, while considering the potential of both for building sustainable organizations. RLT encourages a shift from leaders to the relationships that comprise leader-follower dynamics (Uhl-Bien, 2006); however, it still confines decision-making to hierarchical power dynamics, while romanticizing relational harmony and diverting attention from the power dynamics and structures of relationships that marginalize voices within the enterprise (Grint, 2010). L-A-P, on the other hand, offers a more radical and far-reaching approach to viewing leadership as a collective social process. L-A-P instead attempts to democratize leadership through the four principles of Collective, Concurrent, Collaborative, and Compassionate action (Raelin, 2011). This model offers the much-needed guidance on redesigning structures, making it an effective tool for achieving the goals that sustainability advocates. In theory, these ideas are empowering. In practice, they bump up against the rigid walls of organizational power structures. We cannot ignore that tension; it is the very obstacle we need to overcome to make sustainability possible.

The primary focus of this study is to challenge the commonly held assumption that relational processes are directly linked to sustainability-related outcomes. The commonly held assumption suggests that a direct pathway exists from relational processes, such as trust and dialogue, to sustainability-related outcomes. However, empirical evidence complicates this assumption. For instance, Foldy et al. (2020) explain that unless organizations were intentional about developing equity actions, such as opting out of prior commitments that made relative and inclusive decision-making impossible with respect to power relations, relational processes could unintentionally recreate exclusion. Therefore, one of my key points in this chapter is that sustainability is not the result of collaborative activity, but rather the outcome of organizations that intentionally redesign

their structures to amplify the voices of the marginalized and redistribute power. This research argues that L-A-P renders the essential blueprint for this intentional redesign.

Sustainability outcomes remain incidental and out of reach, even in contexts where collaborative practices emerge naturally, *unless* they are supported by intentional design. The key is to institutionalize and plan these practices with fair decision-making, involvement, and a redistribution of power to make ad hoc achievements systematic and scalable. This purposeful arrangement enables societies to capitalize on their strengths in relationships and utilize them in a transformative and equitable manner to ensure sustainability.

This chapter will briefly discuss RLT and then critically look at its limitations. After that, it will present the LAP framework as a solution proposal, analyzing the four principles it comprises, and finally comparing it to RLT to conclude by synthesizing a new model of equitable and sustainable leadership. Furthermore, this relational deficit becomes critically exposed in the context of digital transformation, where top-down, compliance-driven approaches to adopting new technologies often fail to unlock their full potential for sustainable innovation. This study will later argue that digital transformation, when guided by leaderful practices, serves as a strategic lever for systematically operationalizing and scaling sustainability outcomes.

Relational Leadership Theory (RLT) [as DIAGNOSTIC Lens]

↓

Leaderful Practices (4 C's: Collective, Concurrent, Collaborative, Compassionate

[as PRESCRIPTIVE Blueprint]

↓

Designed Relational Architectures & Processes

↓

Equitable & Measurable Sustainability Outcomes

The Generic Relational Core of Leadership

The basis of this dissertation constitutes a premise upon which any theoretical model has to be based, and leadership is essentially a generic relational phenomenon. It is neither an ontological

ideal nor an ontological ability to think and feel together, to be influenced, and to coordinate, which arises out of the interaction between people themselves. This can be observed in the most informal settings, such as community organizations and family units, where groups of people with no specific authority over them are present. This phenomenon is not an invention of the formal theories discussed in this chapter, which include Relational Leadership Theory (RLT) and Leadership-as-Practice (L-A-P). Instead, they are intellectual efforts to nominate, deconstruct, and ultimately architect this already existing relational Centre into the particular environment of formal organizations. It is important to understand this difference. RLT and L-A-P are structures constructed upon this universal substrate, and their usefulness depends on their ability to direct the power of this substrate.

1.2. Introduction to Relational Leadership

There has been a conscious relational turn in leadership and management studies, toward a focus on leadership as a socially constructed process arising from systemic interactions rather than the exercise of formal authority (Uhl-Bien, 2006; Hosking, 1988). Traditionally, the management literature has confused the relational with personal dispositions, including likability (Lipman-Blumen, 1996, p. 165), or episodic dyadic encounters (Graen & Uhl-Bien, 1995). This is an entity viewpoint, informed by the Cartesian dualism, which holds distinct, autonomous knowing minds that instrumentally regulate relationships (Dachler & Hosking, 1995; Bradbury & Lichtenstein, 2000). It is based on these subjective models that Relational Leadership Theory (RLT) stands out as a radical breakthrough. Relational Leadership Theory (RLT) adopts a distinct stance within relational constructionism, according to which leadership is a co-constructed reality that emerges from a process of relating rather than pre-existing entities (Hosking, 2000; Murrell, 1997; Drath, 2001).

Dominating theories are just pure exemplifications of this entity approach. One such theory is the LMX theory, which posits that role-making mechanisms depend on existing attributes and post-facto approximations of individual leaders and members (Uhl-Bien et al., 2000). This theory represents a subject-object dynamic (Dachler & Hosking, 1995). Similarly, social identity theories provide the foundation for the processes by which actors construct group membership in their minds (Hogg, 2001; Andersen & Chen, 2002). In essence, these perspectives explore leadership as

an intervention amongst actors who have already been formed within structured organizations (Hosking & Morley, 1988).

Taken together, these entity-based methods present a fatal blind spot: they are unable to adequately reveal how leadership, as such, is constituted by interactions. This obscures constitutive dynamics, in which leadership is created through people's everyday practices —a central vacuum that RLT fills by placing intersubjective meaning-making at the center of leadership discourse (Bradbury & Lichtenstein, 2000; Uhl-Bien et al., 2007). This epistemological shift rejects the privatization of the sense, and knowledge is now recognized as the outcome of social and linguistic interaction, which is discussed in terms of socio-historical organization (Dachler & Hosking, 1995; Gergen, 2009). The focus of RLT is not on leader characteristics but on how the phenomena of leadership acquire their legitimacy by collective, relational sense-making (Uhl-Bien et al., 2007), by breaking down the distinction between leaders and followers into networks of mutually influential nodes (Fletcher, 2004), in which any organizational node can assume the role of leadership. This compares sharply with the entity-based methods, which are based on a variable-oriented examination of the fixed relations (Lord et al., 1999; Hollander, 1978). Rather than these preset models, RLT focuses on a process approach to the intersubjective emergence of leadership (Hosking, 2000; Wood, 2005).

Nevertheless, this reorientation is still partial. By emphasizing egalitarian co-creation, RLT can ignore the fact that the differences in institutional power within organizations create asymmetry in the relational processes. This acute struggle requires focusing on a political-economic process (Alvesson & Spicer, 2014; Foldy et al., 2020; Creed et al., 2022) and placing direct emphasis on equity redesign, provided that RLT can successfully execute its transformational mandate (Raelin, 2011; Uhl-Bien & Arena, 2018). In essence, the relational leadership theory views leadership as a social process that emerges and is produced through ongoing communication and the co-construction of organizational reality (Uhl-Bien, 2006; Hosking, 1988). Influence occurs through a collective of activities, rather than a formal, structured process through a chain of command, and develops through collective actions that form a shared meaning (Uhl-Bien, Marion, and McKelvey, 2007).

In this regard, power is not present in actors but is spread across networks of relations and distributed to acts rather than actors (Foucault, 1977, 1980; Dachler & Hosking, 1995). This school

of thought challenges entity models, which focus on individual leaders (Grint, 2005), and shows how people, both inside and outside organizations, continuously co-produce social order through the creation of stories and the re-conceptualization of conversations (Hosking, 1988; Abell & Simons, 2000). This strong theoretical prism is what my analysis needs to begin with, as it does not view sustainability as something leaders need to achieve at the end of the day, but rather as something the entire organization should build together.

This is also associated with symbolic viewpoints that postulate that reality is emergent within relationships that do not mark its boundaries in isolation (Bradbury & Lichtenstein, 2000).

Although it has a strong theoretical potential, RLT is challenging to implement. The theory is concerned with the mutuality of relations, though in most cases it is constrained by the natural power structure, which does not encourage absolute dialogic egalitarianism (Fairhurst & Grant, 2010). This can be due to unaccompanied structural change, which can recreate exclusion (Ospina & Foldy, 2015), and to differences in identity, which make psychological safety more demanding for marginalized parties (Edmondson & Lei, 2014). In addition, macro-level criticisms further highlight that relational possibilities are often overlooked within the broader political-economic order that conditions and defines them (Alvesson & Spicer, 2014). Taken together, these criticisms suggest that any use of RLT that is not reconsidered in terms of power, structure, and politics may ultimately contribute to the very evils it is intended to mitigate. This is the very issue that my research will address. RLT is an excellent account of how leadership occurs; however, it offers insufficient tools to make the process more equitable.

Thus, empirical studies indicate that dominant voices may be privileged in collaborative scenarios when the identity hierarchies that create those disparities are not elaborated (Foldy & Ospina, 2015). This means that, to achieve the promise of democracy as envisioned by RLT, dialogue is not enough; it requires a deliberate redesign of equity. The necessity of guided intervention aligns with Drath's (2001) premise that leadership is established through a relational discourse that involves the development of shared knowledge structures. The revolutionary potential of the theory, articulated between Murrell (1997) and Sayles (1964), can only be resolved through the straight unless the asymmetries of power are articulated between the leaders and the subjects, which in turn, supports the much-needed transition between leadership as an individual agent and leadership as a social success (Raelin, 2011; Hosking, 1988).

Regardless of its critics' claims, who view RLT as non-viable in times of crisis and somewhat relevant to transactional models that satisfy survival needs (Bass, 1985), empirical evidence shows it to be resilient to material shocks. One notable exception is the reaction of Italian cooperatives to the 2008 financial crisis. In Emilia-Romagna, the leaders leveraged their existing networks to negotiate resource-sharing contracts and distribute their products through Lega Coop. It was a relational brokerage that enabled stable cooperatives to absorb vulnerable partners, thereby avoiding transactional fragmentation and preserving 92% of jobs within the cooperative network, compared to 68% in non-cooperative sectors (ISTAT, 2010; Sacchetti & Ramsay, 2018; Berton & Fasiolo, 2020). Furthermore, relational capital directly mitigated financial constraints; SMEs in northeast Italy secured loan rates 1.7% lower than average due to banker trust built on 'soft information' exchanges (Berton & Fasiolo, 2020).

This case illustrates Uhl-Bien & Arena's (2018) concept of adaptive brokerage, in which networked trust serves as a strategic lever. Crucially**,** Sacchetti (2018, p. 117) clarifies, 'the goal was not consensus; crisis governance needed leaders who could broker reciprocity in a constrained environment. Thus, the limitation of RLT is not idealism, but its misapplication. The theory's true power is unlocked in contexts where material redesign and strategic brokerage are the primary needs. The case is central because it demonstrates that RLT's potential can be realized not only through talking but also through brokered actions that can redistribute resources, a lesson central to creating sustainable organizations.

Relational Leadership Theory (RLT) transcends the entity-relational binary by defining leadership as a socially co-constructed phenomenon that emerges from everyday conversational interaction, rather than prescribed roles (Uhl-Bien et al., 2006; Hosking, 1988). This process-oriented view, however, creates a fundamental methodological tension**.** Entity-based approaches reduce leadership to measurable, variable-based exchanges within given systems (Graen & Uhl-Bien, 1995; Hollander, 1978), whereas relational constructionism emphasizes fluid processes of dialogic meaning-making (Dachler & Hosking, 1995; Drath, 2001).

This poses a fundamental challenge: how to study the "distributed influence" of emergent, co-constructed processes (Fairhurst, 2007; Uhl-Bien et al., 2007) with methodologies designed for static analysis. Although it is challenging to study the ontological shift from leadership as a discrete act to leadership as a process of adaptive sensemaking (Edmondson, 1999; Raelin, 2011)

methodologically, it leaves an enduring gap between the theoretical expression of RLT and its empirical application.

This methodological limitation constrains research in three ways, thereby limiting the scope of investigations. The first of these is that entity perspectives tend to collapse relational patterns that should be studied at the collective level into disaggregated individual-level relations or lower-order relations, resulting in 'static snapshots' of relational work (Uhl-Bien & Maslyn, 2003). Second, deeply relational perspectives can provide rich contextual constructions that permit an understanding of a 'moment' in time and place; however, they create the challenge of collecting data that will bolster comparable and generalizable conclusions (Bradbury & Lichtenstein, 2000).

This disconnection has other dangerous blind spots, concealing how these processual relations will often be punctuated, mediated, and skewed by power. These inequities are operationalized within the hierarchical nature of organizations (Alvesson & Spicer, 2014) and across differentials in efficacy afforded by identity (Creed et al., 2022). I argue that this is not a minor oversight, but the central methodological challenge: to study relational leadership is to study power. For example, practices that approach what Meyerson (2001) calls tempered radicalism can help marginalized actors mobilize networks to influence change (Foldy et al., 2008). However, this relational agency will always be circumscribed by larger conditions that condition relations (Uhl-Bien & Arena, 2018).

To realize its potential for change, Relational Leadership Theory (RLT) must be reframed through an explicit equity lens. This requires a new methodology, one that synthesizes entity and relational perspectives into a usable framework aimed at both deep processual understanding and critical analysis (Rost, 1995; Hosking, in press; Balkundi & Kilduff, 2023). However, Relational Leadership Theory re-centres agency as collective agency; it faces a paradox: it also critiques hierarchical systems while relying on "relational brokers" who are positioned within and subject to these hierarchical institutions (Uhl-Bien & Arena, 2018; Foldy et al., 2008). The paradox reveals the limitations of tempered radicalism (Meyerson, 2001); it is insufficient because it focuses on negotiating within networks while ultimately failing to alter the oppressive structures themselves.

Therefore, without an equity-sensitive re-design, even the most well-meaning RLT practices (e.g., cross-functional teams) will continue to uphold dominant institutional logics that result in tokenistic inclusion of marginalized voices (Foldy & Ospina, 2015; Creed, 2022). Although RLT

does provide an opportunity for authority to be redistributed within "a process of dialogue and systems of shared accountability" (Fletcher, 2004), the dialogic basis of RLT negates its potential if it is only performative, that is, when the dialogue itself avoids the implicit biases that are embedded into collaborative processes (Creed, 2022).

Therefore, realizing RLT's full revolutionary potential is going to take more than a broker of division of labour or innovation; RLT needs to create a new definition of influence, not just as a lateral flow of authority, but rather the collective coordination and emergent process of shared responsibility (Rost, 1991; Murrell, 1997). It requires establishing a collective social order in which equity is how people relate to one another, not an abstraction (Hosking, 1988; Dachler, 1992). Bridging this gap between its dialogic ideals and the reality of embedded power constitutes the innovative methodological and practical challenge of the unfinished work of the theory.

The conceptualization of managers as "meaning brokers" (Hahn et al., 2014) poses a key operational paradox for Relational Leadership Theory. While RLT defines leadership as emergently co-created in dialogue (Uhl-Bien, 2006), it retains the authority of management brokerage, thereby cementing the very hierarchical limitations RLT professes to move beyond. The contradiction becomes most apparent when organizations work to establish their legitimacy while seeking recognition and trust from others. For example, in sustainability contexts such as ESG reporting, strategic dialogues may ostensibly co-create reality (Fairhurst, 2007); yet managerial control over metric definition often persists, recentralizing authority through narrative framing. This dynamic reduces collaboration to performative theatre when frontline stakeholders lack the power to codify meanings (Foldy & Ospina, 2015), a failure evidenced by the formation of shadow networks that resist rather than integrate (Kellogg et al., 2006).

Thus, RLT's structuration premise that change is achieved through daily interaction (Giddens, 1984) is undermined in practice. Managerial gatekeeping is often framed as facilitation (Lawrence & Suddaby, 2006). However, it ultimately mediates and controls the very interactions meant to generate change. Real change requires a radical reconceptualization of agency, shifting from prescribed adaptation to a constitutional architecture in which all stakeholders are co-architects of ethical frameworks rather than gatekeepers, through reciprocity (Murrell, 1997). With the unravelling of RLT's structural hierarchy, psychological safety can be reframed from managed dissent compliance via equity to a collective capacity to invent and redescribe systems collectively

(Edmondson, 2018). Ultimately, RLT can only realize its potential through a methodical innovation that forsakes entity-based "snapshots" of relationships (Uhl-Bien & Maslyn, 2003) in favor of methods that can record structures as ongoing processual power asymmetries (Dachler, 1992; Hosking, 1988)

RLT's constructivist perspective defines leadership as a phenomenon emerging from what might be termed people's "continuous relational behaviours (Knights & Willmott, 1992). Nonetheless, quantifying the same phenomenon often inadvertently reinforces the power imbalance it aims to investigate. An immanent response to this paradox is to take a critically reflexive attitude. This implies that, to reconcile with this perception, we need to formulate context-based responses (Wood, 2005) that kick-start the co-creation process without imitating authority. We should not be subjective in defining what is considered legitimate leadership, so that it supports our social status as researchers.

As empirical evidence, e.g., (staff-initiated initiatives opposing officially imposed requirements) (De Grosbois, 2012) demonstrates, to the extent that we wish to quantify authentic grassroots agency as a series of methodological actions, we must address and make decisions that expressly respect participants' autonomy. When studying RLT, we are not only faced with technical matters, but also with ethical and political matters. This forces us to confront a fundamental ethical and political question. when new ways of leading are claimed, whose voices are heard —those of researchers, managers, or frontline co-architects?

This issue requires research to be leaderful. This implies that it requires co-designed methods where participants co-design and co-construct the inquiry process (Raelin, 2023). It requires a paradigm shift in which participants shift their perspective and move from units of data to collaborators who co-produce and co-architect the research, adopting a distributed form of responsibility for wicked, unresolved systemic imperatives (e.g., ESG-driven transformation).

Participatory methods are a crucial site for engaging in this ethico-political dilemma. They are fundamentally about the 'witness' of being with participants and challenging the injustice of the all-knowing researcher, as all-knowing, whereby every participant is a participant in the life of the research and all goals mean. Ends would be directly connected by all participants (Bradbury & Lichtenstein, 2000, p. 558). Participatory methods create an authentic notion of collaborating and have the potential to bring the research to a superior, more appropriate level of meaningfulness -

they allow "participants to engage each other cooperatively on mutually defined projects," which often involve activism and social change within the research engagement (Heron, 1996, cited in Bradbury & Lichtenstein, 2000, p. 558).

This paradigm is exemplified through several key frameworks: insider/outsider research (Bartunek & Louis, 1996), which integrates deep organizational knowledge with scholarly expertise through fully collaborative data collection and analysis; appreciative inquiry (Cooperrider & Srivastva, 1987), which operates on the premise that "we largely create the world which we later discover" and allows significant issues to emerge organically rather than through problem-focused constraints; and action science (Argyris, Putnam, & Smith, 1985), which structures consultative interactions that encourage participants to critically examine their own behavioural assumptions to produce "usable knowledge" for transformation. By making everyone a co-architect of the process, these methods bring RLT's core idea to life. They prove that leadership is not a solo performance directed by one person, but a shared reality built together through relationship and dialogue.

This gets very close to the crux of the problem. While many studies value relationships, they do not maintain that relational positioning and presenting leadership as behaviours, networks, or types of language. They return to traditional models of leadership that do not address their emergent quality, which are referred to as "relational epistemologies" by Dachler and Hosking (1995). We argue that a more radical conception of relational leadership, with which we are entirely comfortable and aligned, perceives social experiences as intersubjective (Cunliffe, 2010). Leadership, therefore, is in the end "being-in-relation-to-others.

The above observations expose a profound paradox in Relational Leadership Theory (RLT). While RLT rightly affirms how power relationships hinder collaboration and create inequities, it also becomes entangled in the very systems of power it seeks to critique. It is like a change model or intervention when the perspective is "My dad and brother are asking me to help them fix the car," but their frame of reference is the broken car. Leaderful Practice (Raelin, 2011) addresses the situation through the need for dialogue and the redistribution of authority in the moment and at the site, replacing management with 'Four Cs': collective, collaborative, compassionate, and co-creative leadership. Where RLT reveals the causal paths to meaning when inclusion fails, Leaderful Practice demonstrates how to dismantle hierarchy by empowering every stakeholder to

be a decision-maker. This is the future of sustainability, not remediation through brokers; it is a starting point for leaderful revolutions.

Relational Leadership Theory represents the necessary philosophical underpinnings for understanding leadership as a socially constructed phenomenon. In this sense, it is an essential corrective to leader-centric thinking, shifting the focus from leaders' abilities and competencies to the people's interpersonal relations and communicative actions that co-create reality. While it has rightly pointed out that sustainable coordination arises not from leaders making declarations but from conversation, generating shared meaning, and fostering trust and connectedness in networks, RLT has a significant limitation that sustainability literature using a relational lens often also shares. The sustainability literature seeks RLT's diagnostic potential and uses it to interrogate leadership, while overlooking RLT's operational blind spot. The operational flaw is a failure to recognize how power asymmetries embedded in organizational structures can undermine relational processes.

As a result, the sustainability literature can be overly optimistic, portraying trust and conversation as precursors to sustainability outcomes while overlooking the fact that, without a design for equitable inclusion, marginalized voices may be overlooked as reliability and understanding are established, thereby reproducing the status quo. Thus, while documenting relationships has utility in advancing understanding of how to embed sustainability, the literature has not provided a sound bridge to the ever-broader impacts. It diagnoses the malady but prescribes, much like a doctor to a patient with an immune system. This proposal will likely be rejected; established hierarchies seldom accept anything that deviates significantly from the canon that created them. The critique is necessary, as it involves a critical reading of how these works provide pathways for sustainability and where they are indeed deficient, thereby following compromised models. Our next step is to critique this literature; not reductively, i.e., to rag on the authority of its basis, and not reductively, by merely unwrapping and revealing its naiveté, and going from there; or, using it only as a basis to criticize it. Instead, we want to build on this recognition of its naiveté. Our job is to upend these patterns of injustice and contend with a more radical imaginative model of change. It is the very same, more radical, and imaginative model that the Leadership-as-Practice framework provides, taking us beyond the diagnostic process of relational failures and building relational equity as an architectural project.

1.3. Extant Literature on Relational to Sustainability

Sustainability challenges are rarely just technical problems. More often, they persist because organizations struggle to build the human connections, the trust, dialogue, and collaboration that real progress demands. This is why relational leadership has become an important component in addressing sustainability's greatest challenge: bringing together separate fields, contrasting sectors, and competing values to address challenges that cannot be solved from the top down. Relational leadership reconceptualizes leadership as a social process in which coordination and change emerge through collective co-construction, rather than individual authority (Uhl-Bien, 2006; Uhl-Bien & Ospina, 2012b). It represents an ongoing process of meaning-making within nested biospheric and social systems, enabling the integration of principles, strategies, and actions (Kurucz et al., 2017).

This meaning-making involves value-laden decisions about who benefits and loses when integrating environmental, social, and economic concerns. It requires shifting from a consumer identity toward recognizing ourselves as socially engaged relational beings (Poff, 2010). A relational approach to sustainability embraces an ethics of care that acknowledges the constitutive, dialogical, and morally interdependent nature of human relationships (Cunliffe, 2009; Cunliffe & Eriksen, 2011). Rather than emphasizing individual virtue, it prioritizes the ethics of reciprocity, "living well with others," a fundamental aspect of collective flourishing (Eisler, 2007).

This ethos of care operates practically in stakeholder relations and sustainable organizations (Wicks et al., 1994). Interface, Inc. exemplifies this through its "Mission Zero" commitment, which demonstrated environmental care through closed-loop manufacturing while fostering employee well-being (Interface, 2017). As founder Ray Anderson noted, this genuine caring for human and natural capital enables the integration of social equity, environmental stewardship, and economic progress (Anderson, 1998). Addressing the ethical complexities of sustainability thus requires embracing care as a fundamental aspect of relational practice. This establishes the foundational argument of this chapter, that sustainability is an inherently relational achievement, not a technical one.

Relational leadership provides a critical framework for sustainability challenges by moving beyond individual-centric models to conceptualize leadership as a dynamic, collective process embedded within organizational and societal systems (Kurucz et al., 2017; Nicholson & Kurucz, 2017). Characterized by collaborative, collective, and concurrent action, it distributes leadership

among members, making it uniquely suited to the complexities of sustainability, which require coordinated efforts across stakeholders and disciplines (Nasmyth, 2011).

Co-construction and shared sense-making enable relationships to grow across many boundaries. It is a central social dilemma of sustainability (Kurucz et al, 2017). Relational leadership fosters dialogue, reflection, and trust, ultimately leading to collective action when necessary. The relational leadership perspective enables the formation of shared goals and values while addressing the tensions and trade-offs that emerge. It is also a systems perspective, or systems thinking, that provides organizations with the avenue for change and innovation around sustainability (Nicholson & Kurucz, 2017). Therefore, we argue that the relational dynamics of the actors involved are crucial to the success of any sustainability initiative. My research builds upon this premise but contends that understanding these dynamics is not enough; they must be actively and equitably orchestrated.

In this regard, we must re-emphasize that we must engage meaningful multi-stakeholder narratives of sustainability that can also navigate the complexity behind the problems encountered and multiplicity of stakeholders, developing with them multi-stakeholder pathways with a shared agency of the actors engaging in the process so that we create an ordered complexity, rather than prescribed or decreed sustainability behaviors (Kuenkel, 2019). In other words, shared agency of actors during these journeys must include reflexive time and collective goal action as solutions emerge from on-the-ground experiences.

Models such as the Compass Model provide important opportunities to engage in sustainability and to strengthen coherence for multi-stakeholder actions, as well as for sustainable engagement that recognizes tangible sustainable behavior change. That, as we engage in multiple voices that articulate complexity in sustainability, we are basing our common 'sense making' on situated, incredibly nuanced complexity. Probably the most important thing to identify is a shift from hierarchical individualism to a system-wide imposed fate (Nasmyth, 2011).

This 'distributed' approach provides creativity and potential at all levels. It fosters relational empowerment, where participants receive mutual benefits while accelerating progress toward sustainability objectives (Jose Mathews, 2006). These dynamics are particularly crucial for integrating ESG considerations into organizational practices. The success of these relational dynamics depends on organizational culture and individual behavior (Metcalf & Benn, 2012).

Sustainability requires a cultural shift toward leadership styles that align with people, planet, and profit goals, as well as an understanding of how organizations interact with their external environments through both system-level and individual assessments.

Sustainability's complexity makes multi-stakeholder collaboration essential, requiring the intentional cultivation of relational patterns such as shared vision, mutual trust, and adaptive learning to build collective leadership capacities. Their deliberate development significantly improves partnership quality and increases the likelihood of meaningful sustainability transformations.

Despite this significant promise, applying relational leadership to sustainability faces several formidable challenges**.** The field suffers from conceptual ambiguity and fragmentation, with a lack of consensus on terminology making it difficult to theorize, implement, or measure impact across sectors.

Methodological challenges persist, as the literature relies heavily on qualitative, opinion-based studies, limiting the ability to draw robust, generalizable conclusions about effectiveness. The collective nature of relational leadership creates accountability dilemmas, as distributed leadership makes it difficult to attribute outcomes to individual agency (Nasmyth, 2011; Raelin, 2016), complicating the evaluation of its specific contribution to sustainability goals. Digital transformation introduces complexity, necessitating leaders who can navigate the associated strategic and cultural shifts (Magesa & Jonathan, 2020). Similarly, emotions, which spread through contagion, critically shape collective motivation for long-term efforts, yet understanding these emotions in relational contexts remains underdeveloped (Uhl-Bien, 2006e).

The most persistent challenge is cultural: the deep-seated association of leadership with individual heroics continues to privilege individuals over collective processes, thereby undermining the participatory ethos of relational leadership (Uhl-Bien, 2006). These conceptual, methodological, and cultural barriers collectively explain why the transformative potential of relational leadership remains largely theoretical.

Embedding relational leadership practice faces profound difficulties. Moving leadership from an individual to a community-based practice proves challenging, as power dynamics and reward systems often reinforce traditional hierarchies (Raelin, 2011). Even relational theories sometimes revert to entity perspectives by focusing on individuals rather than relationships as the locus of

leadership (Uhl-Bien et al, 2007). Conceptual ambiguity creates methodological challenges, as measuring impact on sustainability outcomes remains difficult without standardized tools or longitudinal studies.

This gap is particularly notable in digital transformation processes, where the dynamics between technology, leadership, and sustainability are poorly understood and interactions are poorly articulated. The most significant barrier is arguably cultural and discursive: sociocultural discourse that valorizes individualistic heroic leadership contradicts relational ways of leading (Crevani et al., 2010) and can generate resistance against distributed/collective models. The way forward calls for a cultural shift towards more inclusive practices that acknowledge and overcome conceptual, methodological, and cultural barriers.

Finally, although the concept of relational leadership is presented in the literature as a valuable component of sustainability, it is mostly framed in a diagnostic approach, creating a significant gap in its application. Theoretical emphasis on collaborative processes often fails to adequately describe the process of implementing equity or hindering appropriation by power structures (Alvesson & Spicer, 2014; Foldy et al., 2020). This dissertation argues that the way forward to fill this gap is to shift towards a prescriptive model rather than a diagnostic one. In the next section, Leadership-as-Practice (L-A-P) is introduced as a framework that provides a systematic means and architectural design to transcend these limitations.

1.4. Introduction to Leadership-as-Practice (L-A-P)

The relational leadership perspective makes a strong case for collaboration, collectiveness, and concurrent action as processes for integrating sustainability, but remains diagnostic rather than prescriptive. The focus on egalitarian co-creation as a dimension of leadership theory and capability often overlooks an important implementation gap: how can we confirm that these processes are truly equal, and not tainted by structural power asymmetry (Alvesson & Spicer, 2014; Foldy et al., 2020)? It is precisely this gap that Raelin's (2011, 2016) Leadership-as-Practice (LAP) framework, operationalized through the Four Cs (Collective, Concurrent, Collaborative, Compassionate), seeks to fill. This makes L-A-P not just another theory, but the essential practical response to the limitations of RLT identified in the previous section.

Raelin's (2011, 2016) Work on the Leadership-as-Practice (L-A-P) framework redefines leadership as an emergent form of collective action. This co-created interdependent process arises

through shared routines and collaborative problem-solving. This view shifts authority from hierarchical sources to distributed agency, and leadership is viewed as emerging rather than being conferred by formal position (Crevani et al., 2010). The key priority is to avoid the fact that it is too easy to focus on individual traits that have come from a historical view; L-P does not eliminate individualism as much as provide a push back in the leadership's focus on behaviours in situated social contexts that value moral and relational factors over technical rationality (Carroll et al., 2008).

In theory, L-A-P relies on key ideas within sociocultural traditions (Vygotsky, 1962; Leont'ev, 1978). In these traditions, practice is embedded in an activity that happens where consciousness and materiality are intertwined. At this point, a crucial distinction emerges, with practice as the crucial continuity, where leadership is characterized as a social site, given that "events, people, and meaning compose one another" (Schatzki, 2005) through reciprocity, thereby rejecting Cartesian divides between mind and action. This paradigm represents a truly radical shift in leadership studies, as it undermines the traditional leader-follower dichotomy. The traditional 'pact' of trading agency for security, as Grint (2010) argues, cannot exist when practice is the unit of analysis.

As a unit of analysis, even the confined and momentary tasks of leadership, such as starting a mission or reacting to change, require us to think about the how of the task in a collective way (Parsons et al, 1953). The radicalization of L-A-P comes from this re-imagination, as it obliterates the constraints of the earlier norms of leadership fundamentally shifting leadership from a positioned responsibility to a collective ethics/orientation/practice, which is particularly suited for addressing the "wicked problems" of sustainability, which are characterized by a required co-created and inclusive approach (Shrivastava, 2010; Muff et al, 2013). It is precisely this radical repositioning of the individual hero to the collective practice that enables organizations to approach sustainability issues with the collective intelligence and shared responsibility that they need. Raelin's 'Four Cs' framework becomes the principal architecture within L-A-P for structural transformation.

Operationally, the L-A-P framework comprises three interrelated facets that transform leadership into a practice that is both distributed and adaptive. First, leadership is expressed as a social construction arising from dialogue and as ownership is shared within the community, rather than

through hierarchical authority (Raelin, 2019). Second, leadership is less abstract when leadership development connects lived experience, moving through cognition and emotional intelligence to action in real contexts (Raelin, 2019). Third, leadership enables leaderful collectivity as members share authority devolved through compassion, mutual respect, and interdependence (Raelin, 2003). Each of the three sides of L-A-P works to ensure leadership is a process in which members collectively engage with complexity and take shared responsibility for the outcomes.

Raelin (2003) grounds Leaderful Practice in a transformative paradigm, in which leadership becomes a shared/key social construction through relational cooperation, rather than the traditional, highly regarded leader-heroics. This process shares authority rather than imposing it, while also dissolving the authority of traditional leadership practices altogether. This perspective repositions leadership as a co-constructed process through dialogue and distributed sense-making, where authority is dispersed among participants rather than centralized in individuals with formal roles. However, new inherent tensions can arise from democratization, as distributed authority can complicate collective action when competing interests emerge simultaneously; this is particularly evident in the traditional leader-follower distinction becoming less clear (Grint, 2010).

The Italian SME, Fabianelli, a historic family-owned pasta manufacturer located in Tuscany, embodies both the stresses and promise of this approach. Fabianelli employed leaderful practices to transform relationships with suppliers, customers, and the community from transactional to co-creative ones (Runfola, Monteverde, & Picciotti, 2024). Leadership emerged not through top-down directives, but through collaborative problem-solving in daily operations, such as close coordination with local wheat growers (despite not owning farmland) to ensure quality and sustainability for its “Pasta Toscana” line. This distributed agency, rooted in social constructionist principles where leadership arises organically through interaction (Uhl-Bien, 2006), fostered trust, adaptability, and mutual accountability. The result was the implementation of joint innovation hubs that achieved a 30% reduction in production waste, demonstrating how L-A-P can navigate its inherent tensions to deliver tangible sustainability outcomes for SMEs. This case provides vital evidence to support my thesis statement: that leaderful practices, through the redesign of relationships and redistribution of power, measurably deliver direct sustainability benefits.

Further illustrating this dynamic, an Italian SME in the sustainable food sector exemplifies how distributed agency fosters both engagement and sustainable innovation (Farao, Bernuzzi, &

Ronchetti, 2023). The firm distributes leadership across employees, who collectively make decisions on resource allocation, process improvements, and green innovations. This approach enhances adaptability and cultivates shared responsibility, proving central to implementing effective sustainability practices.

However, as seen in this case, the democratization of leadership introduces persistent tensions. Diffused accountability can obscure clear lines of responsibility, complicating rapid decision-making (Spillane, 2006). I argue that these are not flaws of L-A-P but rather design challenges it surfaces. Organizations must strike a balance between empowering employees and, when necessary, establishing systems for independent action to maintain employee engagement and organizational effectiveness. Gronn (2002) warns that protracted deliberation can hinder decision-making in contexts that demand decisiveness. Nonetheless, the example of the Italian SME offers insight into how agency can be distributed to effectively utilize the space between cooperation and compliance, producing innovation and sustainable outcomes while reaffirming the fundamental tenet of L-A-P —that leadership and agency are relational and co-created (Raelin, 2003).

Fabianelli managed this paradox of innovation by employing structured concurrency and empowering coalitions of suppliers, customers, and communities within innovation hubs, delegating decision-making rights for 48 hours (Runfola et al., 2024). This consequently allows for the collaborative ethos and thereby supports operational discipline while also implying the need to design for distributed leadership to seize Gronn's 'ambiguity risk' as an opportunity for responsive collaboration and co-creation. This imperative for design is evident in that collaboration is a strategic priority. Collaboration is critical not only for efficiency but also, increasingly, for survival, adaptability, and the long-term sustainability of performance (Trott & Hartmann, 2009; Chesbrough, 2003). SMEs are increasingly recognizing the need to leverage digital technologies to transform their leadership from a dyadic partnership model to multi-actor ecologies. In her research on the Italian furniture SME Formabilio, Caridà et al. (2016) suggest that the emergence of web-based platforms has enabled the transformation of design from a linear mode to a collaborative ecosystem, where designers, suppliers, artisans, and consumers can co-design and co-concept products together.

This model provides a clear example of Leadership-as-Practice (Raelin, 2003), as leadership is created through ongoing interaction rather than formal authority. Formabilio’s leadership

ecosystem is characterized by distributed agency and co-created decision-making, introducing externalities into the process. While traditional models use a fixed point in time or a specific action (which occurs at the intersection of a network of actors), Formabilio's plan and operations decisions are customized to adapt to the engagement of multiple actors. They are aligned with its future purpose. In their leadership toward innovation and imaginative discovery, their practices and decisions draw on different types of knowledge, ultimately enabling them to cultivate organizational resilience and connect business, community, and sustainability ideas and legitimacy (West & Lyubovnikova, 2013; Dittrich & Seidl, 2018).

Instead of being based on the decision-making of a single, formal authority, the Leadership-as-Practice (LAP) paradigm reframes leadership development as a product of collaboration and collective accountability (Crevani et al., 2010). Outcomes and organizational directions, such as alignment and commitment, should be viewed as collectively produced through mutual influence, rather than imposed or merely delegated (Gronn, 2002; Drath et al., 2008). This approach highlights an important limitation of conventional leadership models: they rarely acknowledge the multiple, shifting sources of cooperation and conflict that naturally shape organizational life (Crevani et al., 2010). Raelin (2011) described L-A-P as a way of thinking differently about leader-centric models, in which authority is distributed, and responsibility is a participatory practice. An example of this principle is demonstrated by the Italian cooperative bank Banca Etica. Their loan committee is comprised of employees, managers, and representatives from civil society. All decisions are made through consensus, with equal consideration of social impact and financial sustainability. Banca Etica's practices demonstrate that private L-A-P governance is a reality, which contributes to its strong repayment history and high levels of client trust (Ferri & Pini, 2016; Banca Etica, 2023).

This illustration demonstrates how the ethics of care are structurally embedded in the core business processes, with L-A-P and social sustainability becoming a reality of governance, rather than a peripheral program. The Leadership-as-Practice (L-A-P) model takes a radical approach, treating leadership development as part of organizational praxis and rejecting any notion of leadership grounded in fixed competency frameworks and traditional, formal classroom delivery.

This model develops capacity through collectively addressing challenges; thus, leadership is conceptualized as situated learning (broadly, Raelin, 2016). The L-A-P model views leadership as

an emergent, contextual process that is socially constructed through the artifice of organizational relationships, rather than the position of leaders as authority figures. Traditional leadership models provide acceptable performance criteria within a predefined framework. In contrast, the L-A-P model (and, through tacit agreement, communication) effectively forces an improvised position in situations where groups of leaders dialogically posited multiple experiments. Leadership identity becomes interesting because it allows an identity to emerge through criteria determined in shared conversations and relational exchanges, rather than assigning duties or distributing roles (Shotter, 2008).

In addressing challenges through concepts like **'***witness-thinking'*, as proposed by Shotter, which emphasizes the relational sense of 'with,' it becomes clear that colleagues develop a shared understanding through joint engagement. This process relies on dialogical interaction, where knowledge is co-created in the moment rather than pre-established. For such practices to take root sustainably, organizations must undergo a cultural shift toward decentralized authority and collaborative decision-making, allowing emergent, collective problem-solving to flourish. This necessitates a change in structure and a shift in epistemology. Organizations must reframe what it means to lead as an emergent and social praxis (Raelin, 2010). Depending on change agents who epitomize leaderful principles and enable mutual self-management, and on the role of the empowered (Friedrich et al., 2009). Banca Etica, the authority responsible for loan approvals, was deliberately removed from individual managers and vested in cross-role committees. After participating in these committees, managers became advocates for this transformational change to leadership (Ferri & Osti, 2020).

When power is redistributed in an organization and experienced rather than described, it becomes possible for that organization to engage in meaningful ways. When cultivating culture change using "development in situ" we need to keep in mind a multitude of considerations, because culture change is as much about the daily encounter of our tellers co-creating risk frameworks, as it is about taking actions that convert concepts into meaningful shared responsibility which means that we have created a self-fulfilling cycle: decentralized decisions encourage innovation, which legitimizes decentralized operations, deepening the (re)embedding of leadership-as-practice (L-A-P) into the organizational DNA.

L-A-P enhances our ability as leaders to deliver sustainability in organizations by deepening and transforming our adaptive processes into practical capabilities. It does so because of the distributed processes that L-A-P uses. L-A-P explicitly draws on relational agency (Gronn, 2002) and relational co-creation (Uhl-Bien & Ospina, 2012) to promote dynamism and a response-based learning mode of structural consciousness for our organizations.

The 'their with' and the 'collective' sense-making create the conditions for dynamic responses through adaptive processes, in which teams reconfigure their operations in real time while mitigating the lag that follows hierarchical reorientation. Most importantly, L-A-P incorporates sustainability at the operational level by combining inclusive decision-making with ethical accountability (Raelin, 2019; Spender, 2008).

As frontline employees co-author waste-reduction plans or community members influence supply chain ethics, both as exemplified by the stakeholder committees established by Banca Etica, sustainability becomes a lived value rather than simply a matter of compliance, and where socio-environmental change occurs locally and internal and external demands are reconciled through what Crevani et al. (2010) have called 'responsiveness-as-practice'.This analysis positions L-A-P as the missing link between relational ideals and sustainable outcomes.

These principles of democracy are implemented systematically as a set of four defining attributes: the leadership must be Collective, emerging from the group; Concurrent, with many members engaged in leadership concurrently; Collaborative, dialoguing and negotiating with each other consistently; and Compassionate, which recognizes that everyone is valuable (Raelin, 2011). This integrated system, known as the Four Cs, establishes a framework for democracy that redefines how we approach power, accountability, and collective action. The goal is to rebuild power in a way that restores equality and fosters shared commitments. This structural redistribution has important implications for L-A-P, especially when addressing the brokerage paradox in Relational Leadership Theory (Uhl-Bien, 2006), which we will explore in detail. Empirically, these principles form the behavioral foundation of the core constructs of this study. The Four Cs represent the lived experience of Relational Leadership (RLEP), while their application through technology defines Leadership-driven Digital Transformation (LDEP). Together, as the subsequent analysis will show, they create the necessary conditions for robust Sustainability Reporting (SR).

This framework is operationalized through four defining principles — Collective, Concurrent, Collaborative, and Compassionate action — which we will now examine in detail.

Collectiveness in Leadership as Practice

In the L-A-P framework, the principle of Collectiveness represents a significant ontological shift: leadership is reimagined as a mutual, group-crafted outcome rather than an individual competency. Collectiveness as a concept in the L-A-P framework presents a significant ontological shift: leadership is reimagined as a mutual group-crafted outcome, not an individual competency; as argued in previous sections of this article, effective direction, strategic decision making, and accountability in complex and dynamic contexts are shared responsibilities that are the result of all group members' collective interaction rather than a single leader (Raelin, 2011, 2019). Through this new lens, leadership becomes a practice rather than a trait —a continually co-constructed, ever-changing, mutually constructed outcome that builds on past interactions, time, and networking activities (Raelin, 2016; Cunliffe & Eriksen, 2011). It is the level of organizational sustainability; unless an organization has a shared ability to feel and act, it will be incapable of adapting to the complexity and interrelated challenges of the 21st century.

This diffusion of agency can provide resilience and adaptability, depending on the organization. Research has uncovered aspects of collective leadership, primarily in SMEs, to support groups in responding to the complexity required to make changes to sustainability and ESG strategies, through tapping into different layers of expertise and group ownership of the result (Aten, van Knippenberg, & de Jong, 2021; Ali, Khan, & Ahmed, 2022).

Estra, an Italian multiutility organization, provides a concrete example of this idea in practice. At Estra, collectiveness manifests through cross-functional teams that collaborate to develop, implement, and monitor sustainability reporting and ESG priorities. Gorini and Micheli (2019) documented Estra's separate decision-making model, which is based on collaboration and planning, engages stakeholders' perspectives, and shares accountability between departments through collective practice. The Estra experience provides a direct indication that collectiveness utilizes L-A-P theory in practice, being another example of how leadership can be a democratic and distributed practice. It demonstrates that incorporating sustainability into core operations is not merely a technical reporting task. However, a cultural one, and this is precisely the sense-making that is so communally focused and involves shared responsibility.

The Estra experience also provides how collectiveness is the basis for more leaderful practice. The example outlined here demonstrates an understanding of leadership as relational and dynamic, emphasizing the actions and experiences that reveal the interfaces of interactions among team members (Raelin, 2011). Similarly, this concept is akin to Uhl-Bien's (2006) relational leadership model, which, as Uhl-Bien points out, situates leadership within the relationships among members who co-produce adaptively and collectively through their actions (Uhl-Bien, 2006). The model of leadership also reflected a break from traditional hierarchy through the elimination of top-down authority and its replacement with an architect-and-builder approach, where making sense and meaning together as a collective takes priority over decision-making (Raelin, 2003).

This model is currently observable in other sectors. Buurtzorg is an example in the healthcare industry demonstrating a collective model of leadership. The organization's self-managing nursing teams are responsible for their patients' care, which means leadership is distributed based on circumstances, giving staff increased autonomy, stronger teams, and improved patient health outcomes (Denis et al., 2012). Similarly, the education sector has a third form of embodied collective leadership, leveraging the considerable knowledge of teachers, administrators, and staff. These collective models are vital to success in disruption, either from model shifts or unforeseen events such as the COVID-19 pandemic, which forced schools to shift from in-person learning to remote learning while maintaining educational effectiveness (Bolden et al., 2008; Sweeney et al., 2024).

Despite these successes, the implementation of collectiveness faces significant resistance in organizations anchored in deeply hierarchical systems. The transition is not merely procedural but cultural, and efforts to implement collective leadership often fail to disrupt entrenched power dynamics. As Cleaver (2007) suggests, without intentional efforts to dismantle hierarchical structures, collective leadership models risk merely perpetuating existing power divisions, rather than redistributing agency. In cultures where authority is tightly bound to formal positions, collective practices are often viewed skeptically, reducing shared leadership to token participation that masks concentrated decision-making power. This critical insight reveals why simply advocating for "more collaboration" fails: the existing power structures must be deliberately redesigned.

To ensure collectiveness becomes more than a token gesture, it must be underpinned by ethical reflexivity (Raelin, 2023). This requires a continual critical examination of power, privilege, and process within teams. Leaders and members must actively confront inequalities, foster inclusivity, and as previously emphasized, cultivate psychological safety to enable authentic dialogue and shared ownership of outcomes. Without this foundational commitment, efforts to implement collective leadership will remain superficial. The inherent difficulty is not simply adopting new practices but instead transforming structures and cultures to make shared authority and accountability a tangible reality for all members.

Implementing leaderful practices requires more than an organizational restructuring; it also necessitates continuous ethical vigilance. For organizations to authentically engage in democratically oriented leaderful practices as part of their ethical commitment and collective action. In that case, they will also need an ethic that critically examines the cultural changes and adaptations that enable democratic practices and equitable, inclusive structures. This level of ongoing vigilance is the only way organizations can effectively confront the core ethical dilemma Sweeney et al. (2024) identify when attempting to "hear all voices" in the presence of oppressive power structures.

Without this type of action, individuals are merely performing mediated role-sharing within a democratic structure. Their only performance is delegating imagined power to the people mediating the position. At the same time, the organizations effectively enact the same power they are attempting to disrupt with their collective action. As an ongoing ethical commitment for democratically oriented leaderful practices, it can be practiced as psychological safety. Psychological safety, as Edmondson (1999) demonstrates, is a condition in which individuals invite conversations about ideas, concerns, mistakes, and so on, knowing that they are not tied to psychological punishment or ostracism. Psychological safety remains a crucial enabler for collaborative and innovative teams. Indeed, psychological safety is how we can widely proceduralize the theorized and fundamental principle of hearing all voices. Maintaining a safe environment is an important practice that provides us with assurance that we are not subverting our ethical commitments or acting in silence and complicity with power.

The principle of Collectiveness in Leaderful Practice (L-A-P) is more than a leadership practice; it is a revolutionary re-conceptualization of authority, shifting it from the individual to a

collectively constructed phenomenon. With this, leadership is a collaborative undertaking, and collectiveness is a precursor to building an organization that can respond effectively to changing environments, enact ethical innovations, and make resilient judgments. We have focused on operational improvements, but collectively creating resilience and an ethical social curriculum is where we can cultivate the essential elements of sustainability.

Nonetheless, the viability of collectiveness rests on the organization confronting and dismantling power dynamics, challenging cultural barriers, and cultivating a culture of psychological safety. When organizations enact (and subsequently address) this change, a growing body of literature demonstrates that collectiveness is not an unattainable concept but a strategic capability (Raelin, 2011; Sweeney et al., 2024), supported within organizations that confront complexity in uncertain environments. It is this strategic capability for collective action that transforms sustainability from a stated goal into a resilient, organizational reality.

Concurrency in Leadership as Practice.

Collectiveness, as a concept of Leaderful Practice (LAP), challenges the traditional view of leadership as a hierarchical entity. Instead of viewing leadership as an individual characteristic or role, the idea of Collectiveness defines leadership as a collective social phenomenon constructed through interaction and processes among group members. In a collective model of leadership, authority is not centered on a single figurehead; it is distributed across the team's ongoing relationships and exchanges (Raelin, 2011, 2019). This distribution creates opportunities for collective identity and shared responsibility. As leadership dissipates from formal positions through the balancing of accountability, it fosters a unified direction and a heightened responsiveness to organizational interactions (Raelin, 2016; Cunliffe & Eriksen, 2011). If Collectiveness is the foundational state of shared leadership, then Concurrency is its active process. It is the process that enables the collective capacity, so crucial to addressing the wicked problems of sustainability, to be executed at the required pace and with the required coordination. Concurrency serves as a key measure of a fundamental principle in Leaderful practice. Concurrency describes the real-time process of this collective capacity: the simultaneity of actions as multiple people engage in agency along the same timeline, without the weight of a management structure. This type of leadership, termed Concurrency, emerges from the coupling or co-relating of groups and their actions of simultaneous engagement where "its origins are not hierarchical, sequentially converging, and top-down but is a time-based terrain of unbounded

leadership ranging from degree of temporal co-orientation to full closure of an act of social responsibility with others" (Raelin, 2003; 2011; 2016). The failure of traditional, sequential leadership lies in its reliance on centralized decision-making, which creates bottlenecks, stifles innovation, and hinders organizations' ability to respond quickly during crises. In contrast, Concurrency eliminates these bottlenecks by empowering individuals at all levels to act decisively, enabling organizations to remain agile, resilient, and innovative. This shift is not just a preference, but a strategic necessity in the fast-paced, volatile environments of the digital age, where rapid decision-making and distributed action are crucial to maintaining a competitive advantage (Taleb, 2012). For sustainability, this is not merely about competition but about survival and relevance, enabling organizations to adapt to shifting regulations, stakeholder demands, and ecological crises in real-time.

There are practical examples of Concurrency in industries involved in digital transformation. For example, many Italian SMEs have moved away from the conventional model of the "patron" leadership process model, adopting distributed leadership, where research by Garbellano (2019) and Pirola, Cimini and Pinto (2020) shows how these firms allow engineering, production and marketing teams to work concurrently, using IoT data to manage changes in the supply chain alongside organizational changes in that the company relates to consumers. In such firms, leadership is not about the baton exchange of a relay race, but more like following a symphony where the disparate departments/teams all respond in parallel to the ongoing adaptation to technological change.

Furthermore, this concurrent approach to working can be extended to other sectors beyond SMEs. You may recall that in education, the teachers' design of curriculum, tools for assessment, and creation of digital resources required them to work concurrently, so that they could design effectively and agilely (Parker, 2017). This can be observed in federated groups of agile product teams, where teams of engineers, designers, and product managers engage in concurrent work with decentralized decision-making. There are also fields like healthcare, especially in urgent/emergency units, where doctors, nurses, and technicians would be able to lead important collective decisions in matters of life and death because of the concurrent (also collaborative but significantly decentralized) relationship each had with one of the "leaders" in decision-making (Sweeney et al., 2024). These varied instances demonstrate a universal truth: the multifaceted,

time-sensitive demands of our age, whether in product development, education, patient care, or sustainability, require a simultaneous, not sequential, response.

The success of Concurrency depends on creating a high-trust environment and fostering psychological safety. Without these foundational conditions, attempts at concurrent leadership can devolve into chaos, with power imbalances resurfacing and communication breaking down. As Edmondson (1999) and Raelin (2016) emphasize, trust and psychological safety are essential for enabling individuals to step into leadership roles simultaneously and effectively. Without these elements, Concurrency becomes fragmented, with individuals unable or unwilling to take responsibility, resulting in missed opportunities for collaboration and innovation.

The implementation of Concurrency also demands a profound cultural shift, particularly in organizations rooted in hierarchical traditions. For Italian SMEs, the transition from a centralized "patron" model to a distributed leadership model represents a significant challenge (Cassia, De Massis, & Kotlar, 2012). Overcoming the reluctance to relinquish control and the perceived threat to tradition is essential for fully embracing Concurrency. The strategic benefits of agility, innovation, and resilience are therefore contingent upon a prior, more fundamental victory: the dismantling of outdated power structures and the cultivation of a culture built on trust, collaboration, and shared responsibility. It is the incontrovertible cultural precondition of developing an organization that is truly responsive and adaptive to the requirements of sustainability.

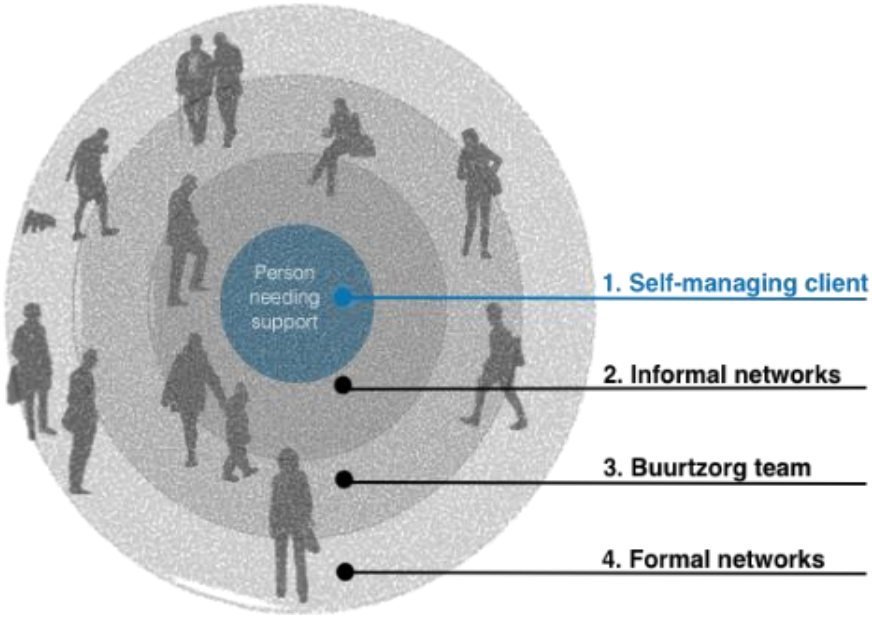
Collaboration in Leadership as Practice

In recent times, leadership in organizations has become increasingly group- and dynamic-based rather than individual. The Collaborative principle in the Leaderful Practice paradigm provides the social power needed to create leadership within the group and to bring coordinated effort and shared responsibility to bear. This type of collaboration, as defined by Raelin (2011, 2019), involves all parties in the collective development of leadership and is typified by shared decision-making and unity in addressing the problem. This is a significant departure from traditional models of hierarchy, which are founded on a single leader, to one that promotes leadership through real-time, collaborative team interaction (Raelin, 2011; Cunliffe & Eriksen, 2011).

The Buurtzorg healthcare model is an interesting example of the viability of this approach. The fact that this organization does not require a hierarchical structure does not mean it lacks self-

managed nurse teams that can work autonomously. It is a process that has been proven to make work more rewarding, improve client outcomes, and increase problem-solving efficiency, as frontline employees are intelligent (Gray & Shaw, 2019; Raelin, 2016). The L-A-P is the notion that collaborative leadership significantly contributes to improved results, which Buurtzorg has demonstrated dramatically. Is. The case is a critical roadmap to sustainability: this context-sensitive, frontline-led co-creation is what an organization can generate in response to sustainability challenges. This context-sensitive, frontline-led co-creation is precisely what is needed to develop the adaptive, localized solutions that sustainability problems demand, moving beyond one-size-fits-all mandates.

Figure 1.1: The Buurtzorg Organizational Model



Source: Adapted from Hegedüs, A., Schürch, A., & Bischofberger, I. (2022). Implementing Buurtzorg-derived models in the home care setting: a Scoping Review. *International Journal of Nursing Studies Advances*, 4, 100061.

A collaborative success system is based on every member sharing his/her knowledge to advance learning processes and a flexible vision grounded in a particular cultural aspect: psychological safety (Edmondson, 1999) and according to the L-A-P model, distributed decision-making results in resilience and adaptability (Raelin, 2011; Uhl-Bien, 2006), which is possible only when team members have confidence in the safety of taking interpersonal risks. I argue that psychological

safety is therefore the non-negotiable precondition that unlocks this adaptive potential. Psychological safety is the driver that turns abstract, theoretical partnerships into democratic action. It fosters trust and respect, enabling individuals to share their views and integrate opposing ideas at will. It also makes them repent their mistakes without fear of punishment.

The issue of psychological safety cannot be overemphasized in the Agile software development process, which requires flexible environments. In this case, leadership does not imply a position but is an ad hoc process that evolves to the person most relevant in terms of expertise (Raelin, 2011; Hoda, Noble, and Marshall, 2013). This kind of fluid exchange can only take place when the foundation of psychological safety allows team members to take the initiative, criticize ideas without fear, and compromise without feeling intimidated. Such an environment promotes competence, independence, and mutual trust, all of which are key to successful role rotation.

The example described by Hoda et al. (2013) shows that psychologically safe teams can operate in a more favorable decision-making environment and, therefore, respond and adapt more quickly to changing conditions. The model of collaborative agency can also be used to consider different types of educational partnerships (e.g., concentric, multidisciplinary, and interdisciplinary knowledge) and health professions. In the context of curriculum design and mentoring, faculty teams in university departments undertake tasks that were previously performed by an individual, making leadership a collective achievement (Raelin, 2011; Raelin & O'Donnell, 2018). The dissemination of leadership will improve the quality of clinical decision-making by integrating various competencies, thereby reducing the disadvantages of a single approach to supervision (Denis, Langley, and Sergi, 2012). It is an ethical model grounded in a sound ethical foundation, ensuring that institutions are accountable and deliver improved patient outcomes. However, there is also a fundamental conflict in distributed leadership: accountability.

Although it has the benefit of shared responsibility, it may lead to diffuse responsibility, resulting in uncertainty in decision-making and action (Raelin, 2011). In healthcare teams, including collaborative healthcare teams, to achieve better outcomes, there must be accurate mechanisms for assigning blame for decision-making failures, ensuring that performance does not decline (Pronovost, Berenholtz, and Needham, 2008). This thesis addresses the tension by suggesting that the L-A-P paradigm, with its emphasis on collective accountability and open procedures, provides a structural backdrop where distributed accountability can flourish rather than collapse. When

properly implemented and backed by psychological safety and open accountability, collaborative leadership is a force that drives organizational resilience and sustainability.

Decentralization promotes adaptive intelligence in organizations, enabling them to respond quickly to change (Raelin, 2011). The COVID-19 pandemic showed that the more decentralized a company is, the swifter and more responsive it becomes in its adaptive responses (Sajjad et al., 2024). Examples of companies that achieved tangible, visible outcomes through cooperation in their sustainable efforts and thereby significantly reduced various carbon emissions include IKEA (Sajjad et al., 2024). Consequently, transitioning to collaborative L-A-P is challenging in a cultural change context because it fosters an environment that encourages employees to demonstrate outcomes, facilitate intentional change with adaptive agility, and shift from hierarchical power structures to those emerging from collective leadership through daily work (Drath et al., 2008; Uhl-Bien & Ospina, 2012). After all, it is this synergistic transformation that enables the collective intelligence needed to overcome complex trade-offs and jointly develop the innovative pathways required to achieve true sustainability. This culture was recognized as strongly supporting psychological safety and separate accountability, which helps organizations and societies build resilience and sustainability.

Compassion in Leadership-as-Practice (L-A-P):

The ethics of care, initially described by Carol Gilligan (1982), has its roots in the moral development work of Lawrence Kohlberg (1981). However, it is fundamentally different because the ethics of care recognizes relationships between people as the foundation for moral responsibility. It is a re-centering of traditional moral philosophy that emphasizes objectified justice and abstract rules: "I cannot say exactly how those conclusions developed from that, other than to say that they necessarily respect, as the greatest moral value, a commitment to the maintenance of relationships, and responsibilities of care for the vulnerable persons we may become" (Nodding's, 1984, p. 259). Ethics of care is not an alternate ethical theory but an entirely new re-centering and rethinking, for it demands ethical responsibility in carefully sustaining the connectedness we have with others. It is the comprehensive philosophical foundation from which the principle of Compassion in Leaderful Practice draws its meaning and energy.

Compassion in Leaderful Practice is generated. Beyond its moral imperative, this compassionate foundation is a strategic enabler. It creates the psychological safety necessary for candid dialogue

and shared ownership, which, as this research will demonstrate, are prerequisites for the effective adoption of new technologies and the honest reporting of sustainability performance. Thus, Compassion is not a tender supplement but the fundamental moral value that imparts the other three Cs—Collective, Concurrent, and Collaborative — the moral purpose and makes them work fairly. It transposed moral obligation into another leadership domain, where it was indeed underground, thereby emphasizing respect for the individual and their inherent dignity as human beings, not just performers of organizational roles.

This shift in moral foundation demands an entirely new logic of leadership, moving away from a traditional, self-focused approach towards a relational and relevant one. The table below (Table 1) illustrates this change across critical dimensions of a leader's approach to purpose, accountability, and effectiveness, showing the re-characterization of an ethic of care. This new ethical landscape defines a logic of leadership that is responsible and relational, rather than self-focused and traditional**.** Table 1.1 contrasts traditional logic with care-informed logic, illustrating this shift across key leadership dimensions.

This method of care, as shown in the table, is not just supportive but at the core of addressing complex sustainability challenges. These complex issues, woven together like an environmental, social, and economic fabric, require precisely the same qualities that the Ethics of Care inculcates: a strong stakeholder sensitivity and an ability to collaborate and engage empathetically (Tronto, 1993). It aligns well with post-heroic leadership theories, which view leadership as a participatory process achieved through inclusive teamwork and joint decision-making (Fletcher, 2004; Cunliffe & Eriksen, 2011).

Finally, care-based leadership can ensure the increased employee commitment and moral uprightness required to create and implement sustainable strategies that honor a commitment to people and the planet through valuing employee well-being and inclusive participation (Gabriel, 2015; Maak & Pless, 2006).

Table 1.1: The relational stance informed by ethics of care

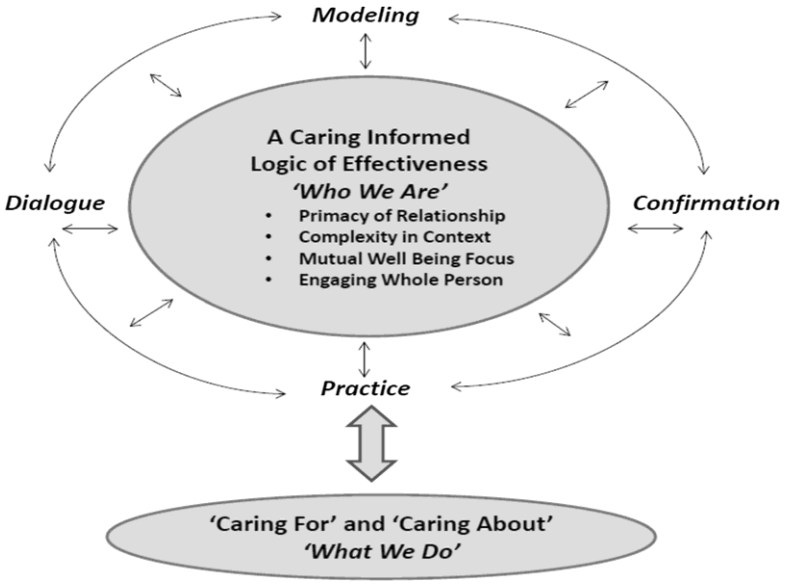
Table 1 The relational stance informed by ethics of care: rational, responsible and relational logics of effectiveness

Key dimensions related to each ethic of care tenet	Rational	Responsible	Relational
Primacy of relationships			
View of self	Individual	Individual in relationship	Self-in-relation
Purpose of leadership efforts	Strengthen competitive position	Ethically mobilize toward objectives	Encourage collaborative capacity
Purpose of goals	Setting the course	Setting the course in collaboration	Co-creation and co-production
Output emphasized	Marketable goods, services, and profit	Organizational reputation and value creation	Social relationships, community and collective learning
Locus of accountability	Individual—focused at the top	Individual in collaborations	Collective—shared
Ideal in communication	Commanding: one-way, setting expectations	Persuading: Dialogue and rhetoric	Dialogic: two-way, mutuality of interests
Complexity in context			
Aim of leadership activities	Enforcing control	Guiding toward common purpose	Encouraging emergence
Approach to enhancing leadership	Leader development through training: learning outcomes emphasized	Leader development through practice: experiential learning through reflection emphasized	Moral development through conversation: ongoing process emphasized
View of the source of leader follower relations	Positional leadership—leadership in role and individual	Positional leadership—in role and stakeholder relationships	Emergent leadership—leadership in system
Purpose of leadership	Enforcer—task achievement	Visionary—inspiring meaning	Catalyst—co-create meaning making
Ideal basis of moral judgment	Abstract, generalized principles—simplified	Habit emphasized—e.g., Aristotle's virtues of character	Emphasis on particular circumstances and empathy—complexity embraced
Mutual well-being focus			
View of human growth	Self-promotion, individual development	Individual and contribution to others' growth	Growth-in-connection
Meaning of achievement	Profit maximization	Optimization of stakeholder interests	Integral view of well-being
Ideal collective outcomes	Efficiency	Effectiveness	Caring relation
Primary value of business	Economic	Creating value with stakeholders	Contribution to flourishing
View of organizational effectiveness	Internal to organization	Optimizing a plurality of stakeholder interests	Caring for (internal) and caring about (external) sustainability issues
Time frame emphasized	Short-term trade-offs	Long-term alignment	Long-term integration
Engaging whole person			
Kind of reasoning emphasized	Cognitive/rational reasoning	Cognitive and emotional reasoning	Caring/practical reasoning
Role of emotion	Interferes with judgment: resist	Informs emotional intelligence: consider	Enables empathetic response: embrace
View of vulnerability	Threatens self: avoid	Humility and understanding: connect	Opens to others: embrace
Role of trust within relationship	Earned: na¨ıve to trust without evidence	Built: trust is established through ongoing stakeholder interactions over time	Assumed: primary assumption of the best in others

Source: Nicholson, J., & Kurucz, E. (2019). *Relational leadership for sustainability: Building an ethical framework from the moral theory of "ethics of care." Journal of Business Ethics,* 156(1), 25–43. https://doi.org/10.1007/s10551-017-3593-4

This addresses the very issue of RLT; it is compassion that provides the ethical framework for deliberately restructuring relations and avoiding the marginalization of marginalized voices, thus enabling the achievement of sustainable results. Figure 1.2: An ethical, relational leadership process model that combines a caring-informed rationale with cyclical moral development practices. This process is illustrated in Figure 1.2 below and operationalized in the practices outlined in Table 1.2.

Figure 1.2: An ethical framework of relational leadership for sustainability: a process view



Source: Nicholson, J., & Kurucz, E. (2019). *Relational leadership for sustainability: Building an ethical framework from the moral theory of "ethics of care." Journal of Business Ethics,* 156(1), 25–43. https://doi.org/10.1007/s10551-017-3593-4

By making compassion the driving element that underpins the Ethics of Care and, in fact, the entire system of care, as demonstrated in the Leadership-as-Practice (L-A-P) framework, it becomes the non-negotiable essence of human-centered leadership. According to Raelin (2003, 2011, 2016), the ethic of leaderful practice is compassionate. It transforms the philosophical ethic into a daily practice of respecting human dignity by acknowledging the intrinsic value of all individuals, regardless of their status in the hierarchy. It goes way beyond occasional acts of kindness; it is an ongoing, structural act of taking care of the mental, moral, and emotional well-being of every member, and in doing so, establishing the psychological safety that enables genuine involvement (Edmondson, 1999).

Table 1.2: Developing the capacity for relational leadership

Table 2 Developing the capacity for relational leadership: a process of moral education supporting the caring informed relational stance

Component of moral education	Support for the caring informed relational stance	Alignment with relational leadership as a moral activity	Developing capacity for relational leadership: Reflection questions and practices
Modeling	*Primacy of relationships:* Attention on relation between carer and cared-for	Relational leaders have a moral responsibility to speak and act with integrity and self-constancy	Is our response adequate? Could we put what we have said better? Has our act helped or hindered?
Dialogue	*Complexity in context:* Involves attention to the other person not just the topic under discussion Goal of understanding self or 'other' with whom one is in dialogue—taking turns as carer and cared-for	Relational leaders need to recognize the inherently moral nature of conversations and how we respond to others in a particular context	Ask: what are you going through? before we act, as we act and after we act
Practice	*Mutual well-being focus:* Develop capacity for interpersonal attention through engaging in caregiving activities	Relational leaders approach their practice as a way of being and relating to others in which leaders and followers can grow and learn from each other	Engage in activities that develop caregiving experience Choose sites consistent with the individual's interests and capacities and where people whom they are learning from can effectively model caring Regularly dialogue about experience in practice
Confirmation	*Engaging whole person:* Attribute the best possible motive consonant with reality Draw the cared-for's attention to his/her better self	Relational leaders have a moral responsibility to treat people as human beings, respect and tend to their emotions and appreciate others for who they are	When we identify a motive and use it in confirmation, the cared-for should recognize it as his/her own: 'that is what I was trying to do'

*Source***:** Nicholson, J., & Kurucz, E. (2019). *Relational leadership for sustainability: Building an ethical framework from the moral theory of "ethics of care." Journal of Business Ethics,* 156(1), 25–43

In practice, this compassionate foundation is the critical mechanism for shaping genuinely inclusive cultures**.** It takes the initiative to address the power imbalance by giving minorities a voice and ensuring they are treated equally in decision-making. It is a vicious circle: compassion breeds a sense of security, which leads to inclusivity, which, in turn, improves performance and innovation.

The efficacy of this approach is demonstrated by organizations like TOMS Shoes**,** which operationalized compassion into a leadership model that granted employees equal participation in both fiscal and social programs. Such symbiotic oneness between employee welfare and the organization's mission yielded high relational integrity (Maak & Pless, 2006), which translated into great workplace identification, inspiration, and an inclusive organizational culture that was not only strong but also accommodating (Bachnik & Szumniak-Samolej, 2013). Compassion, hence, serves as the moral compass and the driver of creating organizations where human beings and their causes can flourish. Since it is at the core of human-based leadership, compassion

becomes the driving force for achieving social sustainability—the element of sustainability focused on well-being, equity, and fairness in organizations and societies.

Sympathy is not a side-effect, but a strength. Having understood that caring leaders create strong teams, it is the culture of trust and deep interest in investing their hearts in their team that develops, and these qualities are necessary to navigate any storm (Ramachandran et al., 2023; Chaudry et al., 2024). Raelin (2019) defines compassion as an ethical guide that offers human-centered solutions during moments of uncertainty. This idea has been successful in Patagonia, where a culture of kindness is instilled by default. Its policies and practices promote health, mental, and workplace flexibility for its employees, which, as illustrated, are not mutually exclusive; instead, they aim to build a fully engaged employee base geared towards making a positive change in the environment. Engagement creates a sense of what employees think about their input in the company, and thus, they become stakeholders rather than employees. The model can also be applied to other industries.

The Cleveland Clinic is a notable example of a potentially long-term, high-quality, and patient-centred care model driven by empathetic leadership (Gordon et al., 2020). In a positive, caring, and engaging culture like that at Ron Clark Academy, student motivation and achievement can be significantly enhanced. Remarkably, the positive effects of compassion also refer to quantifiable performance results. Recent empirical research on Italian SMEs indicates that the altruistic purpose of ensuring others' welfare yields considerable dividends in terms of collaboration within companies, leading to innovation and better performance (Montani et al., 2022).

This is supported by the innate ability to empathize, or compassion capacity, as widely recognized, and by the discovery that leaders who recognize employees' feelings in distress and reallocate workloads foster greater trust, cooperation, and involvement (Lilius et al., 2011). The concept of compassion is thus an honest and achievable leadership approach that encourages accountability and attentiveness, thereby improving organizational power, innovation, and performance. These examples are important because they can translate the concept of compassion as an ideal into a strategic benefit that can be quantified, demonstrating that the ethical 'why' of compassion is also the practical 'how' of creating resilient and sustainable organizations.

Despite its tremendous value, the cultural and structural tailwinds for institutionalizing compassion are daunting. Empathic leadership styles are frequently misunderstood in performance-focused

settings as a tactical weakness —a fatal act of ceding power that diminishes decisiveness (Westover, 2024). This view is not just a misconception but a fundamental inability to realize that compassion is a strength, not a burden. Furthermore, the emotional labour required to sustain these practices poses a significant risk of burnout for leaders and teams alike, a challenge that becomes insurmountable without institutional structures designed for emotional recovery and collective care (Zareen, 2024; Figley, 2002).

Therefore, moving compassion from a valued ideal to a lived reality requires a deliberate architectural shift in organizational design. This highlights one of the main points of this thesis: that for L-A-P to become effective, compassion should not be an individual virtue but must be automated into the organizational structures and processes. It involves applying norms, enabling structures, and formal processes that do not render compassion a heroic act performed by a single person, but rather an organizational obligation. (Dutton et al., 2014; Grant & Parker, 2009). Ultimately, to embrace compassion within L-A-P is to recognize it as the unifying ethical principle that binds the collective, concurrent, and collaborative into a single, transformative practice (Raelin, 2016). It is the strategic imperative that converts philosophical commitment into performance advantage, driving ethical conduct, social sustainability, and resilience. Organizations that successfully engineer their cultures around this principle do not merely adopt a new policy; they cultivate an ecosystem of dignified interdependence**,** where the commitment to mutual well-being becomes the very engine of enduring success.

A failure of technical implementation does not cause the sustainability issue; rather, it reflects a severe lack of capacity to relate. This dissertation argues that Relational Leadership Theory (RLT) has provided the necessary diagnostic lens to understand this lack of capacity. However, it is very easy to continue to construct RLT as descriptive, as fundamentally diagnostic, identifying leadership as merely social behaviours of communication and interaction that have been constructed or are considered social. While RLT is a construct with theoretical roots in co-inquiry, which can be described as a completely participatory and egalitarian process, collaborating and co-constructing 'leadership' processes in the empirical field means it has a strong critical theory but significant gaps in its practical application. It does not provide us with practical guidance on how to avoid relational processes from becoming distorted or transgressed, or on how to prevent embedded power asymmetries and habitual hierarchies.

The Leadership-as-Practice (LAP) framework, through the Four Cs, directly addresses this gap. If RLT successfully argues for the case of relational leadership, L-A-P provides the essential how, through a set of non-negotiable design specifications. As we have demonstrated, each of the four principles operates together to create an overarching leadership architecture. Through a collective view of leadership, the locus of authority moves from the individual to the group, capturing the essence of leadership as a collective act.

Concurrent action eliminates sequential bottlenecks, enabling this collective capacity to be deployed in real-time and thereby increasing organizational agility and resilience. Collaborative activities also facilitate the daily practices of communication, joint sense-making, and collaboration, which we rely on to weave together all our concurrent actions into coherent outcomes. Ultimately, compassionate commitment serves as the ethical foundation that grounds the entire model in an ethic of care, as we advocate for collaborative leadership that prioritizes equity and inclusion while preserving dignity for every person involved.

Collectively, these principles form a robust, self-perpetuating system that is experiential and relational, transforming the ideal of relational leadership from an abstract, theoretical concept into a practical, ethical design for organizational settings. With Compassion as its ethical foundation, the L-A-P framework provides the prescriptive, equity-centered architecture that RLT lacks, enabling the transition from diagnostic theory to transformative practice. The cases of Buurtzorg, Banca Etica, and the borderland innovation of the Italian SMEs are not just examples, but rather proof-of-concept, as they not only evidence that these leaderful models, when deployed in a systemic strategy, better build antifragility, innovation, and a more ethically resilient condition for responding to the volatility and complexity remaining ever-present in our world.

However, this journey demands more than adopting new practices; it requires a profound cultural metamorphosis**.** It necessitates the deliberate dismantling of the heroic leader paradigm and the cultivation of a culture of psychological safety, shared accountability, and distributed authority. This is a monumental challenge and an unparalleled opportunity.

This analysis, however, prompts a crucial theoretical and practical question: How exactly does this prescriptive L-A-P framework relate to the broader, diagnostic field of Relational Leadership from which it emerged? Having established the architectural integrity of the Four Cs, it is now imperative to step back and situate this leaderful model within the broader scholarly conversation.

The following section will engage in a comparative analysis of Relational Leadership and Leadership as Practice. We will explore their profound convergence on a processual ontology of leadership, while also illuminating their critical divergences in focus, specifically, where they locate leadership (in dyadic relationships vs. in collective practices) and their primary purpose (descriptive analysis vs. prescriptive design). This comparison ultimately argues that these frameworks are not rivals but essential partners: RLT provides the philosophical groundwork, while L-A-P provides the practical framework for building on it. Together, they form a complete picture for understanding and enacting leadership in the 21st century. This collaboration is the keystone of my conceptual model: RLT presents the reasons why we need to pay attention to relationships, and L-A-P offers the practical design to make those relationships fair and efficient.

Having grounded the fundamental principles of either Relational Leadership (RL) or Leadership-as-Practice (LAP), we see the significant overlap; both investigations propose that leadership is not an individual property or characteristic but instead, a joint property, or co-construction that emerges from interactions in a group (Uhl-Bien, 2006; Raelin, 2011). Each framework demonstrates a clear transition from an entity-based to a processual ontology, challenging organizational hierarchies by redefining authority through social exchanges that depend on team-based interdependence (Gronn, 2002; Cunliffe & Eriksen, 2011).

Although Relational Leadership Theory (RLT) and Leadership-as-Practice (L-A-P) originate from distinctly different intellectual traditions, they both offer radically different perspectives on leadership. The two perspectives, however, possess different, though complementary, emphases. RLT offers an overview that provides a rich diagnostic lens, clearly demonstrating how leadership emerges through quotidian discourses, mutuality, and joint constructions of violence (Uhl-Bien, 2006; Dachler & Hosking, 1995). It is particularly valuable for demonstrating how groups form through interpersonal relationships, enabling them to actualize their collective purposes. However, in the absence of this thesis, as argued, this diagnostic view is inadequate for producing change. It introduces the brilliant identification of the processes involved in relationships but is weak on how to make these processes fair and inclusive.

LAP, in its turn, provides the necessary structural and moral framework for achieving this relational orientation. LAP is more than descriptive, as it provides in-depth guidance on how organizations can be designed to accommodate dispersed leadership (Raelin, 2016). LAP requires

Leadership to be Collective in ownership, Concurrent in action, Collaborative in Process, and Compassionate in the moral foundations (Raelin, 2019). This makes the generic concepts of shared ownership meaningful and practical. This analogy highlights a notable difference in the location of leadership. The leader-follower dyadic relational models (e.g., LMX) tend to put the leader back in the center of attention, as they focus on the specific relationships the leader has with each follower. By contrast, Leadership-as-Practice decolonized leadership, making it to lie not in individuals or relationships, but in everyday practices and dynamics of the group. This predisposes L-A-P to be a better lens through which leadership in fluid, collaborative, and non-hierarchical settings can be understood. This is not just an academic distinction, but it is the basis of sustainability. The intricate issues require the combined efforts of the entire system, rather than the excellence of dyadic interactions between a leader and others. These frameworks are all part of a whole picture. LAP provides the intentional design necessary to ensure that such processes are fair, inclusive, and pragmatic, whereas RW describes the relational dynamics of leadership (Cunliffe & Eriksen, 2011; Foldy et al., 2020). They both rely on a foundation of communication, trust, and mutual respect (Hosking, 1988).

However, it is the same idealism that reveals their central practical paradox: the models need to be trusted, psychologically safe, purposeful, and systematically dismantled by the competitive, individual-incentivized DNA of the modern corporation (Visser & Tolhurst, 2017). In this case, power and apprehension of punishment may make collectivity performative and concurrency dangerous (Alvesson & Spicer, 2014). Hence, the application of either framework is not just a technical shift, but a massive cultural shift that requires challenging established power dynamics to develop the conditions that respect the diversity of thought and facilitate group problem-solving. My research concurs with this opinion and assumes that it is not a deficiency of knowledge that is the major obstacle, but rather a deficit of architectures to support such a dramatic cultural transformation, as outlined in the Four Cs.

Comparing Dyadic Relational Leadership (including LMX) with Leadership-as-Practice (L-A-P), as shown in Table 1 below, reveals the primary differences between traditional hierarchical perspectives of leadership and more collective and distributed types of leadership. This comparison reveals that power, agency, and decision-making are implemented differently across approaches, making it challenging to transition between models within organizations.

Table 1.4: Comparing Dyadic Relational Leadership (e.g., LMX) and Leadership-as-Practice (L-A-P)

Aspect	Relational Leadership (Dyadic - e.g., LMX)	Leadership-as-Practice (L-A-P)
Unit of Analysis	The **dyadic relationship** between leader and follower; leadership is an interpersonal interaction (Graen & Uhl-Bien, 1995).	The **collective process**: leadership is shaped through shared practices and interactions among all members (Raelin, 2016).
Focus	Primarily concerned with relationships and their contribution to leadership success, often emphasizing emotional and social bonds (Brower et al., 2000).	Focuses on **practice** leadership as an activity that emerges through coordinated collective actions and everyday interactions (Raelin, 2011).
Leadership Role	Leadership roles are dynamic, focusing on **role-making within the leader-follower dyad** (Graen & Uhl-Bien, 1995).	Leadership is **distributed and emergent**. It is a fluid phenomenon enacted by any member, not fixed to formal roles (Gronn, 2002).
Ontological View	Emphasizes a **relational ontology: leadership exists within interpersonal relationships**, based on shared meaning and mutual influence (Uhl-Bien, 2006).	Leadership arises as a **collective accomplishment** within the flow of practice itself, rather than from the actions of defined roles or specific persons (Carroll et al., 2008).
Core Idea	Leadership is about building, managing, and nurturing **dyadic relationships** to achieve organizational goals.	Leadership is an **emergent process co-constructed** by a group through everyday tasks and collaborative interactions (Raelin, 2003).
Decision Making	Emphasizes shared decision-making but is often framed **within and directed by** the leader-follower dyadic relationship.	Decision-making is inherently **collaborative and dialogical**, with joint accountability shared across all participants (Raelin, 2011).
Key Theorists	Graen & Uhl-Bien (1995). Brower, Schoorman, & Tan (2000); Uhl-Bien (2006).	Raelin (2003, 2011, 2016); Gronn (2002); Carroll et al. (2008).
Emphasis on Agency	Emphasizes agency **within the dyad**, often highlighting the leader's influence and actions in guiding followers.	Agency is **distributed among all members**; every participant can enact leadership in various contexts (Raelin, 2016).
Role of Power	Power, while mediated by the relationship, tends to be **asymmetrical and centralized** around the leader's formal authority and hierarchical position.	Power is **decentralized**; influence is derived from participation in practice and is not tied solely to positional authority **(Raelin, 2011)**.

Source: Adapted from Graen & Uhl-Bien (1995); Brower, Schoorman, & Tan (2000); Uhl-Bien (2006); Raelin (2003, 2011, 2016); Gronn (2002); Carroll, Levy, & Richmond (2008).

This comparison reveals a fundamental divergence: leadership is located either within the interpersonal dyad or within the collective flow of practice. This distinction is crucial for addressing complex, adaptive challenges, such as those related to sustainability. Therefore, this

comparative analysis justifies the central claim of this dissertation: that L-A-P is not just an alternative to RLT, but its necessary evolution from a descriptive theory to a prescriptive framework for achieving sustainable outcomes. The Leadership-as-Practice (L-A-P) perspective, with its emphasis on distributed agency, collaborative decision-making, and decentralized power, presents a more robust framework for fostering lasting outcomes. The practice of sustainability is a process, not an end state, that requires the participation of the entire organization, and not just a leader-follower dyad. The action-oriented concept of emergent practice and the concept of shared accountability, illustrated by L-A-P, could not dovetail more beautifully with sustainability as an integral part of the everyday interactions and routines of all the members; thus, creating it by way of an integrated and unassuming element of an organization's governance, and not something handed down by leadership through strategy. Thus, if sustainability is to be genuinely incorporated, we must think about leadership not as the influence between two or more entities in a relationship, but as the shared agency for sustainable practice as its own thing.

Suppose sustainability is to be integrated and become resilient. In that case, we must view leadership not as an influence between two or more parties in an interactive relationship, but as a collective capacity for sustainable practice, separate yet interdependent. Having established this theoretical framework, the next chapter will explore its empirical implications: how shaping this collective capacity directly relates to more sustainable practices in organizations.

1.5. Conclusion of the chapter

This chapter has contended that the quest for sustainability is a fundamentally relational challenge that requires not just diagnostic understanding but prescriptive architectural change. To meet this challenge, Relational Leadership Theory (RLT) provides a necessary philosophical frame. RLT dismantles the myth of the heroic, singular leader and analyzes leadership as a socially constructed process that emerges from communication, dialogue, and collective sense-making within webs of mutual influence. However, diagnosis is only part of what is required to do transformative work.

This dissertation, therefore, argues that the leap from diagnosis to transformation necessitates a prescriptive framework —a design for practice**.** RLT has significant limitations, including theoretical incompleteness and limited prescriptive power. By typically not understanding the omnipresent and recursive nature of social control, hierarchy, and systemic exclusion, RLT leaves

practitioners in a lamentable position if they are seeking explicit direction on how to navigate the very roadblocks RLT makes visible.

Leadership-as-Practice (L-A-P), configured in relation to the Four Cs, directly addresses the implementation gap by specifying the architectural design to instantiate relational leadership; importantly, to remember, revolutionary organizations like Buurtzorg, Banca Etica, or Italian SME networks did not simply implement L-A-P as a model, but their radical success emerged from their inherent and holistic way of a relational model. These organizations form a potent triumvirate, exemplifying a proof of concept with key shared elements that the Four Cs powerfully illuminate. Their collective practice illustrates:

A Collective endeavor, where leadership is a distributed property of the group. This is evident in Buurtzorg's self-managing nurse teams, Banca Etica's stakeholder-led governance, and the cooperative ownership models of Italian SMEs, all of which foster a shared purpose that transcends individual ambition.

Concurrent engagement, characterized by fluid and dynamic participation where influence is exercised contextually by all members, not held sequentially by a sole manager. This manifests in the real-time, peer-to-peer coordination within each organization.

A deeply Collaborative process of co-creation, where strategy and action emerge from consensus-driven dialogue and mutual meaning-making. This is the bedrock of Banca Etica's ethical investment decisions, the innovation within Italian industrial districts, and Buurtzorg's community-centric care model.

A Compassionate orientation rooted in ethical commitment, which actively fosters psychological safety and validates the dignity of every stakeholder. This is evident in Buurtzorg's focus on patient and nurse wellbeing, Banca Etica's financing for social solidarity, and the familial support structures of Italian SME networks.

While RLT captures the mechanics of how relationality can emerge, L-A-P can serve as the lexicon and structural template for creating equitable and inclusive structures, as these exemplars naturally illustrate. They are a living testament to this leaderful paradigm as a strategy, not a myth, demonstrating the intrinsic capacity to realize the innovation, agility, and ethical robustness required to navigate real-time complexities. These are not just isolated instances; they confirm the central hypothesis of this thesis: that sustainability is a product of specially engineered relational architectures, rather than an unintended consequence of collaboration.

Ultimately, RLT and L-A-P are not opposing frameworks; instead, they serve as essential collaborators in a single project in which RLT does the necessary deconstruction of the old leadership frameworks, and L-A-P offers the building manual (the principles of which have been inherently modeled by innovative organizations) for an alternative that is democratic, equitable, and sustainable. The model is powerful because it taps into the existing latent human potentials for cooperation and nurturing that are present even in dysfunctional systems; as such, what is necessary to switch to a leaderful practice is an organic rather than an alien effect. So, the way forward is cultural; it is a deliberate change.

This two-directional shift deconstructs existing hierarchies and creates new cultures of psychological safety, shared accountability, and distributed authority. The L-A-P prescriptive architecture developed in this chapter provides the theoretical framework for future empirical work. This model will be discussed in the following chapters in two characteristic environments of the 21st-century organization. The second chapter will demonstrate that sustainability results are not achieved solely by intent, but rather through the actual leadership practices outlined herein, which is why L-A-P is a precondition for true sustainability. This will be followed by Chapter 3, which presents the argument that digital transformation is a crucial test case: it is a stressor that demands decisions between implementing new technologies to reinforce old hierarchies or embracing the distributed, agile, and collaborative practices that the L-A-P framework suggests. The various explorations will all demonstrate that the leaderful redesign presented in this chapter is not an idolizing decision but a tactical necessity for building resilient, sustainable, and adaptive organizations.

The main advantage of this chapter is thus the reformulation of the leadership issue in sustainability from individual persuasion to collective architecture design. It is not just implementation; it is activation: a deliberate attempt to build relational architectures that incorporate peripheral components. This is the working relationship that forms a viable future.

CHAPTER 2
SUSTAINABLE PERFORMANCE

2.1. Introduction to the Chapter

In an era of complex global crises, sustainability has evolved from a marginal issue to a central priority in organizations' strategic agendas. Sustainability is the ability to maintain and steward environmental, social, and economic systems that can meet present needs without compromising future generations' ability to meet their own needs. Sustainability implies the responsible use of natural resources, the promotion of social justice, and the linking of long-term economic sustainability with environmental stewardship. For sustainability in practice, one must balance competing demands, build trade-offs, and recognize the interrelation of ecological, social, and financial systems to create resilient and equitable systems (Brundtland Commission, 1987; Elkington, 1997; Epstein & Roy, 2001; Kim & Li, 2021).To summarize it, Sustainability, defined as the ability to meet present needs without compromising the future (Brundtland Commission, 1987), requires balancing environmental stewardship, social justice, and long-term economic viability.

Building on this foundation, sustainable performance redefines how we assess organizational success. Using standard financial measures, as well as measures to assess environmental and social outcomes (Linton & Klouda, 2013), sustainable performance refers to an organization's capacity to successfully fulfill its business objectives while achieving positive social and environmental outcomes. More broadly, sustainable performance reflects organizational performance in a Triple Bottom Line (TBL) sense (Elkington, 1997), which is both organizational success and beneficial to the world. The TBL framework conceptualizes organizational performance across three lines: profit (economic), people (social), and planet (environmental). Sustainable performance underscores the importance of balancing the three pillars of sustainability. It ultimately highlights organizations that are viable and competitive in the long run, depending on an organization's ability to simultaneously satisfy incumbent stakeholders (i.e., customers, shareholders, and employees) and create opportunities for future stakeholders (World Commission on Environment and Development, 1987). Achieving sustainable performance requires integrating sustainability into

the core strategy, including governance and operational activities that generate economic value or wealth while enabling social equity and environmental stewardship (Henri & Journeault, 2008).

The urgency of the global sustainability crisis requires a radical reframing of value creation. The traditional models, which consider economic, ecological, and social systems as distinct "silos" and employ linear thinking that fails to integrate these systems, have become outdated and ineffective, as they overlook the profound interdependence among these systems. Today, organizations that persist with siloed strategies risk becoming strategically inflexible and losing their competitive edge. Addressing the complex, cross-boundary, wicked problems of sustainability must be viewed through an integrated approach and collective action, especially at all levels of small and medium enterprises (SMEs). This chapter argues that an integrated approach is operationalized through the synergy of the ESG and SDG frameworks, ultimately enabled by a fundamental shift toward relational leadership. To overcome these siloed approaches, leadership must shift its role from isolated and siloed decision-making to relational, leaderful practice, where decision-making is shared, participatory, and distributed across the organization (Raelin, 2011). These leaderful practices leverage cross-sector collaboration, active engagement, and collective accountability to create conditions that foster sustainable environmental, social, and economic goals (Elkington, 1994; Folke et al., 2016).

Sustainable development, as officially defined by the Brundtland Commission (1987), is "development that meets the needs of the present without compromising the ability of future generations to meet their own needs," which is the basis for many modern sustainability concepts, including ESG integration and sustainable performance measurement (World Commission on Environment and Development, 1987). In fact, this vision is grounded in the concept of intergenerational equity, a principle also emphasized by the Brundtland Commission (1987), which argues that we must meet present needs without compromising future needs. Social-ecological resilience frameworks also argue that human well-being and economic growth are contingent on the health of the planet (Folke et al., 2016). The urgency for integrated thinking is evident: recent evaluations of the planetary boundaries framework indicate that humanity has already exceeded the safe and just Earth system boundaries for six out of nine critical Earth systems, with justice considerations further constraining these limits for climate and atmospheric aerosol loading (Rockström et al., 2023). This ecological crisis overlaps with rising wealth inequality, as highlighted in studies on patrimonial capitalism (Piketty, 2022). Despite the enduring relevance of

Elkington's triple bottom line, many organizations still segregate these dimensions, missing the opportunity for synergistic sustainability outcomes.

For instance, Piedmont wineries that focused on organic certification (and lacked water management policies) incurred 27% higher operational costs and made minimal contributions to SDG 6 (Clean Water) and SDG 12 (Responsible Consumption) (Fiorese et al., 2022). Additionally, Unilever's Sustainable Living Plan contributed to a 47% reduction in water usage, providing value to the company while achieving environmental goals (Unilever, 2023). This suggests that environmental and profit goals can be met without compromising one another. Additionally, Patagonia is implementing a living wage policy for all workers in its supply chain, which again demonstrates that all-inclusive capitalism fosters an employee culture that promotes loyalty, engagement, and productivity (Eccles & Klimenko, 2023). These case studies demonstrate that relational leadership, which aims to foster distributed agencies and collaboration, is a tangible and viable solution for achieving sustainable performance (Geissdoerfer et al., 2023). While these cases from large corporations demonstrate the potential of integrated strategies, the context for Small and Medium Enterprises (SMEs) presents distinct challenges.

The challenge of implementing sustainability in practice is particularly acute in developing economies, where resources are limited, and institutions are weak (Mair & Marti, 2009). Despite the clear potential of integrated strategies, a fundamental disconnect persists between sustainability ambition and on-the-ground implementation. This is the core challenge of sustainable contemporary performance. The disconnect, which I term the 'Relational-Performance Gap,' is the failure to translate the organic, relational capabilities inherent in many SMEs, their community ties, informal networks, and inherent goodwill, into systematic, measurable performance aligned with formal ESG/SDG frameworks. The problem is not a lack of will or relational strength, but a lack of architectural design—precisely the prescriptive architecture provided by Leadership-as-Practice (LAP) to formalize it.

The complicated and worldwide reporting structures contributing to dubious access to metrics impede SMEs' ability to connect intentions to actions, while equally producing alternative forms of governance, e.g., platform cooperatives (Scholz, 2016) and polycentric systems (Ostrom, 2010), that demonstrate how context-specific, distributive decision-making can assist local actors oriented to sustainable agendas.

For example, Javanese batik cooperatives generate beautiful textiles using an environmentally sustainable dyeing process that maintains environmental balance, protects their people, and preserves cultural traditions (Wahyuni & Lestari, 2022). Ghanaian cocoa farmers are adopting and applying biochar and agroecological practices that restore soils and cultural resilience whilst securing better livelihoods (Grohs, Grumiller & Peham, 2023). These examples demonstrate how remarkable sustainable performance can emerge on the margins of capitalism when leadership, governance, and strategy align with a sustainable future, fostering a participatory, relationship-based process.

To address this gap, this chapter will explore these dimensions, frameworks, and the essential leadership practices that together constitute the pathway to exceptional sustainable performance. The following sections will explore the three pillars of sustainability, the ESG and SDG frameworks, and the sustainability reporting landscape, consistently analyzing them through the lens of this central argument. In Chapter 1, it was established that Leadership-as-Practice (LAP) provides the essential prescriptive architecture to realize the diagnostic potential of Relational Leadership Theory. This chapter applies that framework to the domain of sustainable performance, positioning it as the critical solution to the Relational-Performance Gap identified above.

In this chapter, it is shown that wicked problems cannot be solved through mere technical fixes, top-down directives, or improved reporting mechanisms. Instead, performance that lasts over time happens when Leadership-as-Practice (LAP) provides the crucial link. We propose that the prescriptive framework of the Four Cs (Collective, Concurrent, Collaborative, Compassionate) can be intentionally applied to re-engineer organizational processes, thereby connecting relational capacity to observable performance outputs and closing the Relational-Performance Gap. The subsequent chapter will illustrate that digital transformation is the most significant test case for this model, demonstrating how technology can either reproduce old hierarchies or be harnessed to operate and scale these sustainability outcomes intentionally.

2.2. The Three Pillars of Sustainability

The Three Pillars of Sustainability—environmental, social, and economic—are characterized by deep interdependence, inherent paradoxes, and persistent tensions that lie at the heart of the complexity of sustainable development. Intergenerational equity, as outlined by the Brundtland Commission (1987), provides the moral foundation for sustainability. However, it embodies

inherent tensions: economic systems pursue infinite growth, whereas ecological systems operate within natural limits. To assess how companies navigate these challenges, Environmental, Social, and Governance (ESG) factors serve as non-financial performance indicators, capturing environmental stewardship, stakeholder relationships, business ethics, and corporate governance (Kim & Li, 2021). These tensions are highly evident in the economic pillar. While the model of the Triple Bottom Line (Elkington, 1997) sought to remedy these tensions, some thinkers, such as Raworth (2022), would contend that the operating economic model is operating beyond a 'safe space' for humanity, in direct opposition to, for example, the extractive business model used by the fast fashion industry (Niinimaki et al., 2020).

The chasm between theory and practice is striking: we have surpassed planetary boundaries (Rockström et al., 2023), yet the corporate sustainability conversation continues to flourish. Concerning a core contradiction of the economic model, meta-studies purport that sustainable businesses may also enjoy better outcomes than their peers in terms of financial success (Eccles et al., 2014), despite an extractive business model not only yielding high profits, but it is still viable enough to warrant further investment, producing a powerful inertia against change. According to Raworth (2022), this is a growth contradiction in which mainstream market demands tend to actively work against a defensible redesign of business processes. In parallel to the challenges identified in the social pillar, there are notable examples. One of them is Patagonia's strategy of ensuring living wages, a core indicator that led to a 30% reduction in turnover (Eccles & Klimenko, 2023), illustrating the benefits of fairness.

However, these benefits are clearly starkly differentiated from labor strife typically displayed in many notable large corporations. This challenge is even more pronounced for SMEs. For SMEs, this is the direct expression of the Relational-Performance Gap: a lack of resources to engage with social impact, which means firms are motivated to do the least they can to avoid the cost of non-compliance. These gaps are even bigger in emerging economies, where challenges include collecting enough data, a weak culture of reporting, and a lack of structures to support it all. In the environmental pillar, we see examples such as Unilever (a 47% reduction in water use) and Ørsted (a 90% increase in renewable energy). While these organizations demonstrate what is possible, we still require a much larger scale of practice. Geissdoerfer et al (2023) conclude that "The dream of a Circular Economy is still beyond the reach of most. The benefits are clear, but in reality, fewer than one in ten businesses have even attempted to adopt a circular model. For small and medium-

sized companies, this is not a lack of ambition; it is simply a matter of cost. The initial investment feels like a mountain too high to climb, locking them out of a more sustainable, ultimately more efficient way of operating. This implementation gap confirms that solutions require more than technical fixes; they necessitate a transition to relational governance (Uhl-Bien, 2006)—a shift that embeds sustainability in the organizational DNA by redistributing agency and making collaboration the norm (a challenge explored in section 2.6).

The following sections will examine the distinct yet related challenges within each pillar, aiming to understand the disconnect better and lay the groundwork for integrated solutions.

2.2.1 Environmental Dimension: Strategic Imperatives and the SME Challenge

The environmental aspect of sustainability refers to an organizations or system's ability to manage natural resources responsibly, minimize environmental impact, protect biodiversity, and sustain the health and resilience of ecosystems over time, ultimately enabling long-term human and economic activities (Elkington, 1997; Lozano, 2008). Environmental sustainability has evolved from a secondary concern to a primary determinant of organizations' viability and resilience in the Anthropocene, fundamentally changing business strategy. Based on the Brundtland Report's "to meet the needs of the present without compromising the ability of future generations to meet their own needs" (WCED, 1987) definition, environmental sustainability is now operationalized by scientific approaches such as planetary boundaries (Steffen et al., 2015), which provide quantitative limits for the key Earth systems, and emphasize the urgent need to rethink production and consumption. In practice, this means that businesses must incorporate environmental stewardship into their core strategy, not merely as a moral obligation, but rather as a necessary strategic priority that can lead to innovations, enhanced reputations, and reduced long-term risk (Hogrefe & Bohnet-Joschko, 2023). This strategic imperative manifests primarily through three key action areas: decarbonization, circularity, and ecosystem protection.

A company's actions toward decarbonization and greenhouse gas reduction often represent the most public and impactful areas of sustainability activity. For example, Ørsted in Denmark has transitioned from one of the most coal-intensive energy companies in Europe to a leader in renewables, with ~90% of its energy generated from renewable sources. Ørsted's carbon emissions were reduced by 86% (2006-2020), and its profitability and valuation improved overall, with market capitalization more than doubling over the decade (Radulović et al., 2021). Considerable

decarbonization can be achieved while delivering superior returns to investors. Similarly, Italy's Enel has committed to phasing out all fossil-fuel power generation and achieving net-zero emissions by 2040, and investing massively in wind, solar, and hydro generation (Enel S.p.A., 2024). In the manufacturing sector, Tesla has committed to zero waste and low emissions at its Gigafactories, as outlined in the company's formal reports. For example, Tesla has reported that its Berlin Gigafactory reached 100% renewable electricity in 2023. Additionally, Gigafactory Shanghai reportedly consumed 35% less electricity per vehicle than the original factory in Fremont, California (Tesla, 2023). These efficiency gains are central to the business model, as they decrease the environmental footprint while also enabling lower production costs, as reported by Tesla (2023).

A second critical strategy for sustainable performance is to adopt a circular economy, which preserves the value in products we currently discard by transforming the linear 'take-make-dispose' model into one that devises systems to reuse, repair, and recycle materials, thereby minimizing adverse environmental impact. For example, one known model for many is IKEA's buy-back and resale of furniture from its customers. Encouraging customers to return used products for refurbishment and resale in-store will keep thousands of tons of furniture out of landfills (IKEA, 2023). Circular economy models will also reduce waste, lower waste management costs, and open up more sources of income, while driving customer loyalty to the brand. This compares with estimates from the Ellen MacArthur Foundation and the World Economic Forum/McKinsey of a $4.5 trillion economic value to businesses by 2030, as moving into a circular economy will provide. (Ellen Macarthur Foundation, 2015). Small businesses are also progressing.

For example, Indonesian textile cooperatives have installed straightforward filtration systems to reuse 87% of wastewater, while community microgrid initiatives in Kenya are collaboratively managing solar energy to give old electronics and batteries a second chance. Moreover, Italian pasta manufacturer Fabianelli has a strong partnership with regional wheat growers to promote sustainability and reduce waste through a circular supply chain (Runfola, Monteverde, & Picciotti, 2024). These examples of both corporate and SBE initiatives clearly illustrate that circular systems decrease environmental impact, improve supply chain resilience, and generate profitability through savings and new market opportunities (Manninen et al., 2020). The Ellen MacArthur Foundation provides additional evidence that redesigning supply chains for a circular economy can create robust economic opportunities for all businesses, reduce reliance on finite resources,

and buffer financial risk from volatile raw material prices (Ellen MacArthur Foundation, 2021). While decarbonization and circularity remain the top two actions to reduce environmental impact, a third focus area of growing interest in environmental sustainability performance is protecting ecosystems and biodiversity.

Companies are increasingly expected to manage habitat destruction and manage natural resources in their operations and supply chains. This is particularly relevant in agriculture, forestry, and any intensive industry. Regenerative agriculture programs provide a powerful example: Nestlé initiated agroforestry programs with its farmers (Nestlé, 2024), in which trees are interplanted on farms to rebuild soil health, sequester carbon, and increase biodiversity. The preliminary results indicate that up to 5 tons of CO_2 can be sequestered per hectare per year, accompanied by a ~20% yield increase, with farmers receiving higher premiums for their sustainable crops (Tallis et al., 2021). At a smaller scale, some Ghanaian cocoa farmers have adopted low-cost biochar techniques to enrich soils – a practice that not only sequesters carbon but also improves crop productivity (Tallis et al., 2021).

In addition to agriculture, many businesses evaluate the environmental impact of their new initiatives, develop plans for ecological restoration (e.g., planting trees or conserving wetlands to offset the area they converted), and have sourcing policies in place to avoid materials associated with deforestation or ecosystem degradation. It is in the organization's interest to take such actions to demonstrate its commitment to the biosphere's resilience, to earn the trust of its customers, investors, and regulators, who are increasingly concerned that businesses operate within planetary boundaries. Therefore, acting in ways that support biodiversity becomes a long-term risk management strategy for businesses, intended to mitigate future potential supply chain losses, protect the natural services (e.g., pollination, water purification) that economies rely on, and enhance the organization's brand image as an environmental steward. In addition to these internal initiatives, policy frameworks and transparency requirements are fast-tracking the sustainability transition.

Regulations, such as the EU's Corporate Sustainability Reporting Directive (CSRD), are driving this transformation by requiring disclosures and accountability, prompting firms to adapt. Progressive firms view such regulatory policies as opportunities rather than impediments. For example, anticipating the implementation of extended producer responsibility laws, Patagonia

expanded its Worn Wear program to repair and resell second-hand clothing, thereby tapping into a new reuse opportunity. Patagonia has achieved an overall reuse rate of 87% through Worn Wear, established a sustainable and profitable line of refurbished goods (with $83 million in sales), and exceeded regulatory compliance requirements. Conversely, firms that lag in compliance or decarbonization will be financially penalized. Research shows a connection between a firm's carbon risk profile and the increased cost of capital; investors and lenders are now pricing in the financial risks of climate policy/regulatory changes and market deterioration (Jung, Felson, & Schmeisser, 2018).

In short, regulation and capital markets are conveying that you will pay more for unsustainable business practices, in terms of risk and cost. The business benefits from sustainability leadership are striking. The circular model employed by Patagonia not only generates new revenue but also strengthens customer loyalty to the brand's mission. Johnson & Johnson has invested in energy efficiency and renewable power across its sites, resulting in $300 million in energy savings from reduced emissions between 2010 and 2020 (Environment & Sustainability, 2021). Furthermore, companies with sustainability-focused strategies tend to exhibit higher levels of innovation. Companies with sustainability-driven strategies are more innovative and technology-centered than those with less sustainable approaches. There is evidence of a strong positive relationship between environmental, social, and governance (ESG) performance and patent outputs.

The literature indicates that companies with strong sustainability initiatives file significantly more patents than those with less sustainable operational strategies, especially in green technology (Ambec & Lanoie, 2008; Grewal & Dharwadkar, 2022). Environmental sustainability is not only a cost or a drag on performance; it is a significant source of competitive advantage, driving innovation and delivering operational cost savings. Whether stemming from the ethical objective of the Brundtland Report or the scientific framework of planetary boundaries, environmental sustainability is clearly both a moral responsibility and a business opportunity. It can even redefine a company's competitive edge. Unilever's experience is illustrative of how it fully integrates sustainability into its business (through its Sustainable Living Plan), halving its environmental footprint while driving stronger growth for its brands. Unilever's "Sustainable Living" brands grew 69% faster than the rest of the business. They delivered 75% of the company's growth in 2018, showing that doing good and doing well can reinforce one another. For businesses of any size, the focus should now be on accelerating the adoption of such sustainable practices, rethinking

how success is measured, reshaping supply chains for low impact, and forming regenerative partnerships across industries.

This measurement challenge reflects what we are conceptualizing as the Relational-Performance Gap. SMEs often have sustainable solutions built on informal relational practices, and their day-to-day operations align well with their organizational culture; however, their ability to formally determine their capacity or scale is often beyond reach. This ongoing measurement challenge highlights the need for frameworks that bridge organic capacity and formal performance, a gap the following table seeks to address. As a listed manufacturing SME, the Sabaf Group demonstrates that structured, integrated environmental sustainability is achievable and provides a competitive advantage. Sabaf was selected as a case study because its integrated reporting provides tangible evidence that the Relational-Performance Gap is being bridged, demonstrating how relational strengths are systematically translated into formal, audited ESG outcomes (Source: Sabaf Annual Report 2024). Sabaf, as described in Table 2.1, operationalizes each element/section of environmental performance as a function of variables and investments, providing a valuable, tangible framework for an SME to visualize the complexities of sustainable development. The Sabaf case suggests that for an SME, the phenomenon of Leaderful Practices is no longer theoretical but an important practicality that delivers performance, which in turn translates into ESG objectives, while also directly addressing the Relational-Performance Gap.

The strategic importance of these environmental actions is further clarified by examining their specific indicators and business applications, as summarized in Table 2.1

Table 2.1: Environmental Sustainability Aspects, Indicators, and Business Integration

Aspect	Key Indicators & General Examples	Contribution to Sustainable Development	Key References	SABAF Case Study & Examples	Relevant SDGs
Resource Efficiency	- Energy & water consumption; energy intensity. - Example: SME installing LED lighting and water-saving fixtures.	Efficient use of energy, water, and raw materials reduces waste and environmental impacts.	Jaiswal, 2022; Batuşaru & Radoiu, 2021	- Investment: €2.5M in photovoltaic system. - Target: 10% of Ospitaletto plant's energy to be self-generated by 2025.	SDG 7, 12
Emissions Reduction	- Scope 1 & 2 CO_2 emissions; CO_2 intensity. - Example: SME switching	Lowering greenhouse gas emissions supports global climate goals	Radulović et al., 2021; IPCC, 2021	- Target: 1,500 tons CO_2 reduction at Ospitaletto by 2026 (LTIP).- Action:	SDG 13

Aspect	Key Indicators & General Examples	Contribution to Sustainable Development	Key References	SABAF Case Study & Examples	Relevant SDGs
	to electric vehicles for its fleet.	and mitigates climate change.		Ongoing emission reduction plan.	
Circular Economy	- % of materials recycled/reused, waste recovery rate. - Example: SME using recycled packaging materials.	Promotes resource recovery, reduces waste, and fosters innovation in production.	Lee et al., 2021; Geissdoerfer et al., 2017	- Performance: 46.8% of total resource inflows from recycled materials. - Strategy: Circular economy as a material strategic area.	SDG 12
Pollution Prevention	- Emissions of pollutants; hazardous waste. - Example: SME implementing a chemical management system.	Safeguards ecosystems and public health through effective waste and emission controls.	Asgari, 2022; Moallemi, 2021	- Certification: ISO 14001 Environmental Management Systems at key sites. - Policy: Formal commitment to pollution prevention.	SDG 3, 12
Climate Change Mitigation & Adaptation	- Share of renewable energy, resilience investments. - Example: SME developing climate resilience plans.	Focuses on emission reduction, sustainable energy, and adaptive capacity.	IPCC, 2021; Jaiswal, 2022	- Action: Photovoltaic installation is key to decarbonization and the climate resilience plan.	SDG 13
Intergenerational Responsibility	- Long-term sustainability investments. - Example: SME making 30-year sustainability investments.	Ensures current operations do not compromise future generations.	Daly, 1996; Raworth, 2017	- Performance: Reducing CO_2 intensity by 14% compared to 2023.	SDG 12, 13
Biodiversity Conservation	- Environmentally certified suppliers; land management. - Example: SME implementing habitat protection measures.	Protects ecosystems through responsible sourcing and land use.	Tallis et al., 2021; Nature, 2021	- Action: Requires suppliers to be ISO 14001 certified, limiting biodiversity loss in the supply chain.	SDG 15
Policy Integration & Global Strategy	- ESG policies; alignment with SDGs. - Example: SME aligning operations with SDGs.	Integrates environmental objectives into organizational policies and international frameworks.	Lyytimäki et al., 2020; Guo & Hong, 2013	- Alignment: Actions aligned with SDGs 7, 12, and 13.- Governance: ESG targets embedded in board-approved strategies.	SDG 17
Green Innovation & Technology	- R&D investment in green tech; eco-design. - Example: SME developing eco-friendly products.	Promotes renewable energy, eco-design, and green manufacturing.	Tang et al., 2020; Barbose et al., 2021	- R&D: 100+ engineers working on innovation; €2.8M capitalized. - Focus: Low-emission burners and induction cooking components.	SDG 9

The Sabaf case demonstrates that achieving integrated TBL performance requires embedding Leaderful Practice into action. Their cross-departmental teams for ESG targets exemplify Collective ownership; their simultaneous investment in R&D and photovoltaic systems is illustrative of Concurrent agency; collaboration with suppliers and universities demonstrates Collaborative sensemaking; finally, their attention to training (60 hours/employee) and safety ("People first!") demonstrates compassionate concern. Sabaf's success stems not merely from managing ESG factors, but from a leadership architecture intentionally designed to be leaderful.

2.2.2 Social Sustainability Aspects, Indicators, and Business Integration

While the environmental pillar focuses on planetary boundaries, the social dimension addresses the human systems within those boundaries. The social dimension of sustainability refers to an organization's capacity to manage social equity, human well-being, and stakeholder relationships, thereby measuring its broader influence on people and communities (Elkington, 1997; Lozano, 2008). This definition, in turn, reflects the organization's aspirations for a just, fair, and healthy society and conveys its contribution to long-term business success (Hogrefe & Bohnet-Joschko, 2023). This dimension is vital to the organization obtaining and maintaining a "social license to operate," or the acceptance of various stakeholders and the public, as it exists in the future, and is therefore also of significant importance to the organization's long-term viability. Good social sustainability performance can also reduce reputational risk, enhance employee morale, and strengthen ties to the community, collectively serving to produce a more resilient and sustainable business model.

Social sustainability is inextricably linked to its economic counterpart; one cannot ensure long-term viability without the other. Economic sustainability demands prudent resource management and the creation of value that benefits the broader community and ecosystem (Eccles & Serafeim, 2013). Social sustainability complements this by ensuring business practices respect labor rights, promote community well-being, and ensure inclusive growth. For example, Porter and Kramer (2011) argue that firms must create shared value, ensuring that business success is aligned with social progress. Firms that adopt the principles of shared value will experience sustainable growth and be better equipped to address significant societal inequities.

Performance in social sustainability can be evaluated via several key indicators. A leading indicator is the enterprise's commitment to free labor practices and human rights throughout its supply

chains, including safe working conditions, fair labor practices, and protected labor rights (Hutchins & Sutherland, 2008). This is critically important for social sustainability in a globalized world, where firms may source materials for manufacturing from countries that lack regulation and labor protections (Dahan, 2023). However, corporate methods for protecting workers often prioritize mitigating risks to brand reputation over genuine welfare (Ali, 2020). Equally crucial is employee well-being and engagement, which extends beyond legal compliance. This involves investing in employees' physical and mental health, providing development opportunities, and fostering an inclusive workplace culture that offers development and training. Studies show that organizations focused on employee well-being and engagement achieve higher productivity, lower turnover, and improved overall performance (Gallup, 2016). Engaging employees fosters a positive internal culture, which in turn strengthens external relationships, demonstrating that both internal and external social capabilities are nurtured (Hogrefe & Bohnet-Joschko, 2023).

Social sustainability is also assessed through a company's community engagement and development efforts. Companies that proactively contribute to the well-being of the local communities where they operate through philanthropic initiatives, employee volunteer programs, or by implementing shared value strategies create more resilient communities. Engaging with community stakeholders enables companies to align their CSR initiatives with local needs, build trust, and co-create solutions that promote long-term social and economic stability (Saka-Helmhout, 2024). One example of this is Patagonia's partnership with the Bears Ears Inter-Tribal Coalition, which supports Indigenous stewardship of ancestral lands in Utah. This collaboration emphasizes co-management and raises awareness of Indigenous ecological practices, demonstrating that businesses can integrate social sustainability into their operations and benefit local communities. For instance, Fabianelli, an Italian SME in the pasta industry, serves as a notable example of community engagement through its partnerships with local wheat growers. By relying on relationships that go beyond transactional exchanges, Fabianelli fostered co-creative cooperation, demonstrating not only sustainability in its operations but also contributing to social and economic success for individuals in its local farming community (Runfola, Monteverde, & Picciotti, 2024). With Formabilio, the Italian furniture company brings together different stakeholders (designers, suppliers, consumers) in the product design process. This demonstrates active community engagement that promotes both local development and sustainability. SMEs are

implementing shared value strategies that promote community engagement while enabling innovation (Caridà et al., 2016).

Effectively implementing these indicators is fraught with challenges, not least of which is the fundamental constraint of extreme economic inequality worldwide. The existence of such extreme inequality shapes and limits the possibilities of all corporate behavior. Indeed, 10% of the world's population controls 52% of the global income (UN, 2023). Such inequality challenges the notion of corporate social improvement, and it is more than a mere statistic; it is generated by competing economic and sociological ideologies, which define the problem and its solution differently.

Neoliberal scholars often view inequality as a market failure that can be addressed through mechanisms like corporate social responsibility (CSR). For instance, Vallentin (2022) discusses how CSR is considered a liberal concept within neoliberal thought, reflecting a belief in market-based solutions to social issues. Marxist scholars argue that the structural exploitation inherent in capitalist systems necessitates a shift from capitalist relations of production to worker-owned forms of production. For instance, Garrido (2020) discusses how worker cooperatives offer a more just form of enterprise structure compared to traditional hierarchical capitalist firms. Indigenous scholars, such as Tuck and Yang (2012), perceive this as a perversion of relational exchanges and the destruction of traditions of communal wealth distribution.

These competing paradigms directly influence organizational practices, as illustrated by their approaches to social sustainability. An example of this is Microsoft's $1 billion DEI initiative, which can be characterized as a liberal feminist perspective or a focus on diversity and inclusion (Nussbaum, 2000; Crenshaw, 1989). Patagonia's landback initiatives, which directly help Indigenous communities, demonstrate that businesses can incorporate social sustainability into their operations, benefiting local communities (Escobar, 2023).

Similarly, Unilever's disability-inclusive design aligns with an intersectional framework, creating a more inclusive environment for all employees (Crenshaw, 1989). These organizational practices highlight how different ideological stances shape interventions, ranging from large-scale diversity initiatives to community-led solidarity economies. These organizational practices demonstrate how different ideological stances influence interventions, ranging from large-scale diversity initiatives to community-run solidarity economies. These competing paradigms, while distinct in the academy, collectively convey the Relational-Performance Gap as a fundamental confusion

over how to value the social outcome, leaving SMEs without a straightforward path from intention to measured impact.

Table 2.2 below synthesizes these complex social dimensions, linking key aspects and indicators to their contributions to sustainable development.

Table 2.2: Social Dimensions of Sustainability: A Framework and Case Study

Aspect	Key Indicators & General Examples	Contribution to Sustainable Development	Key References	SABAF Case Study & Examples	Relevant SDGs
Human & Social Capital Development	- Employee training; well-being programs. - Example: Tech company coding bootcamps.	Builds a skilled, healthy workforce; fosters inclusive development.	Becker, 1964; Garavan et al., 2016; Jaiswal, 2022	- Training: 60 hours/employee target (2024-2026 LTIP).- Well-being: Corporate climate surveys; "People: first!" safety project.	SDG 3, 4, 8
Employment within Planetary Boundaries	- ILO standards compliance; fair wages. - Example: Factory safety audits.	Ensures fair labor practices; aligns productivity with ecological limits.	Rockström et al., 2009; ILO, 2023; Raworth, 2017	- Policy: Social Policy aligned with ILO conventions.- Eco-efficiency: PV plant investment to reduce energy footprint per unit.	SDG 8, 12
Community Co-Prosperity	- Local partnerships; social programs. - Example: Company funding local schools and healthcare.	Strengthens resilient communities and enhances the social license to operate.	Sachs, 2015; Porter & Kramer, 2011; Tallis et al., 2021	- Local Impact: Major employer in local communities (e.g., 498 employees in Turkey).- Partnerships: Collaboration with local universities and Confindustria.	SDG 11, 17
Sustainable Procurement & Shared Value	- % ethical suppliers; supplier ESG audits; local procurement- Example: SME implementing ethical sourcing	Encourages shared value creation and reduces social/environmental risks in the value chain.	Sabaf Report, 2024; Seuring & Müller, 2008 Pagell & Wu, 2009; Giannakis & Louis, 2016	- Policy: Sustainable Procurement Policy- Action: Supplier self-declarations & ESG compliance- Focus: Local procurement where feasible	SDG 8, 12
Benefits for society (positive Externalities)	- Product circularity; social impact metrics - Example: EV manufacturer reducing urban air pollution.	Creates systemic benefits for society (e.g., improved health and well-being).	Elkington, 1997; Geissdoerfer et al., 2017; Jaiswal, 2022	- Health: Burners for emerging markets to replace harmful solid fuels. - Circularity: 46.8% of total resource inflows from recycled materials.	SDG 3, 7, 12
Public regulators	- Lobbying for sustainable regulations.	Accelerates industry-wide transformation and shapes the enabling environment.	Henderson, 2001; Crane et al., 2014;	- Action: Lobbying for regulations on thermoelectric safety	SDG 12, 16

Aspect	Key Indicators & General Examples	Contribution to Sustainable Development	Key References	SABAF Case Study & Examples	Relevant SDGs
(policy advocacy)	- Example: Advocating for carbon pricing.		Lyytimäki et al., 2020	devices and banning hazardous zamak.	
Stakeholder Engagement	- Stakeholder dialogue; customer satisfaction; ethical marketing.- Example: Bank implementing inclusive design and accessibility.	Builds trust, ensures equitable access to products/services, and strengthens societal well-being.	Freeman, 1984; Carroll & Shabana, 2010; Jaiswal, 2022	- Process: Formal dialogue channels for double materiality assessment. - Ethics: Whistleblowing system and company-wide Charter of Values.	SDG 10, 16

Concrete examples from around the world demonstrate the global applicability of these dimensions across a wide range of contexts. The global applicability of these dimensions is evident in a wide range of diverse contexts. For instance, the Sunkpa Shea Women's Cooperative in Ghana exemplifies community co-prosperity and human capital development. Similarly, solar cooperatives in Kenya demonstrate community co-prosperity through community-level energy autonomy. The Sunkpa Shea Women's Cooperative (Dimensions 1 and 5) in Ghana is an excellent example of how community-based and women-led cooperatives can integrate over 800 members into sustainable supply chains, through agroforestry and forest regeneration, along with attaining certifications such as Fair-Trade certification and organic status that allow them to export goods to better-paying international markets (Equator Initiative, 2022).

However, significant measurement gaps persist, particularly for SMEs, which often lack the tools to quantify their regenerative social value (Johnson & Schaltegger, 2016). Moreover, managerial short-termism can hinder decisions that contribute to achieving long-term sustainability (Gong & Ho, 2018). This is supported by evidence from EU banks, where higher ESG scores aligned with these social dimensions correlate with a lower probability of default and greater financial stability (Palmieri et al., 2024), underscoring the material value of social sustainability (Palmieri et al., 2024). (Palmieri et al., 2024).

2.2.3 Economic Sustainability Aspects, Indicators, and Business Integration

However, environmental and social efforts cannot be sustained without a redefined concept of economic viability, one that internalizes previously externalized costs. The economic aspect of Sustainability pertains to an organization's ability to create lasting wealth and economic value

without violating social equity (fairness) or environmental integrity (Elkington, 1997; Lozano, 2008). Economic sustainability is characterized by the intersection of three categories: financial or economic sustainability, ecological limits, and social equity, which define success for organizations in the Anthropocene. In 2011, Porter and Kramer introduced the concept of "shared value." Now, sustainability frameworks must contend with planetary boundaries (Rockström et al., 2023) and the "externalization paradox." According to Groh and Pitsch (2022), organizations have generated returns, in part, by externalizing social and environmental harms (such as greenhouse gas emissions). Organizations are now increasingly under pressure to internalize the historically externalized costs associated with them, which will be recognized as a material financial risk. This marks a significant transition from models designed to create economic incentives to mitigate impact to those in which not causing harm is embedded in economic logic.

Tesla's closed-loop battery recycling program demonstrates how circular systems can reduce material costs and mitigate environmental impact. Tesla has indicated that lithium, cobalt, nickel, and copper from returned batteries are fully extracted and reprocessed for reuse in new cells (Tesla, 2021). In agreement, Gaines (2014) demonstrates that recycling lithium-ion batteries can yield up to a 51% reduction in greenhouse gas emissions and produce raw material demands that are over twenty percent lower than those associated with primary production. While Tesla's closed-loop battery program showcases the economic potential of circularity for large firms, SMEs face considerable financial obstacles in realizing this level of systems innovation, underscoring the need for more accessible, relationally driven solutions.

For instance, Costco is an excellent example. Costco pays its employees substantially above the typical rate in the retail sector, and it also provides above-average benefits. Employees at Costco experience drastically lower turnover rates, with figures of less than 6% for employees and 1% for executives, in contrast to the retail sector average, which is often over 60% (Cascio, 2006). Higher wages and benefits have been demonstrated to increase productivity and build loyalty and culture among employees (Ton, 2012).

For small and medium-sized enterprises (SMEs), however, the barriers to making this integration a reality can be substantial. Many SMEs lack access to tools for evaluating or measuring their sustainability performance at the micro-level, which may limit their ability to navigate short-term financial pressures while adopting regenerative practices (Setyaningsih, 2024; Gong & Ho, 2018).

Despite the obstacles, as ESG frameworks gain traction, innovation remains the foundation for SMEs to progress. In terms of operations, Patagonia's vertically integrated supply chain demonstrates that ecological accountability has led to a 38% reduction in adverse environmental impacts, thereby increasing brand equity and improving operational performance (Eccles & Klimenko, 2023). At the institutional level, Unilever ties 50% or more of executives' bonuses to ESG goals, and the coconut cooperatives in the Philippines use different blockchain systems to improve governance and organizational sustainability (Han et al., 2024). In addition, measurement frameworks, such as the Global Reporting Initiative (GRI), should incorporate value accounting to identify local impacts. For instance, through ecological adaptation and technologies, the Vietnamese industrial water reviews achieved 90% reuse efficiency by introducing new adaptive features into their coal and coke systems (Franzoni & Avellino, 2020).

The primary challenge of economic sustainability is to maximize prosperity while staying within planetary boundaries, where financial viability (Eccles & Serafeim, 2013) cannot be decoupled from ethical supply chains (Freeman et al., 2010) and community health (Porter & Kramer, 2011). This also highlights the need for a multidimensional framework that integrates planetary boundaries with structural equity. Companies that adopt an integrated view of performance will be best positioned to flourish in the future, with long-term resilience and shared prosperity, rather than focusing solely on short-term profit. The following table (2.3) provides a practical application of economic sustainability through an integrated view.

Table 2.3: Economic Dimensions of Sustainability: A Framework and Case Study

Aspect	Key Indicators & General Examples	Contribution to Sustainable Development	Key References	SABAF Case Study & Examples	Relevant SDGs
Economic Performance and Profitability	- Sales revenue; EBITDA; EBIT- Example: SME increasing turnover while maintaining efficiency Example: SME optimizing resource allocation	Ensuring operations are profitable and sustainable, avoiding short-term gains that compromise long-term benefits. Measures efficiency in generating profits while considering sustainability	Sabaf Report, 2024; Porter & Kramer, 2011 Brigham & Ehrhardt, 2013; Jaiswal, 2022	- Revenue: €237.9M (2023) → €285.1M (2024)- EBITDA: €28.6M → €43.7M- Net Result: €6.9M (2024) Net Margin: 2.4% (2024)- Normalised Net Result: €16.0M	SDG 8, 9
Financial Performance	- Net financial position; shareholders' equity; debt ratios- Example:	Allocates funds to sustainable initiatives;	Sabaf Report, 2024; Freeman, 1984	- Net Debt: €73.9M (2024)- Equity: €173.7 (2024)- Debt/Equity: 0.43	SDG 8, 9

Aspect	Key Indicators & General Examples	Contribution to Sustainable Development	Key References	SABAF Case Study & Examples	Relevant SDGs
	SME maintaining a healthy balance sheet	views sustainability as a value-creating opportunity.			
Cash Flow Management	- Operating cash flow; investment cash flow- Example: SME managing cash for long-term projects	Builds resilient financial systems; ensures intergenerational equity.	Sabaf Report, 2024; Raworth, 2017	- Operating Cash Flow: €27.0M (2024)- Investment Cash Flow: (€14.7M)- Free Cash Flow: €12.3M	SDG 8, 9
Capital Investment & Innovation	- R&D expenditure; CAPEX; green tech investment- Example: SME funding sustainable R&D	Promotes sustainable innovation; drives long-term competitiveness.	Sabaf Report, 2024; Geissdoerfer et al., 2017	- R&D: €2.8M capitalized- CAPEX: €14.7M- Green Investment: €2.5M photovoltaic plant	SDG 7, 9
Risk Management & Resilience	- Financial risk exposure; debt management; contingency planning- Example: SME diversifying supply chain	Enhances the ability to manage economic shocks and climate-related risks.	Sabaf Report, 2024; World Economic Forum, 2023	- Risk Mitigation: Global production footprint- Monitoring: Continuous financial risk assessment- Strategy: Diversified market presence	SDG 8, 9

Ultimately, companies that prioritize sustainability as a key performance metric have the best chance of succeeding in the future of growth, which encompasses not only short-term profits but also long-term resilience and shared prosperity. Meaningful change requires a strong infrastructure and the ability to roadmap towards shared objectives - in this case, towards ESG and the SDGs - so that activities have a clear direction as they progress. This is the economic aspect of the Relational-Performance Gap: the inability to utilize informal, relational networks to attract capital and develop business models that can make sustainable economic practices financially viable. It constitutes a strong call for leadership that can bring together informal creativity and formal value.

2.3. ESGs and SDGs: definitions

Environmental, Social, and Governance (ESG) criteria constitute a framework for evaluating an organization's sustainability and ethical impact, representing the evolution of corporate social responsibility (CSR) into a core strategic mechanism (Friede, Busch, & Bassen, 2015) that embeds long-term planetary and societal well-being into business operations (Buchetti et al., 2024). While ESG frameworks are gaining traction, their practical effectiveness remains a topic of debate. Li et al.'s (2024) meta-analysis of 287 studies presented ESG as a modern governance instrument that

can create measurable indicators of planetary boundaries. However, a tension persists between the investor-centric ESG framework and the desired socio-environmental transformation outlined in the Sustainable Development Goals (SDGs). This investor focus is part of *why* the Relational-Performance Gap exists for SMEs—their relational strengths are not always captured by metrics designed for capital markets.

Market forces are driving ESG adoption with considerable power. Between 2020 and 2023, sustainable fund inflows surged by 240%, and 68% of Gen Z investors reported prioritizing ESG-aligned companies (Inawati & Rahmawati, 2023). Firms with strong ESG performance have lower volatility during climate shocks (19%) and enjoy reduced borrowing costs (45 basis points) (Parikh et al., 2023; Cheng et al., 2014). However, organizations face systemic challenges in implementing ESG. Measurement inconsistency occurs when a company ranks in the top 10% with one rating agency but in the bottom 20% with another (Berg et al., 2022). Many SMEs, which constitute 82% of the market, lack the resources to navigate over 200 ESG frameworks (Martínez-Peláez et al., 2024). Greenwashing remains a critical concern, with more than 35% of carbon-neutral claims found to misrepresent actual reductions (The Guardian, 2024). Furthermore, 73% of executives admit to deprioritizing ESG targets during economic uncertainty, highlighting the tension between short-term goals and long-term sustainability commitments (Beazley, 2025).

In response to these challenges, regulatory interventions have emerged to standardize and enforce ESG accountability. The Corporate Sustainability Reporting Directive (CSRD) in the European Union requires approximately 50,000 companies to report on the sustainability impacts of their activities, using a double materiality approach that encompasses both financial impacts on the company and broader impacts on society and the environment (European Commission, 2023).

These reports must adhere to the European Sustainability Reporting Standards (ESRS), which mandate disclosures across environmental, social, and governance categories. For example, the environmental standards require reporting on climate risk and biodiversity (e.g., Ørsted's emissions reductions), the social standards cover workforce equity and human rights (e.g., Siemens' gender pay gap reporting), and the governance standards address anti-corruption and risk management (e.g., Unilever's governance disclosures).

Credible disclosure itself relies on relational practices, which build stakeholder trust and confidence. Embedding relational practices—such as collaboration, collectiveness, concurrency,

and compassion—fosters the trust necessary for credible ESG reporting. (Cunliffe & Eriksen, 2011; Fulop & Topor, 2025).

Beyond compliance, leading organizations demonstrate the transformative potential of ESG when it is fully integrated. Unilever reduced its environmental footprint by 52% while growing "Sustainable Living" brands 69% faster than competitors. Taiwanese Semiconductor cut water use by 35% through circular systems, saving $140 million annually (Lee et al., 2021). SMEs are also actively integrating ESG into their operations. For instance, Italian pasta manufacturer Fabianelli collaborates with local wheat growers to ensure circular supply chains, and Formabilio engages designers, suppliers, and consumers in co-designing products, thereby strengthening both community involvement and environmental stewardship (Runfola, Monteverde, & Picciotti, 2024; Caridà et al., 2016).

These examples illustrate the financial benefits of ESG across organizations of all sizes, yet a disparity in implementation persists. This highlights the Relational-Performance Gap in practice: while multinationals often rely on formalized systems, SMEs frequently possess inherent relational capabilities that enable them to achieve sustainable outcomes. Proper ESG integration extends beyond reporting into the core of governance and operations. Forward-thinking organizations establish board-level oversight, embed ESG-linked KPIs into executive remuneration, and align sustainability goals with supply chain, HR, and investment decisions (Kotsantonis et al., 2016; Eccles et al., 2014). This operational embeddedness ensures accountability and improves risk management, strengthening long-term resilience (Grewal et al., 2022). Meaningful reporting, through frameworks such as GRI, SASB, and the CSRD's double materiality principle, transforms these commitments into transparent and measurable outcomes (European Commission, 2023). Unilever, Ørsted, and Nestlé illustrate how this reporting informs strategy, with more accurate traceability and verification—a process greatly enhanced by digital technologies such as blockchain and AI (Cui, 2023; He & Chen, 2024). This combination of integrated action and transparent reporting is key to establishing stakeholder trust.

Even with these structures in place, full integration remains a challenging task and requires collaboration across departments and leadership support at all levels (Eccles et al., 2020; Ioannou & Serafeim, 2017). However, when done right, ESG shifts from a compliance exercise to a strategic necessity. Ultimately, through the synergy of technology, regulation, and relational

leadership, ESG can be embedded into an organization's strategic DNA, transforming it from a compliance obligation into a core source of long-term value and resilience.

The Sustainable Development Goals: SDGs

While ESG provides a corporate lens, the Sustainable Development Goals (SDGs) offer a complementary global agenda. The Sustainable Development Goals (SDGs), established as a universal call to action by UN member states in 2015, build upon the earlier Millennium Development Goals and address critical global challenges through an integrated framework that combines economic growth, social inclusion, and environmental protection.

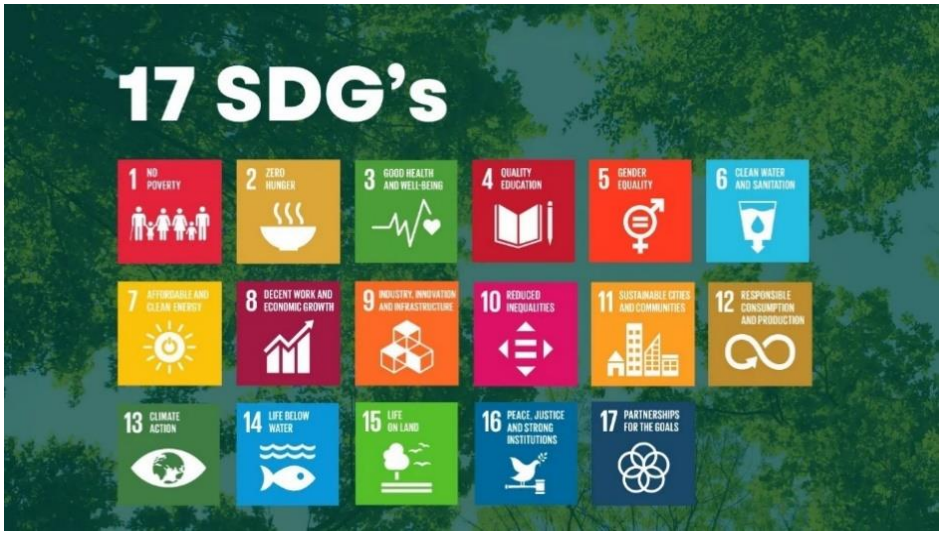
This comprehensive approach acknowledges the intricate, interconnected dynamics of global development, in which progress in one area affects outcomes in others. The goals apply universally to all countries and stakeholders, emphasizing mutual responsibility and necessitating collaborative effort across sectors. This comprehensive approach acknowledges the intricate dynamics of global development and seeks to achieve sustainable progress without compromising the needs of future generations (Radu et al., 2023; Palau-Pinyana et al., 2023; Adams, 2017).

The 17 SDGs (Figure 2.1) address fundamental global challenges: (1) No Poverty, (2) Zero Hunger, (3) Good Health and Well-being, (4) Quality Education, (5) Gender Equality, (6) Clean Water and Sanitation, (7) Affordable and Clean Energy, (8) Decent Work and Economic Growth, (9) Industry, Innovation and Infrastructure, (10) Reduced Inequalities, (11) Sustainable Cities and Communities, (12) Responsible Consumption and Production, (13) Climate Action, (14) Life Below Water, (15) Life on Land, (16) Peace, Justice and Strong Institutions, and (17) Partnerships for the Goals.

These goals apply universally to all countries and stakeholders, emphasizing mutual responsibility and interconnectedness. The framework encourages coordinated action across governments, civil society, and private-sector organizations to address global challenges systematically (Palau-Pinyana et al., 2023; Journal of Management, 2025; Radu et al., 2023).

The private sector plays a vital role in advancing the SDGs through innovation and value creation. Integrating SDG principles into corporate strategy enables companies to manage sustainability risks, comply with evolving regulations, and enhance their competitive positioning.

Figure 2.1: 17 SDGs



Source: https://sdgs.un.org/goals

Alignment with the SDGs drives innovation in products, services, and operational methods, while strengthening stakeholder relationships through a demonstrated commitment to social and environmental stewardship. This strategic alignment enables organizations to contribute to global development agendas while improving performance and resilience metrics (Palau-Pinyana et al., 2023; Radu et al., 2023).

Table 2.4: SDG Framework. Core Objectives and Organizational Significance

SDG & Name	Core Objective	Organizational Significance & Business Applications
1. No Poverty	Eradicate extreme poverty for all people everywhere.	Implementing living wage policies, inclusive hiring, and supporting economic development in local communities.
2. Zero Hunger	End hunger, achieve food security, and improve nutrition.	Promoting sustainable sourcing, reducing food waste in operations, and supporting resilient agricultural practices.
3. Good Health & Well-being	Ensure healthy lives and promote well-being for all.	Implementing robust employee health and safety programs, wellness initiatives, and ethical healthcare product marketing.
4. Quality Education	Ensure inclusive and equitable quality education and promote lifelong learning opportunities.	Investing in employee training and development, supporting STEM education, and enabling lifelong learning programs.

SDG & Name	Core Objective	Organizational Significance & Business Applications
5. Gender Equality	Achieve gender equality and empower all women and girls.	Ensuring pay equity, promoting inclusive leadership, and enforcing anti-discrimination and diversity policies.
6. Clean Water & Sanitation	Ensure availability and sustainable management of water and sanitation for all.	Implementing water stewardship practices, reducing water consumption in operations, and improving wastewater management.
7. Affordable & Clean Energy	Ensure access to affordable, reliable, sustainable, and modern energy for all.	Transitioning to renewable energy sources and enhancing energy efficiency across facilities and supply chains.
8. Decent Work & Economic Growth	Promote sustained, inclusive, and sustainable economic growth, full and productive employment, and decent work for all.	Offering fair wages, safe working conditions, and fostering innovation, productivity, and entrepreneurship.
9. Industry, Innovation & Infrastructure	Build resilient infrastructure, promote inclusive and sustainable industrialization, and foster innovation.	Investing in sustainable R&D, green technologies, and resilient supply chain infrastructure.
10. Reduced Inequality	Reduce inequality within and among countries.	Promoting diversity and inclusion, ensuring equitable pay structures, and developing inclusive business models.
11. Sustainable Cities & Communities	Make cities and human settlements inclusive, safe, resilient, and sustainable.	Developing sustainable products and services, supporting urban sustainability initiatives, and applying green building standards.
12. Responsible Consumption & Production	Ensure sustainable consumption and production patterns.	Adopting circular economy models, reducing waste, and promoting responsible resource use throughout the value chain.
13. Climate Action	Take urgent action to combat climate change and its impacts.	Measuring and reducing carbon footprint, setting science-based emissions targets, and enhancing climate resilience.
14. Life Below Water	Conserve and sustainably use the oceans, seas, and marine resources.	Reducing marine pollution, supporting sustainable fisheries, and ensuring responsible use of marine resources.
15. Life on Land	Protect, restore, and promote sustainable use of terrestrial ecosystems.	Promoting sustainable land use, combating deforestation, and protecting biodiversity in operations and sourcing.
16. Peace, Justice & Strong Institutions	Promote peaceful and inclusive societies, provide access to justice for all, and build effective institutions.	Upholding anti-corruption practices, ethical governance, transparency, and respect for human rights.

SDG & Name	Core Objective	Organizational Significance & Business Applications
17. Partnerships for the Goals	Strengthen the means of implementation and revitalize the global partnership for sustainable development.	Engaging in cross-sector collaborations, multi-stakeholder partnerships, and sharing knowledge and resources.

The SDGs present a robust global agenda, but their realization requires actionable frameworks that relate these macro aspirations to firm-level strategy. This is the role of ESG criteria: they provide the vital operational bridge (Global Reporting Initiative & UN Global Compact, 2019). We will now assess the relationship between these frameworks, demonstrating how ESG provides measurable criteria at the firm level to contribute to SDGs and report on them (Kotsantonis & Serafeim, 2019).

2.4. The Relationship between ESGs and SDGs

The United Nations Sustainable Development Goals (SDGs) and the Environmental, Social, and Governance (ESG) framework function as complementary pillars of contemporary corporate sustainability. The SDGs present a universal agenda of 17 ambitious goals to address critical global challenges like poverty, inequality, and climate change (United Nations, 2015). In contrast, the ESG framework provides a distinct set of criteria for evaluating corporate performance across environmental stewardship, social responsibility, and governance quality. This positions ESG as the critical mechanism for translating the SDGs' macro-level ambitions into actionable, firm-level strategy, thereby bridging global aspiration with corporate accountability. The strategic convergence of these frameworks is increasingly imperative, as stakeholders recognize that achieving SDG-prescribed outcomes depends on effectively managing ESG-related risks and opportunities through robust governance (Radu et al., 2023; Palau-Pinyana et al., 2023). However, a significant implementation gap persists. While the SDGs represent a necessary global vision, their translation into measurable corporate action remains complex (Gonçalves et al., 2025). ESG serves as the essential operational bridge, providing the structured disclosure standards and performance indicators needed to convert abstract SDG targets into concrete, quantifiable business activities.

This alignment is made concrete through the three ESG pillars, which provide a practical corporate structure that maps directly onto the SDGs, as illustrated in the table below. The table maps core ESG dimensions to specific SDG domains and their corresponding operational indicators.

Table 2.5: Integration of ESG Pillars with Sustainable Development Goals: Operational Framework and Empirical Support

ESG Pillar	SDG Areas Addressed	Operational Indicators	Empirical Support
Environmental	Climate Action (SDG 13), Clean Water (SDG 6), Responsible Consumption (SDG 12)	GHG Emissions, Energy Consumption, Waste Management	Industry case studies (Radu et al., 2023); Food sector linkages (Sandberg et al., 2022)
Social	Decent Work (SDG 8), Reduced Inequality (SDG 10), Community Engagement (SDG 11)	Labor Rights, Diversity Metrics, Community Investments	SME prioritization frameworks (Tsang et al., 2023)
Governance	Peace, Justice (SDG 16), Gender Equality (SDG 5)	Board Diversity, Anti-Corruption Measures, Transparency	Systematic review of implementation enablers (Palau-Pinyana et al., 2023)

This alignment enables organizations to effect meaningful change; an organization's environmental metrics on emissions reflect its efforts to support SDG 13, while its social metrics on diversity relate to SDGs 8 and 10. If these ESG metrics are integrated into corporate business strategy or reporting, organizations can holistically rank ESG initiatives, making it easier and more credible to demonstrate their contributions. This can be made easier with board oversight and integrated reporting, which increase the ability to identify materiality and report non-financial performance (Adams, 2017), as evidenced in several industries, such as oil and gas and banking (Radu et al., 2023; Cucari et al., 2017). It is through integrated reporting that the ESG and SDG link is operationalized, enabling firms to manage the interconnectedness of sustainability risks and corporate strategy. Overall, transparent disclosure of ESG information enhances stakeholder trust by explicitly demonstrating a corporation's contributions to a specific issue, reduces information gaps for stakeholders, and increases organizational credibility (Arvidsson & Dumay, 2021).

This is not just a reporting exercise; integrating ESG contributes to shared value creation by aligning corporate and social purposes in ways that break cycles of poverty, foster equitable

development, and increase environmental protection — building resilience in small increments (Taliento et al., 2019). Advancing from commitment to measurable outcomes, however, demands continuous improvement in data quality, benchmarking, and metric harmonization—a persistent challenge in both research and practice (Palau-Pinyana et al., 2023).

This correspondence has been empirically proven in various areas. One can refer to Romanian oil and gas companies, where, through sustainability reports, the management of emissions and community welfare initiatives are connected to the environmental and social SDGs (Radu et al., 2023). Correlations have been observed between the high performance of the European food sector in ESG and financial sustainability, as well as in operational resilience (Sandberg et al., 2022). There is evidence in the Italian banking industry that suggests enhanced sustainability performance is attributable to good governance, board diversity, and CSR committees (Cucari et al., 2017). The same has been observed among impact technology startups that address global issues through innovation and an ESG-SDG approach (Gidron et al., 2021).

ESG performance establishes a strategic framework that yields tangible benefits when companies integrate ESG into their corporate policies and operations. Companies that follow ESG principles tend to deliver greater innovation, efficiency, and competitiveness, while being better equipped to address environmental and social challenges, thereby creating a sustainable advantage (Bhandari et al., 2022). The established link between strong ESG disclosure and financial performance indicates that ESG is a pathway for generating economic returns while meeting SDG ambitions (Alsayegh et al., 2020). Furthermore, stakeholder behavior reflects a similar commitment to ESG, as evidenced by institutional investors' increasing focus on ESG standards. This focus highlights that ESG is a crucial criterion for evaluating a corporation's long-term sustainability, fostering more effective communication and disclosure among companies (Park & Jang, 2021).

However, deep methodological inconsistencies among ESG rating agencies render it difficult to form an accurate assessment of corporate alignment with the SDGs and make informed investment decisions. They could even cause investments to shift away from potentially impactful projects (Berg et al., 2022). This clearly highlights the need for systematic assessment frameworks. Several key theories have identified the driving force behind ESG-SDG incorporation. Stakeholder Theory demonstrates how ESG actions serve societal expectations by creating shared value through SDG-oriented activities that enhance both organizational and community welfare (Taliento et al., 2019).

The Resource-Based View (RBV) is extended to include ESG factors that can be considered distinct organizational strategic assets, with environmental efficiency and social capital established as sources of sustainable competitive advantage (Bhandari et al., 2022). Corporations that do not account for these aspects are inherently at risk of obsolescence in today's markets (Ortiz-de-Mandojana & Bansal, 2015). Substantial evidence suggests that superior ESG performers consistently outperform their peers (Khan et al., 2016). Institutional Theory suggests that ESG adoption can be primarily driven by the legitimacy requirements, as organizations seek to comply with regulatory and societal expectations to gain approval and mitigate operational ambiguity (Adams, 2017).

As a result, ESG disclosures serve as instruments of legitimacy and pursue legitimate, strategic purposes that influence the image of investors and stakeholders (Christensen et al., 2021), and enhance the accessibility of market entry and reputation value through demonstrated affirmation of the SDGs (Escrig-Olmedo et al., 2019). Globally, governments and regulators have introduced a range of required ESG disclosures in practice that align with the principles of the SDGs. The reporting directives of the European Union exemplify this phenomenon by requiring organizations to engage in transparent sustainability messaging and encouraging the use of indicators (Camilleri, 2015). Strong enforcement mechanisms are considered a crucial component in safeguarding the quality and credibility of ESG reporting (OECD, 2023; Christensen et al., 2021).

For Small and Medium-sized Enterprises (SMEs), however, this otherwise clear roadmap reveals a fundamental disconnect, exposing the Relational-Performance Gap in practice. Small and medium-sized enterprises face distinct challenges in adopting ESG practices due to limited resources, expertise, and a lack of robust data systems (Tsang et al., 2023). Inconsistent measurement methods and unclear regulations hinder their ability to articulate sustainability achievements and attract responsible investment (Hung & Chen, 2023; OECD, 2021).

Nevertheless, SMEs may also play a significant role, with an emphasis on material ESG, and with the help of a simplified and scalable structure (Hung and Chen, 2023). Specifically tailored instruments, studies, and methodical approaches, such as the Bayesian best-worst sorting method, may help determine some of the main priority areas, including labour (Tsang et al., 2023). Data collection can be made easier through technology integrations. In particular, Industry 4.0 tools can be used to develop plans and strategies, and cooperation facilitates their creation, making the

process easier and more efficient (Palau-Pinyana et al., 2023). Lastly, the government's policies play a critical role in ensuring that interactions with SMEs can be made easier, as it may minimize engagement obstacles and encourage participation.

The programs of capacity-building and technical assistance are required to provide SMEs with the necessary means to take the right ESG actions (OECD, 2021). Collaborations between states and the business sector, along with enhanced access to sustainable financing, enable smaller businesses to make significant contributions to the SDGs without incurring onerous resource costs (Palau-Pinyana et al., 2023). This coping strategy demonstrates that sustainability in the case of SMEs does not always involve applying new, full-scale frameworks, but rather organically enhancing existing practices through the systematic amplification of these practices. It is not a gap of purpose, but a purposely created gap.

In summary, ESG frameworks are fundamental for translating the global SDGs agenda into implementable corporate strategies, strengthening both competitive resilience and accountability. Future progress depends on bridging substantial research gaps, particularly in standardizing ESG measurement and establishing demonstrable causal links between corporate initiatives and SDG outcomes. Future progress hinges on bridging these research gaps, particularly through the harmonization of assessment criteria and by leveraging emerging technologies like AI and sophisticated data analytics to transform ESG-SDG monitoring and governance (Palau-Pinyana et al., 2023; Venturelli et al., 2022; Gidron et al., 2021)

2.5. Sustainability Reporting Tools from ESG to SDG

Sustainability reporting tools are mechanisms, standards, and platforms that enable organizations to measure, disclose, and translate their Environmental, Social, and Governance (ESG) metrics into measurable indicators. The primary objective is to align corporate strategy with the United Nations Sustainable Development Goals (SDGs) by translating global objectives into an actionable plan. Transparent and clear disclosures, demonstrating contributions to sustainable development and enhancing accountability (Siew, 2015; Tanwar, 2023; Eco Active Tech, 2024; PwC, 2024). However, despite their intent to bridge corporate ESG performance with the transformative dimensions of the SDGs, these tools are often limited by an inherent misalignment of intent, methods, and scale.

Sustainability reporting is also an essential part of an organization's responsibility, turning ESG requirements into targeted reports to stakeholders. This collaboration is reciprocal by nature: ESG determines the primary standards of responsibility, and sustainability reporting serves as the official tool to demonstrate this responsibility in performance to investors, regulatory systems, and society. In the process, organizations transform environmental measures, such as carbon emissions and water consumption, social issues, including labor relations and stakeholder participation, and governance measures, including ethical leadership, into usable reporting. This framework enables companies to transform high-level sustainability commitments into accountable reporting practices, evidenced by the inclusion of greenhouse gas inventories (E), living wage evaluations (S), and whistleblower protections (G) in corporate disclosures (Rockström et al., 2023). Consequently, sustainability reporting transcends mere compliance to become a vital instrument for building stakeholder trust, communicating responsibility, and converting sustainability commitments into long-term value creation.

Reporting serves two essential purposes: first, it helps prevent the reputational risks associated with greenwashing. Second, it offers a valid and reliable method for achieving greater operational efficiencies and market opportunities. This is particularly relevant as carbon-neutral claims are true only 59 percent of the time (The Penn Law Review, 2023). However, businesses that genuinely care about sustainability will reap significant benefits. For example, Unilever's Sustainable Living Plan highlights how Unilever's sustainable brands are performing better than its non-sustainable brands. Sustainable brands consume 47% less water per ton produced (Unilever, 2020). Given the need for standardized frameworks, the Global Reporting Initiative (GRI) provides a suitable foundation for reporting, offering comparability across sectors and the possibility of third-party verification (GRI, 2021). In the long run, the standardization of frameworks promotes a brand of stakeholder capitalism that is compatible with the concept of intergenerational equity introduced in the Brundtland Commission Report (1987), which embeds accountability as a corporate practice rather than an afterthought.

Multinational corporations (MNCs) navigate a complex, fragmented regulatory landscape for sustainability reporting, which complicates the accurate capture of their global impacts. A primary challenge is complying with diverse requirements, such as the European Union’s Corporate Sustainability Reporting Directive (CSRD), which mandates a double materiality disclosure. This requires reporting on how sustainability issues affect the company’s finances (financial

materiality) and how the company's operations affect society and the environment (impact materiality). Meanwhile, other jurisdictions still rely on voluntary or developing reporting mechanisms (Thomson Reuters, 2025; European Commission, 2023). This global regulatory patchwork significantly increases compliance burdens and obstructs data harmonization.

The consequences of this fragmentation are both quantifiable and significant. Berg et al. (2022) demonstrate that methodological differences can cause a single firm to be ranked in the top decile by one agency and the bottom quintile by another, rendering such rankings potentially meaningless. These regulatory demands also create significant internal resource pressures. For instance, when Directive 2014/95/EU required the Italian multi-utility company Estra to report on previously neglected qualitative data, such as anti-corruption protocols, it incurred substantially higher coordination costs even with external auditing support (De Micco et al., 2021). Furthermore, stakeholder engagement, essential for credible materiality assessments, often remains structurally unstructured. Estra's managers acknowledged their own informal procedures created information asymmetries, ultimately undermining the report's effectiveness in addressing community concerns (Manetti, 2011; De Micco et al., 2021).

The challenges for Small and Medium-sized Enterprises (SMEs) are distinct, as conventional reporting approaches are often misaligned with their resource constraints and institutional realities. Severe financial limitations typically prevent investments in certifications, data systems, or dedicated staff, with high costs and knowledge gaps cited as primary barriers (Sánchez-Medina et al., 2020). This, in turn, amplifies the existing measurement gap, motivating SMEs to focus on compliance rather than purposefully aligning their activities with their chosen ESG or SDG targets (Fasan et al., 2023). This dilemma arises because no standardized, cost-effective tools are available to enable accountability. Regulatory pressures can exacerbate these problems; for instance, the CSRD's €40 million turnover threshold has compelled many mid-sized SMEs to adopt superficial compliance measures without the necessary infrastructure, thereby diverting their focus from substantive sustainability integration (European Commission, 2023). This reporting and measurement challenge for SMEs sets the stage for the next chapter, which explores how digital transformation can, if guided by leaderful practices, provide a technological bridge over this gap.

A significant knowledge disparity further complicates SME reporting, where actions are often driven by immediate, tactical decisions rather than a strategic ESG framework. As D'Angio et al.

(2024) note, SME reporting tends to be habitual or impulsive—such as adopting energy-efficient equipment—without linking these operational choices to broader sustainability objectives. This is the core symptom of the Relational-Performance Gap. While SMEs frequently achieve substantive sustainability through organic, relational networks, they cannot translate these accomplishments into the formal language of ESG and SDG reporting. The problem lies not in their performance, but in the disconnect between their relational reality and standardized reporting requirements.

The repercussions of this disconnect are both operational and strategic. For instance, an environmental analysis of Piedmont wineries found that producing a single 0.75L bottle consumed 881 liters of water, highlighting a critical area for improvement (Orlandella et al., 2025). Even if a winery operates organically, the absence of a formal water management system increases operational costs and impedes progress toward SDG 6 (Clean Water) and SDG 12 (Responsible Consumption). Context-sensitive innovations offer a viable path forward. Ghanaian cocoa cooperatives, for example, use community data trusts to certify biochar—a product that sequesters carbon and enhances soil health. Grounded in polycentric governance (Ostrom, 2010), this approach converts local knowledge into verifiable impact data, thereby bypassing the high costs associated with mainstream certification (Wahyuni & Lestari, 2022).

These disparities highlight a critical challenge in contemporary corporate governance: the fragile linkage between sustainability reporting, ESG performance, and the Sustainable Development Goals (SDGs). Sustainability reporting is the essential mechanism intended to connect corporate ESG activities with the global SDG agenda; however, its effectiveness is severely compromised by fragmented approaches, a lack of cohesion, and a critical deficiency in unified measurement standards (Roy, 2024). While international pressure mounts for responsible capital allocation and harmonized indicators, the persistence of inconsistent metrics and frameworks fundamentally undermines the consistency of ESG reporting and the successful implementation of the SDGs (Roy, 2024).

Progress is nascent. Initiatives like the International Sustainability Standards Board (ISSB) and the consolidation of SASB signify a positive move toward a common global reporting language (IFRS, 2024). However, this remains a work in progress. In practice, a mere 29% of organizations successfully fulfill their commitments to link ESG and SDG strategies (Lukacs et al., 2025). A fundamental misalignment in objectives exacerbates this gap: ESG is often driven by a market-

risk mindset, while the SDGs aim for transformative societal change. Addressing this disconnect requires bespoke solutions. For multinational corporations, the path forward involves relational governance models that grant operational autonomy in sustainability decisions, informed by internal knowledge from frontline employees.

Leadership plays a crucial role in implementing SDG-aligned strategies, although its manifestation differs significantly across organizational contexts. Multinational corporations (MNCs) typically employ top-down approaches, formally linking executive compensation, strategic planning, and operational KPIs to sustainability objectives (Ioannou & Serafeim, 2017; Friede et al., 2015). In contrast, small and medium-sized enterprises (SMEs) rely on relational leadership, where partnerships, stakeholder engagement, and innovative methods enable them to make meaningful contributions to global goals (Kuenkel, 2019). The regulatory context further differentiates these paths. While developed economies progress toward standardized SDG and ESG reporting, SMEs in developing economies operate within fragmented, often rule-of-law-deficient environments (Imran et al., 2025). For these firms, supportive domestic policies, cross-sector knowledge sharing, and collaborative frameworks are crucial to ensure fair treatment and prevent them from being overwhelmed by complex reporting procedures.

Ultimately, the persistent challenges in sustainability reporting—particularly for SMEs—demonstrate that tools and frameworks alone are insufficient. Successfully operationalizing ESG and the SDGs, and crucially closing the Relational-Performance Gap, necessitates a fundamental shift in management philosophy. This imperative leads directly to the central role of Relational Leadership and Leaderful Practice as the enabling forces for genuine integration.

2.6. The Role of Relational Leadership and Leaderful Practice in Achieving Sustainable Performance

The persistent challenges in sustainability reporting—particularly for SMEs—demonstrate that tools and frameworks alone are insufficient. Successfully operationalizing ESG and the SDGs, and crucially closing the Relational-Performance Gap, necessitates a fundamental shift in management philosophy. Sustainable performance is the organizational ability to create long-term value by balancing social equity, environmental protection, and economic growth. It involves incorporating sustainability objectives into operations, strategy, and performance accounting, ensuring that organizations succeed in ways that benefit society and the environment without jeopardizing long-

term financial success (Lozano, 2008; Eccles, Ioannou, & Serafeim, 2014). To achieve this, the organization needs to shift from its traditional hierarchical approach to a more relational, leaderful approach.

Relational Leadership theorizes leadership as a social process emerging from interactions and mutual influence (Uhl-Bien, 2006). Leaderful Practice (LAP) is the practical, prescriptive framework for enacting this theory, characterized by collective engagement and the distribution of authority through the Four Cs (Raelin, 2011). Leaderful practice operates through collaborative decision-making and by promoting ordinary people to lead in areas where they have expertise, while establishing an environment in which multiple voices direct the organization (Raelin, 2003; Fletcher, 2004).

This change indicates a shift from dependence on individual leaders to a socially constructed process cultivated through dialogue and relational action. This is defined by Uhl-Bien (2006, p. 655) as a two-way, complex process in which the meaning and purpose of leadership are co-created through the social process of mutual, ongoing dialogue between leaders and followers. It is essential to create a space where the purposeful interdependence related to sustainability can be pursued and to go beyond unidirectional authority, to counter the extreme individualization that the movements towards sustainability are so severely criticized for. This understanding of the perspective holds that sustainable results will not be achieved through top-down approaches, but rather through a combination of numerous, joint commitments. This is central to the quest to address so-called wicked problems, such as climate adaptation or ethical supply chains, which do not lend themselves to simple top-down solutions (Scharmer, 2009).

Leaderful practice" (Raelin, 2011) consists of four central ideas: concurrency, collaboration, compassion, and collective action. Concurrency "acknowledges that multiple people can lead at the same time (Raelin, 2011), redistributing authority so that people can act in response to situations, rather than waiting for an executive directive. Collaboration involves working together on problems defined by the community, where everyone brings their expertise and perspectives to the decision-making process, independent of formal status. Compassion implies a sincere, ethical interest in others' well-being and in enhancing a sense of value and belonging. Collective action involves addressing problems through collective will and effort, rather than relying on a single person's solution for everyone. Ultimately, these principles are not new; they are often already

present in an organization's informal structures and relational networks, where they can spontaneously generate and sustain outcomes, even without explicit disclosure.

Patagonia is an example of an organization that implements these principles in practice. The company's sustainability task force exemplifies a multi-functional approach, as employees from various departments collaborate on sustainability projects from diverse perspectives. The task force facilitates collaboration and agility across groups, as it is not just about identifying and following top leaders, but also about making decisions together and gathering input from the organization's various levels. This does not mean simply entrusting power; it creates a sense of ownership in terms of their participation in the outcome while enhancing shared accountability. In turn, by allocating power in this way, organizations like Patagonia create the capacity for change to respond to the often-complex ethical dilemmas embedded in sustainability.

This Leaderful approach enables new technologies and practices to be adopted organically at all levels of the organization, often without relying on top-down executive decisions. A good example of this is the Patagonia Worn Wear program, which helps extend the life of products by repairing and reselling used items (Bürklin, 2019). This example illustrates how leadership can be distributed throughout the organization, with all levels adopting, advocating, and supporting the company's sustainable practices. This approach is essential for small- and medium-sized enterprises (SMEs), where collective intelligence is their most valuable resource. For example, in the textile industry, nearly 25% of Italian SMEs reported a 40% reduction in water use after establishing worker-led efficiency teams (Martinez-Pelaez et al., 2024). This example demonstrates how effective leadership practices can foster organizational success by empowering frontline employees to leverage their unique experiences and knowledge to achieve sustainable goals that benefit the organization. However, due to a top-down reliance on centralized decision-making structures, these goals have often been abandoned.

These practical outcomes are backed by broader evidence linking relational leadership to sustainable performance. Spreitzer and Cameron (2012) draw an unmistakable connection between relational leadership and high-performance work systems, citing that sustainable organizational performance thrives in an atmosphere of shared and collaborative leadership. From this relational approach, both employees and stakeholders are empowered and engaged, resulting in improved sustainability outcomes and a stronger sense of shared stewardship. Therefore, stakeholder

relationships evolve from transactions to a relational network. Organizations can mobilize sustainability initiatives by incorporating the voices of supply chain partners and communities, ultimately making shared decision-making part of efficient operational and social impact.

Although relational leadership outlines the necessary human framework for the solution, its use is accentuated by advanced technologies that provide new capabilities for transparency and measurement. The use of Internet Things (IoT) sensors has become commonplace, providing platforms that enable organizations to monitor Environmental, Social, and Governance (ESG) characteristics across their supply chains in real time, thereby giving stakeholders unprecedented visibility and detail for sustainability analytics (Gubbi et al., 2013). SMEs also use blockchain, AI, and IoT to measure outcomes and confirm impact; however, unequal access to technology may exacerbate existing inequalities relative to larger firms (Asbeetah et al., 2025; Cui, 2023; He & Chen, 2024).

Nonetheless, this technology has its own sustainability trade-offs as the growth of devices, such as emissions-tracking sensors, raises levels of electronic waste (e-waste) through its own precept of sustainability, creating a case where monitoring tools can move away from the key aspect of sustainability found in SDG 12, which is responsible consumption and production (Islam et al., 2021). This complex interdependence between relational leadership, digital tools, and sustainable outcomes—particularly within the resource-constrained context of SMEs—represents the critical, underexplored intersection at the heart of this research. It presents a paradox and captures the broader thesis of this work: technology alone is insufficient. Anthonysamy, L. A./P., Siddika, A., & Aqlily, N. R. (2025). Raelin (2016) argues that sustainability is ultimately "communicatively constituted" by ongoing conversations with stakeholders. This tenet was seemingly illustrated by Siemens' decision to divest from coal investments, which was informed by extensive discussions with climate NGOs. It was driven by the notion of relational leadership, which enabled critical discussions and a relational, evidence-based redefinition of priorities. In the following chapter, I will examine the complex interconnection of these technological tools and the significantly flawed social practice of leadership.

A key facilitator of relational leadership is nurturing psychological safety. Edmondson (2012) points out that organizations in which employees feel safe to express ideas and concerns without fear of punishment are fundamental to innovation and collaboration sufficient to meet complex

sustainability challenges. Companies like Patagonia provide material evidence of this practice. For Patagonia, open, non-hierarchical conversations are fundamental to its sustainability practices.

This practice aligns with a broader movement away from compliance toward constitutive ethics. Weinberg (1996) positions "ordinary" as a sociocratic tenet in a relational context, rather than simply engaging procedural or ethical processes to meet basic rule-following standards. Similarly, Pesqueux (2018) posits that in relational leadership, ethical oversight is a constitutive, active endeavor rather than a compliance-based exercise. The Mondragón Corporation is a clear example of this shift, institutionalizing and affirming values (e.g., compassion) as part of its cooperative leadership framework, rather than simply professing them. A high degree of ethical embedding aligns closely with performance; Ortiz-de-Urbina-Criado & López-Cabarcos (2020) demonstrated a stronger relationship between ESG and human capital in settings that prioritize human development over purely monetary growth.

Additionally, the contribution of Top Management Teams (TMTs) is crucial to the transition. Wassmer et al. (2021) suggest that TMTs with broader professional qualifications and capabilities, especially those beyond traditional business practices, will achieve higher sustainability performance. Diversely skilled teams are better equipped to create cohesive strategies that generate social and environmental spillover effects, thereby helping to bridge the gap between intention and action.

One of the best examples of relational leadership is evident in crises. Above all, a study by Lehtonen et al. (2022) of Finnish firms during the COVID-19 pandemic found that distributed resilience leadership—operating through organizational and cross-level networks of employees—led to rapid reorganization of medical supply chains while protecting employees' wages. The authors demonstrate how decentralized, collective leadership yields positive outcomes in extreme crisis conditions. The study's discussions further articulate the enabling ecosystem of leadership described by Kuenkel (2019), in which leadership circulates readily and dynamically in response to expertise and situational requirements, facilitated by collaboration among multiple stakeholders, enabling organizations to be highly adaptive in the face of severe public threats.

The human focus of this model poses an essential counterbalance to contemporary practices that are increasingly dependent on digital means. While technology can provide tremendous benefits through its ability to scale up and achieve efficiencies, it can also promote superficial, transactional

relationships that would never be sustainable in genuine leader-follower dynamics. Similarly, global value chains can facilitate efficiency, even while disenfranchising stakeholders or ignoring local settings or contexts. All of these points highlight a visceral tension between technology-mediated interaction and human-based interaction, which constitutes a central variability in contemporary leadership models. Ultimately, relational leadership is essential for navigating the complexities of integrating ESG with the SDGs.

This type of leadership is crucial for addressing the inherent tensions between corporate performance and global sustainability goals (Kuenkel, 2019). It is worth noting that Relational Leadership and Leaderful Practice (LAP) have not been utilized as an integrated framework in the sustainability literature. Previous studies have occasionally considered isolated elements of relational leadership, such as compassion or collaboration; however, none have integrated these into a specific leadership style for achieving sustainable performance. Companies like Ørsted and Interface demonstrate that this type of leadership can drive transformative action. Ørsted transitioned from fossil fuels to renewables, and Interface shifted from a traditional production model to a circular economy in an industry driven by a linear model—both demonstrating that relational processes can be at the center of identifying strategic opportunities. Importantly, both companies reframed compliance with the SDGs from a regulatory obligation to a competitive advantage, centered on inventive ways aligned with both the SDGs and corporate objectives (Lukács et al., 2025). Their stories illustrate that leadership that facilitates the co-creation with stakeholders and is underpinned by an ethical base is required for authentic ESG-SDG alignment.

This alignment is being influenced by regulations, particularly the Corporate Sustainability Reporting Directive (CSRD) of the European Union, which mandates the reporting of both non-financial and financial performance, thereby establishing essential links between ESG indicators and SDG results (Imran et al., 2025). Concurrently, such regulatory clarity is not global. The motivation to compromise on profit and sustainability can be eroded by less stringent regulations in most developing economies. Hence, there is a need for regulatory frameworks that can help both MNCs and SMEs promote the SDGs.

The entire process is presented as a promising yet balanced opportunity in the digital technology revolution. The Internet of Things (IoT), blockchain, and AI can become more effective in improving the visibility and competence of data, and in increasing the efficiencies of reporting-

i.e., tracing sustainable supply chains and real-time ESG measurements. Nonetheless, the emergence of such technologies poses special ethical challenges, including data safety and privacy, excessive energy use, and disparities in access, which exacerbate the gap between the scales of companies.

For example, a 2023 scandal involving an AI-based ESG reporting platform highlighted the need for immediate ethical action to ensure the integrity of ESG reporting (He & Chen, 2024). In addition, the implementation of these tools can be limited by cost or capacity constraints for SMEs, further dividing corporate size. The potential of technology and the real challenges will be the primary motivation for the next chapter on Digital Transformation. Therefore, while regulation sets the stage and technology provides the tools, it is Relational Leadership and Leaderful Practice that activate the human system necessary to achieve genuine, integrated, sustainable performance.

2.7. Conclusion of the chapter

This chapter argues that for Small and Medium-sized Enterprises (SMEs) to achieve sustainable performance, they must undergo a fundamental transformation from conventional, hierarchical leadership to collaborative and distributed models of Relational Leadership and Leaderful practice. The evidence shows that these two leadership approaches represent the fundamental bridge to close the Relational Performance Gap-the significant gulf between an organization’s internal organic, relational strengths and the organization's ability to turn those organic strengths into measurable ESG and SDG impacts or business performance outcomes. The outcomes of this study can be summarized in a potent metaphor that guides the path to sustainable performance.

The 'Relational-Performance Gap' signifies the chasm between organic collaboration and formal ESG and SDG outcomes. Relational Leadership Theory (RLT) provides the fundamental diagnosis of the gap, while Leadership-as-Practice (LAP) serves as the pathway across it. The Four Cs are the fundamental components of the pathway, providing the structural integrity to convert relational capacity into measurable sustainability performance. This model serves as the blueprint for operationalizing the steps needed to close the gap and deliver a substantial, reportable impact. The pathway from leadership to impact is articulated through the following integrated framework, which models the dynamic interaction of these core elements.

Figure 2.2: Relational Model

- **[RELATIONAL LEADERSHIP]**

👥 Connecting **Communities → 🌍 Planetary Boundaries**

- **[LEADERFUL PRACTICE]**

Concurrency | Collective | Collaboration| Compassion

- **[DIGITAL ENABLERS]**

Blockchain | AI Analytics | IoT Monitoring

- **[REGENERATIVE OUTCOMES]**

Resilience (People) + Regeneration (Planet) + Returns (Profit)

- **[FEEDBACK LOOP]**

- Foster adaptive learning: performance data continuously informs and improves relational strategies.

It does so through a distinctive architecture for closing what has been described as the Relational-Performance Gap: Collectiveness assures the joint ownership of sustainability objectives; Concurrency allows for rapid, real-time responsiveness to complex issues; Collaboration leverages multiple stakeholders' knowledge and perspective into innovative, coherent solutions; and Compassion provides the societal and ethical core of care that guarantees equitable and inclusive practices throughout this process. Examples such as Patagonia's decentralized task forces, worker-led efficiency teams across Italian SMEs, and the transformational journeys of Ørsted and Interface all demonstrate the potential for relational models to provide real competitive advantage while simultaneously fostering resilience. These examples open up opportunities for organizations to reframe sustainability from a compliance burden into a strategic mechanism for value creation.

This framework also fills a significant theoretical gap in the literature, where concepts such as compassion and collaboration have been studied in isolation rather than integrated and conceptualized within a unified framework for sustainable leadership. While regulatory frameworks, such as the CSRD, may create the necessary connections between ESG metrics and SDG targets, and digital tools provide the required capacity to track them, it is the human, rich-dialogue methodology of Relational Leadership and Leaderful Practice that enlivens these efforts. It is the human mechanism that ensures compassion, trust, and interaction are truly embedded, leading to deeply rooted, enduring sustainability.

CHAPTER 3
DIGITAL TRANSFORMATION AND TECHNOLOGIES

3.1. Introduction of the Chapter

Digital transformation constitutes a fundamental organizational shift that extends far beyond mere digitization, spanning products, services, culture, and whole business models (Mergel, Edelmann, & Haug, 2019). Digital transformation can be illustrated by George Westerman of MIT Sloan, who notes, "When digital transformation is done right, it is like a caterpillar turning into a butterfly, but when it is not done right, all you have is a really fast caterpillar" (Westerman, 2018). This metaphor powerfully captures the distinction between true transformation and mere automation. For SMEs, this means digital tools can either help them formalize and scale their innate relational strengths into verifiable performance (the butterfly) or speed up inefficient, siloed processes, leaving them with a very fast caterpillar stuck in its old form.

Digital transformation has emerged as a critical pathway to sustainable performance, enabling firms to enhance their economic, environmental, and social impact by fundamentally rethinking the ‘when’, ‘how’, and ‘what’ of their activities. Scholars argue that a firm’s digital capabilities and the strategic alignment between digital initiatives and the delivery of sustainability targets are pivotal factors that enable organizations to leverage digital transformation to achieve sustainable organizational performance (Lu et al., 2023; Wu & Chen, 2024).

Having established in Chapter 2 that Leaderful Practice (LAP) is the prescriptive architecture for bridging the Relational-Performance Gap, this chapter identifies digital transformation as the critical *test case and operational engine* for this model. It investigates whether these powerful technologies will widen the Relational-Performance Gap—the disconnect between SMEs' organic relational strengths and their formal ESG outcomes—or provide the scaffolding to bridge it. Consequently, the interrelation between digital transformation (DT) and ESG goals is fundamentally reshaping how value is produced and contributing to achieving the SDGs. This interrelation, often termed the ‘twin transformation’ by the European Commission, involves applying both digital and green transitions for increased competitiveness and sustainability (2022).

However, digital transformation also presents enormous possibilities and significant contradictions—an intriguing intersection that did not previously exist. Digital tools, for example, have an exponentially greater efficiency. For instance, Siemens' IoT-based predictive maintenance uses 18% less energy intensity (Siemens, 2023). Microsoft utilizes AI and cloud technology to help businesses track and reduce their emissions (Microsoft, 2023). Patagonia is proud of the traceability of the materials it sources and its supply chain mapping, which offer transparency (Patagonia). Technologies like blockchain provide a verifiable record of sustainable practices, fundamentally shifting communication from a trust-based issue to one of verifiable facts. At the same time, a variety of online systems and devices use raw materials, such as Congolese cobalt, which is linked to human rights violations, labor exploitation, and environmental contamination (Sovacool, 2021).

This creates a profound contradiction: solutions designed to bolster sustainability and accountability raise ethical and environmental concerns related to the increased demand for materials. This demonstrates Geels' (2010) socio-technical model of the dilemma a problem central to critiques of 'green colonialism (Hickel, 2020), which suggests that technology can also reproduce past injustices elsewhere. Ongoing failures of algorithmic discrimination and exclusion of informal economies in M-Pesa (Fazal & Dzingirai, 2024) and inconsistent data issues surrounding technology-based systems, such as the EU CSRD, signify that technology is not a solution.

Therefore, this chapter posits a stark choice. This chapter posits that digital transformation presents a stark choice: it will either exacerbate the Relational-Performance Gap by automating and cementing prior hierarchies, or it will bridge it by operationalizing the Four Cs of Leaderful Practice. The paradox of digital transformation is not at the level of technology; rather, it is the level of leadership. This shift in thinking is not open to negotiation; to achieve a successful transformation, it demands an equal change in leadership models toward a higher, more interconnected, and relational model that promotes connectedness and flattens hierarchies (Hinchcliffe, 2017; Nachira et al., 2006).

Leadership-as-Practice (LAP) and its Four Cs offer a prescriptive framework and the essential architecture for tapping into digital transformation to deliver equitable, regenerative, and measurable sustainable performance outcomes. The following sections will first outline the target

array of digital tools for sustainability (Section 3.2) with a specific focus on tools for digital communication and sustainability reporting, discuss the dual paradox that such tools present (Section 3.3), and finally illustrate how Leaderful Practice actualizes these tools and closes the Relational-Performance Gap (Section 3.4).

3.2. Digital Transformation in the Context of Sustainable

Digital transformation (DT) represents a vital process of using digital technology to change the way we do things, our processes, and our business models to create new value and competitive advantage (Fitzgerald et al., 2014). DT is more than just a new technology; it is being seen as a strategic enabler of sustainable corporate performance – that is, achieving business success while meeting broader Environmental, Social and Governance (ESG) priorities. The strategic aspect aligns with the European Commission's 'twin-transition' framework, which openly recognizes that digital and green transitions are increasingly interrelated priorities for future competitive advantage (European Commission, 2020). Academic research has begun to explore this link as well, showing that digital transformation may enhance sustainability by developing new models for resource efficiency and circularity (George et al., 2021). This potential is realized or optimized when the organization is willing to invest in aligning its digital capacities and technical capabilities with its sustainability agenda. This presumption of organizational complexity goes beyond IT implementation (Feroz et al., 2021).

The interplay of digital technology and sustainability spans the entire value chain, as digital technology offers the unique ability to create unprecedented data visibility and, ultimately, better operational efficiency. For example, manufacturers are using Internet of Things (IoT), Big Data Analytics, and Artificial Intelligence (AI) to expand monitoring carbon emissions and consumption of resources in real-time, allowing direct action to improve eco-efficiency, reduce waste, and improve Environmental Performance (EP) in relation to SDG 12 (Responsible Consumption) and SDG 13 (Climate Action)(Ma, Zhang, & Dong, 2023; Asbeetah et al, 2025).

Simultaneously, digital capabilities are revolutionizing sustainability reporting by enhancing the quality, comparability, and reliability of disclosures. Tools such as Sustainable Enterprise Resource Planning (S-ERP) systems and digital taxonomies streamline the collection, analysis, and verification of ESG data, directly addressing persistent challenges of greenwashing and standardization deficits (Abhayawansa et al., 2025; Latif et al., 2023).

Significantly, research acknowledges that this change is more than just a technical process. The effectiveness of DT depends inherently on strategic organizational factors, particularly the ability to work outside traditional silos and to stimulate agile, cross-functional collaboration. This requires Digital Dynamic Capabilities - that is, the managerial capacity to address shifting and dynamic ESG schemes by rapidly reconfiguring resources (Mohaghegh et al., 2025; Teece, 2018). Successful integration is then not solely reliant on an investment in technology; it is also reliant upon the management of change more broadly: overcoming cultural resistance, establishing a straightforward narrative around the strategic intent for the twin transition, and incentivizing ("nudging") data-driven actions to stimulate the effective adoption of the digital toolbox. (Kotter, 2012; Fitzgerald et al., 2014).

This possibility is actualized through a digital toolbox that integrates these technologies not as isolated technologies but as a 'data value chain' that continuously connects IoT, framework, AI/analytics, blockchain, framework, and communication platforms: IoT is the sensory nervous system gathering raw data; AI and analytics are the cognitive brain processing that data into intelligence; blockchain is the immutable ledger verifying truth; cloud is the scalable infrastructure supporting the entire system; and communication platforms the circulatory system distributing insights for coordinated action. The potential of this integrated system is strategically valuable, as indicated by the Resource-Based View (RBV), which considers such capabilities as valuable, rare, and difficult to imitate (Barney, 1991). As the following analysis will show, this digital toolbox laid out the tangible infrastructure for the Four Cs of Leaderful Practice: scaling collective intelligence, enabling action to adjust to operating at the same time, enabling collaborative effort to be transparent, and providing verification for compassionate engagement.

However, this relationship has a key dilemma. The infrastructure that enables digital transformation -- data centers, networks, device production and manufacturing, etc.-- requires significant energy and resources and increases e-waste generation and CO2 emissions (Bieser & Hintemann, 2022). For example, one necessary perspective on the twin dichotomy should be to adhere to green IT principles, so that the actual energy efficiency and ecological footprint of digital tools serve as the sustainability key performance indicators (KPIs), ensuring solutions do not inadvertently worsen the issues they aim to solve.

3.2.1 The Human Core of Digital Transformation: Leadership, Culture, and Democratization

Ultimately, a digital toolbox is about people and organizations and not just technology. As Rockwell Automation (2021) notes, it will take "bold executive leadership willing to lead a systemic change effort, collaboration across a functional structure, and a corporate culture that consciously seeks to change" (para. 3). The primary challenge, therefore, lies in reconciling a digital-first mindset with a sustainability-first paradigm (Bandeira-de-Mello et al, 2024). This will require reconfiguring dynamic capabilities to shift the organization from rigid, top-down control to agile, decentralized decision-making (Teece, 2018).

Digital tools help realize this cultural change by enabling radical transparency. To illustrate, an organization may apply AI-driven dashboards and ubiquitous sensor data to allow an organization to change complex environmental, social, and governance (ESG) metrics, previously a proprietary tool employed by managers in an organization, into an asset accessible to all in the organization, increasing accountability and shared ownership across the organization (Mio et al., 2023). Reflecting on energy usage in real-time dashboards shared with employees across all departments helped inform Siemens (2023) employees about power consumption. It enabled them to make adjustments to achieve the desired results on their own, thereby making the practices more sustainable. This is one of the most crucial details of knowledge sharing and is used to mitigate the effects of information asymmetries that have hindered sustainability efforts (Latif et al., 2023).

This transparency, in turn, facilitates modern work structures, the Collectiveness and Concurrency that characterize leaderful practice. Digital collaboration tools enable collaboration from anywhere, which is essential for keeping organizations aligned and cohesive across diverse stakeholders, particularly in global supply chains (Schiuma, Carlucci, & Chiesa, 2022). This model allows employees to use digital tools to monitor, analyze, and respond to sustainability data, creating an emergent basis of leadership grounded in expertise and context rather than simply on formality or hierarchy (Raelin, 2011). The idea of agency represents a distribution of responsibility in a decentralized fashion and promotes the kind of psychological safety required to unlock green innovation and leverage local knowledge for systems improvement (Asbeetah et al., 2025)

3.2.2 Barriers to an Equitable Twin Transition

The integrated digital toolkit can be transformative. Still, there are considerable and systemic barriers to the widespread adoption of (and equity in) its use, especially among SMEs in emerging

economies. The barriers are often related to a lack of digital infrastructure, resistance to decentralized business models, and a lack of supportive policy frameworks (Bindeeba et al, 2025). Therefore, the success of integrating digital tools with sustainable outcomes, the Twin Transition, is bottlenecked by three interlocking areas: capital, capability, and cultural alignment.

Capital-intensive sectors, such as manufacturing, face challenges in adopting smart infrastructure. This is due to both the up-front costs and the difficulty of integrating AI-based climate monitoring with existing, diverse legacy Operational Technology (OT) systems (Teece, 2018). Likewise, Small and Medium-sized Enterprises ("SMEs") frequently face a triple burden: restricted access to essential digital tools, an acute shortfall in green financing, and an inability to implement even rudimentary technologies to achieve efficiencies (Nwagbala et al., 2025). This is particularly true for technologies which build in some level of transparency, an example being blockchain - for SMEs where trust in the supply chain relationship is primarily based on personal and relationship trust - the blockchain creates a layer of trust formalization through verifiable evidence to the external environment (Abhayawansa et al., 2025), however, the lack of flexibility in that trust formalization can erode the ambiguity of their strongest partnerships, and lead to an increased *Relational Performance Gap.* The tension between relational quality and formalized performance levels has been a topic of research (Mio et al., 2023).

This combination of difficulties could create a new sustainability gap, in which large, resource-endowed corporations can leverage synergies from the twin transition (Dahou et al., 2023). To bridge this gap, intentional, strategic policy measures are needed to expand access and build local capacity. Numerous successful models have shown that co-designed, context-specific solutions are essential (Schoemaker et al., 2018). For example, in Kenya, a program that provided farmers with subsidized broadband and WhatsApp-based advice and services resulted in a 37 percent reduction in post-harvest losses and connected digital access to sustainable livelihoods (World Bank, 2023). Another example is a blockchain registry in a vernacular language, designed in collaboration with artisanal Pokot miners, which increased revenue retention for local miners by 33 percent, demonstrating that progressive community innovation can advance local empowerment, economic inclusion, and environmental accountability simultaneously (Fülöp & Topor, 2025).

These examples reinforce an important aspect of the digital divide: it can be bridged in organizations by first facilitating Collaborative and Compassionate leaderful practices that incorporate local knowledge and directly support closing the Relational-Performance Gap.

3.2.3 The Integrated Digital Toolbox for Sustainability

The digital toolbox puts into practice the relationship between digital transformation and sustainable performance through its five interconnected technologies. The "digital toolbox" now permits organizations to convert sustainability vision into measurable performance, resulting in an ongoing flow between data collection and demonstrated impact.

The Internet of Things (IoT): The Foundation of Data Collection and Big Data

The Internet of Things (IoT) establishes interconnected networks of sensors that autonomously and continuously collect fine-grained environmental and operational data from all points of the value chain (Seidor, 2024; Syrmos et al., 2023). These sensors, deployed throughout facilities and supply chains, monitor important sustainability indicators from real-time energy and water consumption to air quality and machine maintenance status so that claims can be optimized in a variety of use cases extending from improving precision agriculture to monitoring infrastructure (Sensgreen, 2024; Jagtap et al., 2021).

What is unique about the IoT is its ability to uncover "high-frequency, location-specific data that allow for proactive environmental monitoring and resource allocation" (Ma et al., 2023, p. 13086). For example, an IoT-based system installed in a beverage manufacturing plant identified "water hotspots," resulting in an 11 percent reduction in daily water consumption across its packaging line (Jagtap et al., 2021), illustrating how raw data collection yields immediate, measurable resource efficiencies.

Artificial Intelligence (AI) & Analytics: From Data to Actionable Insight

The enormous, high-frequency data streams produced by IoT devices have limited strategic value until they are sifted, interpreted, and acted on. AI and big data analytics will be critical in discovering complex, non-obvious patterns, predicting the future, and automatically optimizing processes to achieve a sustainable impact on the communities in which they operate. Specifically, AI-powered predictive maintenance models can eliminate waste and downtime. AI-powered route optimization in reverse logistics may also significantly reduce CO_2 emissions by establishing the most carbon-efficient transport routes (Mandal & Mohammed, 2024).

This functionality serves as the essential 'cognitive layer' that enables sustainability, as AI models deliver the analytical rigor necessary to convert big data into more optimal, greener decisions (Fülöp & Topor, 2025). These complex systems are then communicated through a BI dashboard, which takes complex data and presents it in a simple, intuitive visualization, both for internal decision-making and for disclosure to stakeholders who represent their interests. To aggregate raw information into actionable real-time information for organizational management, and to implement an iterative improvement process.

Blockchain: The Engine for Verification and Trust

Verification of sustainability claims is crucial for credibility and thus for actionability, whether in supply chain relationships or in a carbon market context. Blockchain technology, a key enabler of sustainability metrics, provides a secure, transparent, and immutable ledger (Kaleido, 2024). When verified carbon emission values, fair trade attestation, or confirmation of ethical sourcing are provided, the recorded data becomes virtually impossible to change, thereby providing a permanent, verifiable audit trail (Gupta et al., 2021).

This key feature is redefining transparency in supply chains by verifying sustainable practices by supply chain actors from farm to consumer, ranging from a coffee supply chain to the seafood sector, and in carbon markets to protect against fraud and double-counting of mitigation credits (Rejeb et al., 2023). For SMEs, who often know suppliers and service providers on an informal, personal trust basis, blockchain technology can be a two-edged sword. It can provide security and be legally verified, with trust formally documented as bankable evidence for new clients and investors (Abhayawansa et al., 2025). However, if implemented rigidly as a tool of pure compliance, it can strip away the nuanced, informal flexibility that is the bedrock of SME relational capital, thereby widening, rather than bridging, the Gap**.**If not addressed and leveraged by high-integrity Collaborative and Compassionate leaderful practices in/through that process (Mio et al., 2023)

Cloud Computing: The Scalable Infrastructure

The entire digital infrastructure for sustainable performance is contingent on a large-scale computing capacity that is both robust and scalable, which is provided mainly by cloud computing platforms, which can afford much-needed on-demand capacity to enable efficient data storage and

management for the significant amount of data that will both flow from IoT networks and the complex algorithms associated with AI workloads (PwC, 2022).

This scalability and flexibility also democratize access for organizations of all sizes (including SMEs) to install complex sustainability management systems without significant investments or high upfront capital costs to support their data centres (Buyya & Gill, 2018). Green cloud services promote sustainability, as they offer one of the most energy-efficient options when compared to local fragmented servers (Garg et al., 2013). This democratization of high-power computing is essential for peer-reviewed SMEs that need to close the Relational-Performance Gap with the necessary digital tools, without the unbearable capital outlays.

Digital Communication Platforms: Bridging Insight with Action

Lastly, Digital Communication and Collaboration Platforms (e.g., WhatsApp Business, Microsoft Teams, Slack), a topic analyzed in the following paragraph, constitute an important organizational layer for translating verifiable data into coordinated, collective action (Mohaghegh et al., 2025). These technologies enable real-time, multi-stakeholder communication, which is necessary for dismantling internal and external organizational silos and for initially embedding sustainability into everyday organizational life (Latif et al., 2023). For example, WhatsApp Business as a business can allow for real-time, decentralized communication with remote suppliers, and allow for the rapid deployment of environmental protocols, and prompt reporting of issues, which is an essential function to sustain social compliance in fragmented supply chains (Schoeman & Van Niekerk, 2022). Microsoft's Teams app provides a centralized collaboration site that combines live chat and task assignment with AI-driven real-time ESG dashboards (Microsoft, 2024). The key is for the Concurrency and Collaboration team to sense, discuss, and coordinate a response to an unexpected spike in energy usage, all without leaving their dashboard app. The need for both tools is to speed up the firm's dynamic capability to adjust to sustainability challenges facing its organization (Teece, 2018).

This digital toolbox is a new, inclusive framework for collecting, analyzing, and monitoring sustainability data that can serve as a basis for organizations to articulate their ESG performance credibly. This change is necessary to move from a backward-looking and narrative-focused reporting process to a forward-looking, data-capture accountability chain (Abhayawansa et al., 2025). Such verifiable transparency is important for building and sustaining stakeholder trust and

ensuring that the organization complies with rapidly evolving (and often complex) regulatory frameworks, such as the EU's commitment to the Corporate Sustainability Reporting Directive (CSRD) (ESG Book & C3 AI, 2023).

Supplies the necessary scaffolding needed to bridge the Relational-Performance Gap described in Chapter 2 structurally. For SMEs, whose competitive strengths regularly stem from informal, organic relations, such tools provide the scaffolding necessary to formalize and scale those salient relational capabilities (Lohman & Weingartner, 2021). Digital platforms in particular convert tacit knowledge and trust-based networks into verifiable and auditable data - the coin of today's modern ESG and SDG reporting (Abhayawansa et al., 2025).

Nevertheless, this integration begs a compelling question: Is leaderful practice capable of leveraging these tools to strengthen relational capability? Alternatively, will their use become yet another layer of rigid, technocratic imposition on authentic relational practice, diminishing the flexibility and nuance of relational work and thereby exacerbating any gaps (Mio et al., 2023)? For SMEs, this leaderful-digital integration is unavoidable; it is an absolute necessity. It provides a way for SMEs to capitalize on their relational agility - their unique ability to act together and simultaneously (Teece, 2018) - and to use low-cost digital platforms to achieve the formal verification and reporting compliance that the market demands. They convert their contextual relational advantage into standardized, verifiable value, ultimately allowing them to close the Relational-Performance Gap through their agility rather than despite their size. Together, this integrated toolbox transforms sustainability from a static report into a dynamic, verifiable, and collaborative process, providing the technical scaffolding for the leaderful architecture

3.3. Digital Transformation in Communicating Sustainable Performance

The ability of organizations to effectively communicate their sustainable performance, distilling complex ESG (Environmental, Social, Governance) data and performance towards the SDGs (Sustainable Development Goals) into a clear, actionable, and trustworthy narrative, is fundamentally transformed through Digital Transformation (DT). Traits of this DT-based transformation of communication enable organizations to go from static, annual, PDF documents to real-time, interactive, and personalized disclosure (Abhayawansa et al., 2025). Technologies such as Blockchain ensure the verifiability and integrity of ESG data streams and create an

immutable ledger of sustainable activities, meeting stakeholders' concerns of greenwashing and increasing governance transparency (Gupta et al., 2021).

Additionally, tools such as AI-based sentiment analysis and dynamic digital dashboards are making it easier for firms to not only automate the mapping of internal ESG data from firms to external SDGs (e.g., automatically tagging energy consumption data with both SDG 7 and SDG 13) but also to tailor communication to specific stakeholder groups—investors, consumers, or local communities—thereby fostering engagement and legitimacy (Mio et al., 2023). The digital ability to integrate, verify, and disseminate performance measures is essential to creating the relational capital necessary for collective action and accountability in achieving long-term sustainability goals (Latif et al., 2023). This represents nothing less than a revolution in corporate accountability.

At its core, the revolution, if we can call it that, stems from the conscious choice to use real-time communication technologies, which are crucial for the Social (S) and Governance (G) aspects of ESG performance. Communication platforms such as WhatsApp Business, Microsoft Teams, and Zoom have removed location and time barriers and, in essence, changed how organizations connect and engage with their stakeholders and need to mobilize collective action (Mohaghegh et al., 2025). Notably, these technologies are addressing a much-needed communication uplift for all members of the community (stakeholders, suppliers, and residents), which is linked to improved S and G ESG performance.

The immediacy of this connectivity enables rapid feedback loops and collaboration among internal teams and external community members/partners. Therefore, these tools enable a more streamlined flow of information, expediting mobilizational processes to deliver impactful social programs. Engaging volunteers to inform on health & safety and community investment initiatives enables firms to rapidly disseminate information in accompaniment with SDG 3 (Good Health and Well-being) and SDG 8 (Decent Work) (Latif et al., 2023).

At an organizational level, tools like Microsoft Teams facilitate a transparent, auditable communication trail of the decision-making process, supporting Governance in fostering accountability to and engagement with stakeholders while improving the organization's compliance with SDG 16: Peace, Justice, and Strong Institutions (Teece, 2018). Notably, the immediacy of these tools also promotes relational capital development to nurture trust, and co-creation of solutions with community stakeholders that enable organizations to efficiently and

inclusively influence and mobilize solutions for environmental, or social uncertainties within local contexts (e.g. emergency response programs concerning supply chain or environmental incidents) more readily and inclusively required in the relational capital development for supply chain resilience needed to act sustainably (Khaw et al., 2022).

3.3.1 Real-time Communication Tools to achieve ESG performance

Incorporated real-time communication devices aim to become the leaderful organization's central nervous system (CNS), connecting concurrent and collaborative processes to normalize the sustainability strategy into an operating system for continuous, day-to-day, responsible behaviour. Sustainability communication has fundamentally shifted from compliance-based considerations of sustainability (with tools such as Microsoft Teams, WhatsApp Business, and Zoom no longer seen as a ten-point compliance exercise) to adding value through the development of a strategic process for sustained resilience and competitive advantage (Latif et al., 2023). Digital-enabled solutions redefine an organization's capacity to leverage ESG performance and associated communication to stakeholders. The collaborative space generates continuous, transparent and stakeholder-involved feedback.

The strategic implications of such an alteration are extensive. On the outside, it is a proactive measure to address reputational risk and will establish corporate credibility by reducing greenwashing immediately (Eccles et al., 2019). It is an immediate creation of trust, which is an essential element of the Governance (G) pillar, between investors, regulators and customers by closing feedback loops and establishing more accountability (Gupta et al., 2021; Teece, 2018)The internal transformation that occurs through real-time collaboration and offering external parties data is the essential pre-condition of credible communication with the outside (Schiuma, Carlucci and Chiesa, 2022).

Because of these modifications, the new collaborative environments sweep aside silos in the organization, integrating divisions through a fundamental culture shift that allows employees to recognize and take immediate action on the sustainability priorities they are given buy-in to (Mios et al., 2023). Providing a platform for an ongoing multi-stakeholder dialogue, through these tools, organizations will proactively and inclusively seek engagement with the whole family of actors (including supply chain partners and community stakeholders) to actively support the betterment of the Social (S) pillar and operationalize SDG 17 (Maniora, 2018; Mohaghegh et al., 2025).In

essence, real-time communication tools provide the essential infrastructure for translating abstract sustainability ambitions into tangible operational reality.

The following table provides a concrete blueprint for operationalizing the Four Cs through digital tools.

Table 3.1: Mapping Communication Tools to Leaderful Practice and Sustainability Outcomes

Digital Tool	Leaderful Enabler (The 'How')	Strategic ESG Use-Case	Key Relational & Performance Benefit	Academic Support
WhatsApp Business	Concurrency & Collaboration	Real-time supplier check-ins and swift safety protocol distribution in fragmented supply chains (S-Pillar).	Enables Decentralized Action. Builds immediate trust and accountability with remote partners, minimizing social risk exposure.	Schoeman & Van Niekerk (2022)
Microsoft Teams / Slack	Collectiveness & Collaboration	Integrated channel for discussing live ESG dashboard data and coordinating a rapid, cross-functional response to an efficiency alert (E/G-Pillars).	Fosters Shared Context & Agility. Creates the transparent, collective sense-making essential for dynamic capabilities and rapid adaptation.	Teece (2018)
Zoom / Google Meet	Compassion & Collaboration	Hosting inclusive virtual community consultations and accessible ESG training sessions for diverse, geographically dispersed stakeholders (S-Pillar).	Promotes Inclusive Engagement—Fosters psychological safety and legitimacy by giving all voices a platform, demonstrating ethical care.	Latif et al. (2023)
Miro / MURAL	Collaboration & Collectiveness	Digital workshops for co-designing circular product lines or visually mapping complex sustainable supply chains with cross-functional teams (E-Pillar, SDG 12).	Structures Co-Creation. Makes the innovation process visible and democratic, ensuring diverse perspectives are integrated into sustainable design.	Mohaghegh et al. (2025)

Such tools are not just utilities, as this mapping shows, but the basic architecture of the distributed, co-creative leadership needed to bridge the Relational-Performance Gap- the overriding issue this research has found. Their effectiveness in fostering teamwork is consistent with existing theories of organizational communication (Daft & Lengel, 1986), which can be used to discuss their functionality.

Operational Transparency via Mobile Platforms: WhatsApp Business enables businesses to stay in touch with remote suppliers and employees, quickly disseminate environmental and safety guidelines, and gather on-the-ground information on working conditions. This will create transparency in its operations, quick redress within the intricate supply chain, and effectively turn sustainability management into a routine rather than an annual evaluation (Schoeman & Van Niekerk, 2022). This flow of information, in real time, improves the organization's capacity to

recognize and grasp opportunities for compliance and improvement, which is directly linked to the creation of organizational agility (Teece, 2018).

Platforms like Zoom and Google Meet are redefining how organizations engage with their stakeholders. In addition to facilitating virtual audits and community consultations and providing ESG training, they also allow organizations to engage with more people, and from more diverse backgrounds (Latif et al., 2023). Beyond the convenience, remote engagement reduces business travel, which contributes to carbon emissions, so the way we engage supports our environmental goals, too (Singh et al., 2021). By including video, voice, and chat tools, these platforms provide an altogether richer communication medium that helps build stronger interpersonal trust and relationships (Daft & Lengel, 1986). Richer interaction is a key element of creating more inclusive engagement and increasing performance within the Social (S) aspect of ESG. Companies like Microsoft Teams are becoming robust platforms that combine chat, file sharing, project management, and live ESG dashboards into one platform experience (Microsoft, 2024). The integration reduces obstacles for cross-functional teams to recognize energy use spikes in real time on the dashboard, have the conversation, and respond without leaving the platform. It is a key benefit of closing the gap between data interpretation and decision-making for action (Mohaghegh et al., 2025).

This strategy also addresses important challenges of virtual work, such as geographic distance and rapidly changing organizational objectives. By using a shared digital infrastructure, these platforms support collaboration, innovation, and co-creation, even when one person is on a screen and another is in person (Gibson & Gibbs, 2006). At their core, these tools build ongoing functions of the communication process. They cannot be overlooked as mere communication tools; we consider them a fundamental building block for establishing responsibility and a culture of continuous learning and improvement (Latif et al., 2023).

The digital communication framework exhibits noteworthy potential to democratize access to sustainability data, especially for small and medium-sized enterprises (SMEs) and grassroots actors. Cloud computing and mobile technology reduce barriers to participation, allowing smaller organizations to monitor, manage, and report on their sustainability impact with the rigor and scientific underpinning historically only available to large corporations. For example, the digital platform Plant Village in Kenya enables farmers to use WhatsApp and AI-enabled disease

diagnostics to identify crop diseases and receive real-time agronomic support, increasing yields and contributing to SDG 2 (Zero Hunger) (Mongabay, 2024). The use of platforms, such as Plant Village, strengthens the sense of shared inclusivity around sustainability practices and builds on the global sustainability data ecosystem by integrating localized, community-implemented knowledge that supports longer-term, more equitable steps towards the SDGs.

However, the power of these communication channels extends beyond their practical role. They are also critical to enabling a culture of accountability and continuous improvement. By harnessing touted real-time connectivity, they serve as a highly effective bridge between ESG strategic objectives and operational realities, enabling sustainability to be translated from a once-a-year reporting event into a practice integrated into the organization's daily operations. Therefore, modern sustainability communication is not simply about reporting performance; it is about enabling the adoption of sustainable behaviors through digitally enabled collaborative working at the heart of operational processes.

3.3.2 The Digital Bridge: Operationalizing ESG-to-SDG Reporting

The internal alignment enabled by real-time communication tools provides the crucial organizational foundation for credible external reporting. Sustainability reporting has undeniably moved from a voluntary and peripheral activity to a core strategic resource, as it continues to serve as the primary lens through which we demonstrate the verifiability of our ESG performance and commitment to the broader Sustainable Development Goals (SDGs) (United Nations, 2021). This change represents a watershed of corporate accountability, and the demands of the market, fuelled by investor pressure. As of 2021, investors with more than USD 110 trillion assets under management were aggressively seeking standard climate-related data, turning ESG disclosures into a fiduciary duty (CDP, 2021; Berg et al., 2021). Furthermore, this movement has been cemented by regulatory forces such as the EU's CSRD, which requires reporting in standardized, digital, and verifiable formats (Abhayawansa et al., 2025).

Digitization powers this transformation, reinventing the reporting process from a fixed, historically based, backward-looking exercise into fluid, near-real-time reporting (Mio et al., 2023). Dynamic online reports represent a significant methodological advancement over paper and static PDF documents. Online reports allow disparate stakeholders to access data and filter and display metrics of interest interactively (Eccles et al., 2019). Moving from a "push" reporting concept to a

"pull" reporting format introduces unprecedented engagement and transparency that align directly with the Global Reporting Initiative (GRI) recommendation that stakeholder access to information and decision utility improve significantly with digital formats (GRI, 2022; Maniora, 2023).

In addition to just providing access to data, organizations are utilizing digital storytelling platforms to illuminate complex data and translate metrics into context-rich stories. Through interactive maps, infographics, and short videos, organizations can share the tangible impact of their sustainability efforts in relatable ways to evoke emotional closeness and trust among stakeholders (Lodhia, 2018; La Torre et al., 2020). Digital storytelling leverages both raw data and insights from qualitative and quantitative indicators in the company's internal AI-powered dashboard, resulting in rich, multimedia stories that integrate quantitative data and qualitative context. This helps close the compliance-story practice gap (Schiuma, Carlucci, & Chiesa, 2022). The ongoing, evolving communication model ultimately bolsters the organization's legitimacy while strengthening its long-term financial performance by signalling its commitment to strategic, integrated ESG management (Gao & Bansal, 2013).

The Regulatory Imperative: CSRD and Double Materiality

This digital shift has therefore become a crucial regulatory imperative, not merely a strategic choice for complying with the increasingly complex global regulatory landscape, particularly the European Union's landmark Corporate Sustainability Reporting Directive (CSRD) (European Commission, 2022). The CSRD mandates comprehensive reporting under the European Sustainability Reporting Standards (ESRS), which are built upon the foundational principle of double materiality (EFRAG, 2023). This principle radically expands accountability, requiring companies to disclose both how sustainability issues affect their business (financial materiality) and how their operations impact society and the environment (impact materiality) (Ioannou & Serafeim, 2017). This demanding scope and complexity necessitate integrating data across numerous internal functions (finance, operations, HR) and external supply chains, going far beyond traditional, siloed financial reporting (Adams, 2021).

Critically, the CSRD imposes a technical mandate: all reported sustainability data must be published in a digitally tagged, machine-readable format (European Commission, 2022). This technical requirement is the single most significant regulatory driver, compelling companies to integrate and use robust digital tools from IoT sensors that provide granular operational data to AI

models that perform complex impact analyses that deliver the consistency, comparability, and reliability investors and users expect (Abhayawansa et al., 2025). As Fülöp and Topor (2025) note, digital solutions like blockchain and smart contracts are essential because they "provide a foundation for auditable and unchangeable data recording, a core requirement for regulatory compliance.

This transition to digital is not simply a strategic decision. It is a demanding requirement to adhere to the global regulatory environment, which is becoming increasingly complex, especially with the European Union's historic Corporate Sustainability Reporting Directive (CSRD) (European Commission, 2022). The CSRD requires that reporting takes place under the unique European Sustainability Reporting Standards (ESRS), which are based on and originate from an initial principle of double materiality (EFRAG, 2023). The scope of the principle broadens the elements of accountability in that companies need to disclose information about both how sustainability factors impact their business (i.e., financial materiality) and how their business activities impact the economy, society, and/or the environment (i.e., impact materiality) (Ioannou & Serafeim, 2017). Both the rigorous scope and complexity will require an integration of data from the multiple functions of businesses that this requires to gather (e.g., finance, operations, HR), as well as external supply chain data that greatly expands any notion of siloed reporting as was previously considered when providing traditional financial reporting (Adams, 2021).

Notably, the CSRD includes a technical requirement: all sustainability information must be disseminated in a digitally tagged, machine-readable format (European Commission, 2022). This requirement is the most significant regulatory driver, compelling companies to implement and adopt sophisticated digital tools—from IoT sensors collecting fine-grained operational information to AI models conducting complex impact assessments—that will provide the consistency, comparability, and reliability needed to restore confidence among investors and users (Abhayawansa et al., 2025). As Fülöp and Topor (2025) indicate, digital solutions (blockchain, smart contracts) are important because "they provide a basis for auditable and unchangeable recording of data, a fundamental requirement of regulatory compliance.

This situation reveals a significant gap between larger Multinational Corporations (MNCs) and smaller Small and Medium-sized Enterprises (SMEs). MNCs are comparatively capitalized and possess their own IT departments to establish a fully integrated digital reporting system (Teece,

2018). The issue is more an integration and scale problem: how to assemble a machine-readable report from millions of scattered information sources worldwide. In the meantime, SMEs need to surmount a three-fold capital, skills, and size. SMEs lack access to capital, green financing, and in-house digital expertise (Nwagbala et al., 2025).

The CSRD technical requirement limits how far SMEs can contribute to the market, requiring them to find solutions they can hardly afford to comply with the digital reporting needs of their MNC customers (Dahou et al., 2023). This dynamic creates a real risk that the Relational-Performance Gap will widen, making Leaderful Practice, enabled by low-cost digital platforms, not a luxury for SMEs but a strategic necessity for survival. Thus, the attributes of the platforms facilitate automated compliance, improve disclosure quality and reliability, and mitigate the continuous threat of greenwashing (Gupta et al., 2021). Interactive dashboards can allow stakeholders to access blockchain-verified data on a company's carbon footprint or supply chain accountability, turning a sustainability report's one-way dialogue into a validation system for social responsibility (GRI; Kaleido, 2024). The digitally required disclosures, seconded by double materiality, will ensure ESG performance in direct governance of legal and strategic performance (G-Pillar) as digital literacy becomes automatic for market access.

Bridging Theory and Practice: SME Case Studies in ESG-SDG Integration

The transition to digital means allows for more accurate and transparent alignment of ESG management with contributions to the Sustainable Development Goals (SDGs). Leading companies, including SMEs, are increasingly using digital tools to explicitly show the connections between core ESG factors and the SDGs they support. Therefore, organizations move beyond stating a vague intention to contribute to a global goal to a demonstrable, data-rich account of impact, often aligned with their business framework (United Nations, 2021).

The following examples illustrate different types of SMEs establishing this bridge through their operations rather than through wide-ranging abstract commitments. Pak-Agri Fertilizers Ltd. (Pakistan - PSX GEM Board) market operational ESG-SDG linkages precisely through its core business operations; improvements in energy and water efficiency in fertilizer production contribute directly to SDG 12 (Responsible Consumption) and SDG 13 (Climate Action). Moreover, providing quality agricultural inputs will contribute to SDG 2 (Zero Hunger) and maintaining employment in rural settings ties the firm to that SDG and SDG 8 (Decent Work)

(Bandeira-de-Mello et al., 2024). Good governance practices relating to financial transparency rules promote accountability and institutional trust, thereby advancing SDG 16 (Peace, Justice and Strong Institutions) and SDG 9 (Industry, Innovation and Infrastructure) (Khaw et al., 2022).

At the same time, Maps S.p.A. (Italy - Technology Sector) can serve as a strong illustration of the role of technology enterprises as forces of sustainability: its energy monitoring software can help its customers achieve SDG 7 (Affordable and Clean Energy) and SDG 13 (Climate Action). Meanwhile, the quality of the services to the population and the need to contribute to SDG 3 (Good Health and Well-being) are improved by their healthcare data management systems. Their governance is based on R&D due to enhancing digital infrastructure, which is a direct part of SDG 9 (Industry, Innovation and Infrastructure) (Mohaghegh et al., 2025). Last but not least, a critical example of how to incorporate sustainability into its manufacturing identity can be provided by SABAF Group (Italy - Manufacturing SME). Its history of energy efficiency in manufacturing and emissions cuts in gas production align with the SDG 9 and SDG 12 (Responsible Consumption and Production) innovation target. Additionally, the company's dedication to employee welfare, fair working practices, and open management can create a strong organizational structure that supports the ideals of SDG 8 (Decent Work) and SDG 16 (Teece, 2018), leveraging its family-owned tradition.

These examples of agriculture, technology, and manufacturing demonstrate that the ESG-SDG bridge is built primarily on basic business operations rather than on abstract promises. These sustainability reporting tools provide the means by which SMEs such as them can officially record their organic and operational practices to allow them to systematically attribute a decrease in water consumption to SDG 6 or a new product efficiency to SDG 9, turning disclosures into plausible maps of their contribution to the globe (Abhayawansa et al., 2025).

Nevertheless, there are still serious obstacles. The regulatory and reporting framework ecosystem remains disjointed across the global community, with major international reporting and regulatory bodies such as GRI, SASB, and CDP, thereby limiting comparability and credibility and undermining market confidence (Berg et al., 2022). Moreover, as with SMEs, the costs and capabilities required to deploy advanced, digitally enabled reporting systems are steep. Thus, there is an immediate need to scale up, prepare cloud-based solutions, and adopt leaderful practices that

enhance the performance of small-team-oriented teams (Lutzkendorf & Balzli, 2023; Nwagbala et al., 2025).

Even though these reporting frameworks seek to enhance transparency and comparability, they face substantial criticism regarding their utility. A prominent concern is the established subjective preference and the absence of thresholds for ESG measures, which may ultimately yield "vastly different ratings from competing agencies," thus compromising stakeholders' faith in and reliance on the data (Christensen, Serafeim, & Sikochi, 2022, p. 1317). This "aggregate confusion" has the potential to undermine sustainability disclosure, either legitimizing or 'box-ticking' a practice that scholars have long debated (Hummel & Schlick, 2016).

For small and medium-sized enterprises, complexities of this nature create a substantial gap between their genuine, relational sustainability practices and the official world of reporting. The gap between disclosure and sustainability reporting can be closed through the socio-relational leadership approaches discussed in the next section. To sum up, while digital tools are changing substantive sustainability reporting, increasingly framing reporting and disclosure as a dynamic interface for accountability, they also present new obstacles (e.g., increasing compliance obligations and a possible new digital divide), which further necessitate the socio-relational leadership approaches explored in the next section.

The Reporting Paradox: Standardization vs. Relational Authenticity

Frameworks such as the Corporate Sustainability Reporting Directive (CSRD) and the Global Reporting Initiative (GRI) are vital tools that create a shared language for sustainability performance, serving the essential purposes of increasing transparency and ensuring the comparability and auditability of data to prevent greenwashing (Adams, 2021). This institutional push for standardization lends credibility to ESG data for investors and regulators in managing information asymmetries. However, the need for standardized metrics equally creates an unintentional "one-size-fits-all pressure" that may marginalize the particularized, local, relational practices that are the basis of authentic sustainability innovations, primarily when innovations to support legitimacy occur in small and medium-sized enterprises and regional supply chains (Perrini & Castaldo, 2008). More broadly, the tension between the systemic demand for standardized data and the particularized, emergent nature of substantial impact creates the "Reporting Paradox" (Mio et al., 2023).

This paradox is immediately characterized as a central contradiction between formal assessment and an informal, relational value. The value of relational capital that constitutes trust, local knowledge, and collaborative relationships, which lead to socially effective outcomes, often gets obscured in the filter of the formalized, standardized templates. This filter is particularly responsible for measurement inconsistencies that diminish the strategic salience of ESG disclosures (Hahn & Luelfs, 2014).

Therefore, organizational interest may narrow to demonstrating measurable social and environmental impact within the world-making procedural requirements, resulting in a decoupling or 'ceremonial' implementation of sustainability policies that destabilize long-term credibility (Gao & Bansal, 2013). In the case of SMEs, this 'presents' the Relational-Performance Gap pain-point of the Relational-Performance Gap: because they are authentic and informal in their daily practice they have difficulty being boxed in to standardized reporting, so the reported figures they do report tend to misrepresent what their actual, in-context contributions to sustainability are, especially in the qualitative social value (Perrini & Castaldo, 2008).

With a Digital Transformation (DT) to help resolve this paradox, the Leadership-as-Practice (LAP) framework remains under-explored in the literature on digital transformation and leadership. While researchers have established that digital tools provide the scaffolding needed to reformulate complex, relational activities into standardized data units (Abhayawansa et al., 2025), it remains unclear which leadership model should be used to achieve this.

The LAP framework has the potential for new development here: a socio-technical architectural framework forces standardization into a platform rather than a straitjacket. It moves us beyond leader-centric approaches to digital leadership (Cortellazzo et al., 2019) by advancing consideration of the specifics of this process. For instance, a blockchain entry can serve as evidence of an area alliance, and an IoT sensor can capture a worker's productivity enhancement. More fundamentally, Leaderful Practice means that this translation is a co-creation rather than a downward-imposed, strict data mining. It allows teams to collaboratively determine how their work fits within formal contexts, and it expresses relational value authentically rather than misrepresenting it in the big report. In doing so, via the LAP, digital tools democratize the straitjacket of standardization, enabling actual dialogue, helping organizations manage the reporting paradox, and ultimately, closing the Relational-Performance Gap.

3.4. The Role of Relational Leadership and Leaderful Practice in Digital Transformation

The central paradoxes of digital transformation, for example, technology can reinforce the hierarchies it purports to dismantle, illustrating that technical solutions alone will not produce sustainable performance. To navigate this paradox, we need a new, human-centered leadership architecture. While the role of leadership is often hailed as a key ingredient in this transition, the empirical literature on 'digital leadership' typically emphasizes technological vision and agility, while retaining a leader-focused agenda. As Cortellazzo, Bruni, and Zampieri (2019) point out in their review, this retentiveness is precisely what leads to a preoccupation with the leader as the representative: purposefully neglecting the socio-technical context of the change effort, where, as Kane et al. (2019) state, 'people are the real key to digital transformation.' This is the gap we are addressing with our framework: Relational Leadership Theory (RLT) provides the philosophical ground, while Leaderful Practice (LAP) provides a pragmatic, systematic perspective of prescriptive practice that can embody and leverage the socio-technical aspects of digital transformation. Together, RLT and LAP can move us from vision function to the everyday practices of relationship, trust, and distributed agency that are at the core of a sustainable/just DT.

The significant socio-technical change of digital transformation calls for an authentic shift away from conventional, hierarchical leadership toward models based on agility, trust, and collective intelligence. This change is based on Relational Leadership Theory (RLT). As the founding RLT scholar, Mary Uhl-Bien (2006) explains: "RLT provides an important distinction between an entity perspective and a relational perspective which sees leadership as a process of social construction." (p. 654). RLT is that leadership is a relational process that has taken shape through interactions and shared meanings among individuals (Uhl-Bien et al., 2012), rather than as a quality or position of individuals.

Similarly, on the path of pushing beyond traditional leadership, Leaderful Practice (LAP) (Raelin, 2011) seeks to create organizational decision-making and leadership authority that serves the organizational whole. LAP is described as replacing traditional leadership with an emergent form in which leadership arises from multiple points within the organization through intentionally distributed leadership roles. At its core, this model challenges the conventional, hierarchical notion of a single, heroic leader and instead promotes a shared authority and participative decision-making. As Joseph Raelin points out, in a leaderful organization, "everyone can be a leader, and

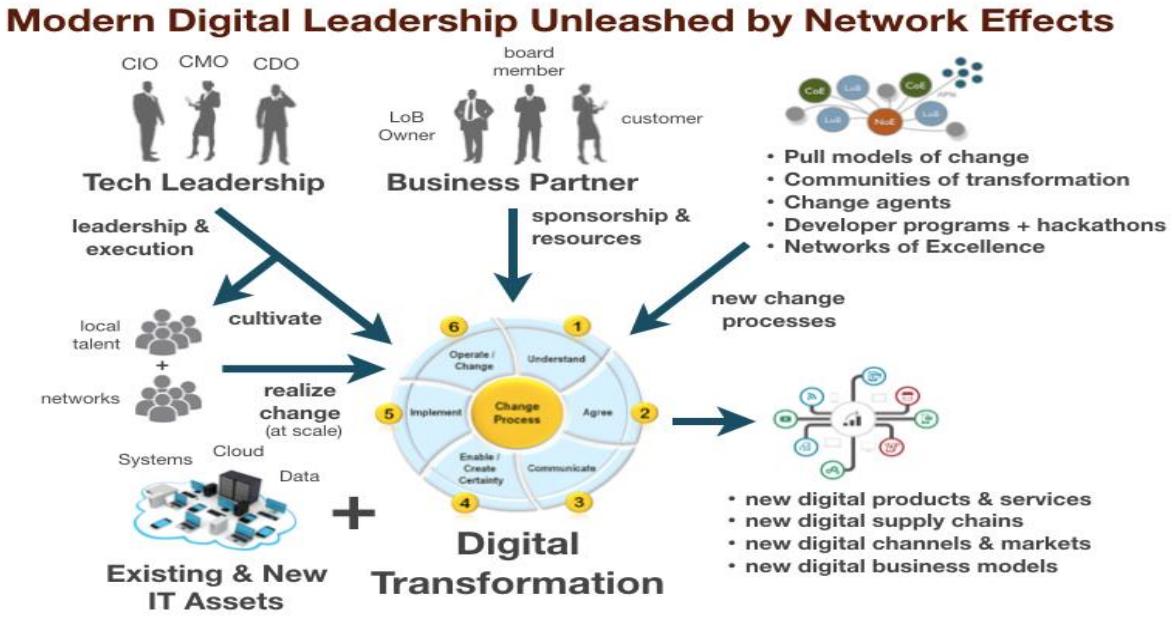
everyone is expected to contribute to the leadership of the firm" (Raelin, 2003, p. 11). This model enables involvement, idea generation, and joint problem-solving from any organizational member, regardless of their employment status. This two-fold shift of perspective from that which is person-based to process-based creates a culture of mutual respect, psychological safety, and shared ownership. This cultural foundation is critical for the pace of sensing and coordination of action needed in real time for ESG data.

A new leadership plan is clearly needed, given the swift organizational changes that come with the digital transition. Modern Leadership conceptual models echo this need by demonstrating a transition from a top-down, hierarchical model to an interconnected, relational ecosystem-led model (Uhl-Bien et al., 2012). Tensions arise during the business model change, and new organizational dynamics form that increase organizational connectedness and transparency and reduce hierarchies (Nachira et al., 2006). These dynamics offer significant opportunities but are complicated by barriers. This is precisely why it is essential to apply the Relational Leadership Theory (RLT): to focus on empathy and dialogue (Uhl-Bien, 2006), while leveraging technology and discovering ways to promote inclusion and equity, especially given the risks posed by automation and job displacement (Cortellazo et al., 2019).

Bringing together Leaderful Practice creates an approach to accountability and engages in collaborative action with distributed teams (Raelin, 2011). These hold promises for ensuring that digital transformation is more than responding to technology, and is a human-centered, ethically engaged, and sustainable organizational practice. Without relational and distributed forms of leadership, digitization will enhance existing hierarchies, risk creating new technocratic forms of control, and fundamentally threaten the possibility of authentic sustainability performance.

The profound organizational shifts generated by the digital transition clearly indicate the need for a new leadership paradigm. This shift is visually captured in models of modern digital leadership, such as Hinchcliffe's (2017), which emphasizes network effects and distributed agency over traditional hierarchical command.

Figure 3.1: A Model for Modern Digital Leadership Unleashed by Network Effects



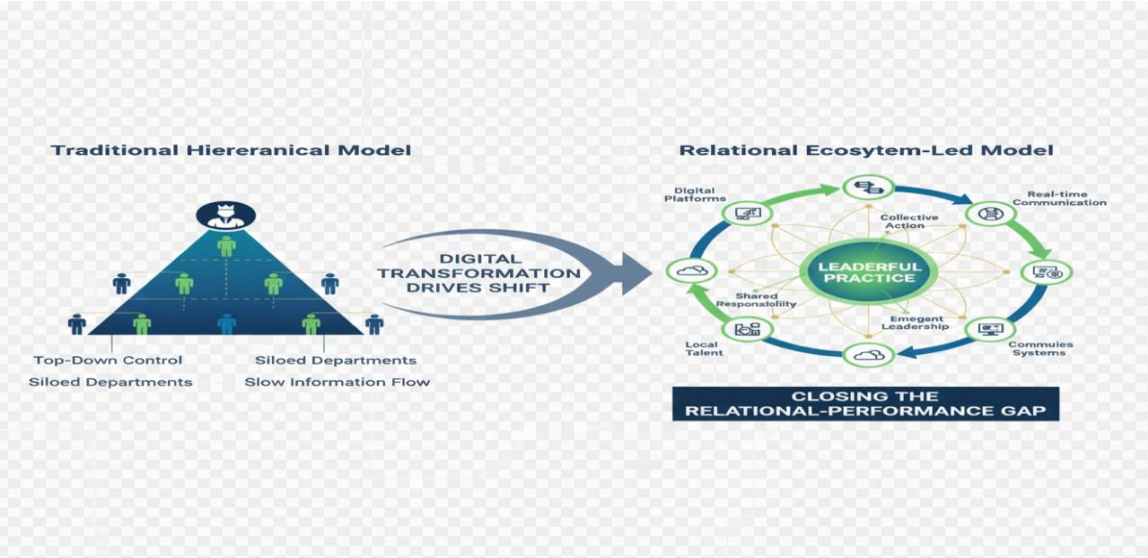
***Source**:* Hinchcliffe, D. (2017). Modern Digital Leadership Unleashed by Network Effects. Creative Commons.

Current leadership theoretical models reflect this necessity, shifting toward a connected, ecosystem-led model from a traditional, top-down, hierarchical model (Uhl-Bien et al., 2012). These evolving organizational dynamics (increased connectedness, greater transparency, and flatter hierarchies) (Nachira et al., 2006) offer both opportunities and constraints. With these changes come new organizational dynamics, such as connectedness, heightened visibility, and a flattening of the hierarchy (Nachira et al., 2006), which create opportunities and constraints.

This reflects an increased need for Relational Leadership Theory (RLT) to be applied because it is grounded in empathy and conversation (Uhl-Bien, 2006) through the application of technologies, fostering inclusion and equity; we need this type of leadership now more than ever as we confront the dangers associated with automation and job displacement (Cortellazzo et al., 2019). Leaderful Practice further supports this idea by sharing leadership to promote accountability and active collaboration in distributed teams (Raelin, 2011). In conjunction, these will help ensure that digital transformation is not simply an operationalization of technology but an organizational practice that is human-centered, ethical, and sustainable. Without these relational and distributed approaches to leadership, digitization will merely reinforce hierarchical structures and risk creating techno-paternalistic systems of control that eliminate real sustainability performance.

The necessity of a new leadership paradigm is made clear by the profound organizational changes inherent in the digital shift. Conceptual models of modern leadership echo this requirement, illustrating a transformation from a top-down, hierarchical model to an interconnected, relational ecosystem-led approach (Uhl-Bien et al., 2016).

Figure 3.2: The Shift from Hierarchical to Relational Ecosystem Models



Source: Author's own creation, a synthesis of traditional organizational theory (Weber, 1947) and digital leadership concepts (Raelin, 2018; Senyo et al., 2019).

Relational Leadership Theory (RLT) is widely accepted as a means of fostering collaboration, trust, and shared accountability. Still, it has neither been the explicit focus of research on digital transformation (DT) nor led to it. Most of the literature discusses leadership in a broader sense, as in constructs such as digital, transformational, or agile leadership, or in a more incidental manner, to the extent that the relational aspect is not explicitly addressed (Cortellazzo, Bruni, & Zampieri, 2019). Nonetheless, some related literature does mention elements closely aligned with relational leadership. For example, Qiao, Li, and Hong (2024) argue that successful digital leadership can improve employee performance and commitment to organizations by fostering supportive relationships and open lines of communication, ultimately promoting digital adoption. Likewise,

Ly and Chen (2023) identify trust, collaboration, and adaptability as critical relational elements of organizational agility during DT.

These principles are practically implemented through ideas such as the Four Cs of Leaderful Practice, Concurrency (decentralized action), Collectiveness (shared ownership), Collaboration (cross-boundary fine creation), and Compassion (being grounded in ethics). These principles provide the practical, everyday behaviors that animate RLT. Scholarly literature on these practices already exists in the leadership and DT literature (Sacavem, 2025; Tagscherer, 2023), and in these articles, the authors usually discuss the practices in isolation or with different, non-integrated labels. This ordering of the ideas in the literature signals a real gap regarding the juxtaposition between relational leader theory as a theoretical perspective and leaderful practices as an operational mechanism. If we can resolve this gap, the bridge will enable a rigorous inquiry into how the interpersonal dynamics of relational leadership directly precede the desired outcomes of DT. At the same time, the leaderful practices are the expressive means from which to actualize these interpersonal dynamics within organizational practice.

The foundations for sustainable performance of these models are in the Four Cs. Through active leaderful practice, the ability to create a collegial, empowered space enhances agility, creativity, and responsiveness when facing complex sustainability issues. This is especially useful in significant transitions, such as digital transformation, where minimizing the taste of reliance and authority on a single person(s) heightens the need for essential cross-boundary collaboration for success (Raelin, 2011; Mohaghegh et al., 2025). Clearly, the following table provides a workable model for operationalizing the Four Cs, using specific digital tools that enable each principle, thereby giving you a systematic and scalable approach to closing the Relational-Performance Gap by transferring informal consumptive relational strength into formally relationally based, verifiable leadership.

Table 3.2: Digital Mechanisms Enabling Leaderful Principles in Sustainability Leadership

Leaderful Principle	Digital Enablement Mechanism	Example / Academic Basis	Applied Tools / Practices	Reference
Concurrency (Decentralized action)	Real-time coordination across locations and asynchronous work platforms.	Leadership-as-Practice is required to manage virtual teams and enable rapid, decentralized decision-making in sustainable organizations (Ly & Chen, 2023).	Microsoft Teams, Slack, Asana, and project management software	Ly & Chen (2023)
Collectiveness (Shared ownership)	AI dashboards and business intelligence (BI) for transparent, shared access to data.	Transparent data sharing and visualization are key antecedents to collective decision-making and goal alignment in resource management (Schiuma et al., 2022).	Tableau, Power BI, custom ESG/BI dashboards	Schiuma et al. (2022)
Collaboration (Cross-boundary co-creation)	Platforms for participatory strategy, design, and joint innovation workshops.	Digital tools operationalize the collaborative networks that underpin successful sustainable development strategies and enable cross-sectoral participation (Bass et al., 1995).	Miro, MURAL, digital co-creation platforms	Bass et al. (1995)
Compassion (Ethical grounding)	Channels for ethical feedback, psychological safety, and inclusive dialogue.	Fostering trust, well-being, and psychological safety is essential for high performance in virtual teams and ethical conduct, supported by structured digital feedback mechanisms (Qiao et al., 2024).	Culture Monkey, Lattice, dedicated feedback and engagement monitoring tools	Qiao et al. (2024)

As this mapping demonstrates, these tools are not mere utilities but essential infrastructure for instantiating the *Four Cs* in daily operations.

By integrating these digital mechanisms, we enable digital transformation to be co-owned across all levels of the organization. This helps create a culture of effective, sustainable leadership that develops the organizational agility and innovation capacity to address the inherent paradoxes of digitalization. Importantly, this leaderful approach, based on relational ethics, provides an essential counterbalance to the specific risks of digital transformation. It gives the human discretion needed

to address algorithmic bias in ESG scoring by ensuring that a diverse array of perspectives is included in system design (Qiao et al., 2024). It avoids resource overconsumption and waste from the accelerated uptake of technology, and actively engages in deconstructing new, potential technocratic hierarchies that could diminish employee power. By fostering psychological safety and embracing dialogue, relational leadership helps ensure that digital tools are leveraged with compassion and for the long term, where ethics is a practice, not a task (Cunliffe, 2011).

The actual usefulness of these leaderful principles is located in their capacity to engage the underlying paradoxes of digital transformation directly. Collectiveness, as embodied in shared ownership and open data availability, provides a necessary counterbalance to algorithmic bias in the development and management of AI systems by ensuring that a plurality of voices is given value. Collaboration is a direct counterbalance to the potential for 'green colonialism', as true co-creation with all stakeholders, including p.o.c. Communities secure fair benefits from transparency and ensure that local voices, rather than outsiders, take the lead. Lastly, Compassion, as the principle for ethical anchoring, addresses the potential for a widening digital divide by setting priorities for inclusivity and accessibility in the development of tools and ensuring that DT benefits society at large rather than deepening existing inequities (Mohaghegh et al., 2025).

Increasingly recognized as essential enablers of digital transformation (DT), both relational and leaderful models address the human and organizational components of change. The human component of relational leadership is so significant that the relational model shifts the focus from leadership as individual characteristics to leadership as a socially constructed process, highlighting social relationships. The reason is that adopting new technology is usually not a technological issue but a social/cultural one (Uhl-Bien, 2006).

The relational leader builds trust, encourages open dialogue, and promotes a collaborative climate to establish a collective belief and vision. In Leaderful Practice, the organization as a whole owns the transformation. As pointed out by Cortellazzo, Bruni, and Zampieri (2019), a central task is, “Build a Collaborative Vision: DT [Digital Transformation] requires breaking down silos” that relational leaders start, and that leaderful practice, “facilitates individuals at all levels engineering ideas so that the transformation process is something owned by the organization" (p. 12).

While relational leadership focuses on the trust and alignment needed for transformation, leaderful practice extends this logic by distributing leadership throughout the organization. Suppose digital

transformations are not just initiatives that begin and end at the top but ongoing, adaptive practices for all constituents of the organization. In that case, leaderful practice is critical as Raelin (2011) states, “leaderful practice calls for participation in leadership and decision making at all levels and in even multiple decision processes” (para. 3). This distributed approach is vital because it draws on the knowledge and creativity that exists at every level of the organization by essentially making the organization adaptive to emerging and shifting digital and sustainability contexts (Teece, 2018).

Organizational experience provides credible evidence for this viewpoint. Successful digital transformation programs rely on more than technology; they require “brave executive leadership prepared to navigate a systemic change effort, collaboration beyond any functional structure to tap all levels of the organization, and a corporate culture committed to real transformation” (Rockwell Automation, 2021). An approach that centers on people can help generate an exciting cycle of innovation and sustain benefits over time. Digital technology will equip this distributed leadership with the necessary data, connectivity, and infrastructure for mobilization, while relational practices will serve to focus the mobilization on shared ethical ends. To illustrate, Finland's reuse heat initiative demonstrates how digital systems can help teams across non-adjacent functional areas collaborate and innovate by shortening project timelines through simultaneous, decentralized decision-making (Mohaghegh et al., 2025).

Ultimately, integrating relational leadership and leaderful practice is not merely beneficial but also paramount for achieving a sustainable digital transformation. It is the essential frame that will ensure technology serves humanity, equity, and the planet, thus enabling organizations to close the Relational-Performance Gap and to truly metamorphose, like Westerman's metaphorical butterfly, into equitable, sustainable, and resilient organizations.

In reality, this leaderful-digital synthesis operates as a bi-directional mechanism. Digital tools support making the Four Cs scalable, verifiable, and efficient. At the same time, the Four Cs provide the ethical and social architecture to ensure tools are used compassionately, collaboratively, and collectively, thereby preventing their use for technocratic control. This is how we can intentionally and routinely close the Relational-Performance Gap.

3.5. Conclusion of the Chapter

In conclusion, we have shown in this chapter that Digital Transformation (DT) represents a significant socio-technical transformation that goes well beyond a simple technology upgrade. While we see that DT represents a tremendous opportunity to achieve radical efficiency, unprecedented transparency, and robust, sustainable performance, our inquiry shows that, at its core, DT is paradoxical.

The same tools that improve efficiency use up massive resources; the same algorithms that help optimize can hide and reinforce bias; and while platforms that facilitate worldwide exposure may also cause social disconnection and increased social inequalities. If ungoverned and left to build its own momentum, DT will automate old and entrenched ways of organizing and significantly amplify the Relational-Performance Gap.

The main idea and counterstrategy put forth here is the specific joining of Relational Leadership Theory (RLT) and the prescriptive Leadership Framework (L-A-P). The Four Cs—Collective, Concurrent, Collaborative, and Compassionate—represent the vital human architecture tasked with guiding powerful digital capacities for regenerative purposes. They change technology from a potential driver of centralized control to an actual enabler of distributed agency, fundamentally critiquing the risks of technocratic leadership.

One significant revelation from this study is the understanding that these leaderful patterns are not new structures imposed upon groups of people; instead, they represent the natural, and often informal, relational strengths that already, to varying degrees, bring resilience to many organizations, with a particular focus on flexible SMEs. So, creating these capabilities is not the issue; rather, it is formalizing and refining them to achieve institutional legitimacy. As shown in this chapter, digital tools enable this shift: they provide the structure to codify and make explicit innate collaborative capabilities, the platforms to amplify concurrent efforts, and the verifiable data to allow visibility and auditability of their contributions.

Thus, the influential differentiator is the human architecture of Leaderful Practice. It recasts external compliance requirements as strategic advantages that reinforce an organization's core competencies. Eventually, this multilayered leaderful-digital coherence receives the scaffolding needed to close the Relational-Performance Gap between the formal, compliant digital meeting place that organizations have evolved to adopt and the more-than-formal, informal relational

performance capability that the organization seeks to engage. This enables the transformation of the so-called really fast caterpillar of Westerman - a machine purposely built for speed but anchored within the fast paradigm of thinking of a bygone time - evolves into a butterfly: a stable object whose formal ESG results show the embodied relational potential and engaged ability to accept the challenges of flight, sustainably.

In the end, this leaderful-digital synthesis provides the necessary scaffolding to bridge the *Relational-Performance Gap*, allowing for a form that is a 'really fast caterpillar'—a being that is optimized for speed, but constrained by that structure to a 'butterfly', a resilient being whose formal ESG outcomes truly reflect its inherent relational capacity and adaptability. While it accomplishes that end, the synthesis of these components highlights a need for a global model. With the individual elements defined: the problem of the Gap was established (Chapter 2), the prescriptive solution of Leaderful Practice was he Regulatory Imperative defined (Chapter 1), and the enabling lever of Digital Transformation was established (Chapter 3), the following chapter will integrate these elements into a unified Relational Integrated Bridge model, providing a systematic path to achieving sustainable performance.

CHAPTER 4
LEADERSHIP, TECHNOLOGY, AND SUSTAINABLE PERFORMANCE

4.1. Introduction of the chapter

The 21st-century paradox of global capitalism, in which unparalleled wealth undermines the socio-ecological systems on which it depends (Klein, 2014; Piketty, 2022; Rockström et al., 2023), demands a radical rethinking of organizational leadership. This chapter argues that the solution lies not in imposing new models, but in activating a latent one: the organic, relational leadership inherent in Small and Medium Enterprises (SMEs).

This is a complex problem, and a pivotal question that arises is where to focus efforts to find a solution. The answer lies in recognizing relational leadership as an often-preexisting, though informal, organizational dynamic. The framework of leaderful practice provides intentional design to these innate elements, activating pre-existing relational capacity through its tenets of concurrency, collectiveness, collaboration, and compassion, offering an interactive platform that completely transforms the paradigm (Uhl-Bien, 2006; Raelin, 2011). Furthermore, the interconnectedness of this relational infrastructure is the foundation of sustainable performance, fostering trust, collaboration, and communication across boundaries and helping resolve complex sustainability issues (Maak & Pless, 2006). Digital transformation provides the architectural framework to capture, scale, and formalize these organic leadership practices into measurable ESG and reporting outcomes, and ignite disruptive change in achieving sustainability (Vial, 2019)

As noted in the preceding literature review, small and medium-sized companies account for nearly 90% of the commercial sector, and integrating the two theories—Relational and Leaderful Practices—is not only desirable but also mandatory. Their agility and strong community ties suggest they are not just participants, but active co-creators of sustainability frameworks. However, they might be the first initiators of innovative, disruptive ways of conducting business. This point is emphasized in the literature on ESG reporting, which indicates that SMEs face unique barriers, particularly financial and knowledge barriers, that larger firms do not encounter; thus, different frameworks and strategic guidance are required (Setyaningsih, Rahmatullah, & Nurdin,

2024). These strands are addressed in this chapter both individually and within an integrated paradigm. This study positions Relational Leadership and Leaderful Practice not as distinct theories, but as interconnected concepts. Relational Leadership provides the foundational social framework, while Leaderful Practice describes its active manifestation through co-creation and relationship-building. When this framework is activated through its four tenets—concurrency, collectiveness, collaboration, and compassion- it creates a relational style that promotes collaborative, empathetic, and collective actions. Given the natural phenomenon of such emergence in SMEs, where there is no formal structure and no strict adherence to ESG frameworks, a collaborative, relational aspect of Leadership remains necessary to achieve sustainable outcomes organically.

In essence, Leaderful Practice (Raelin, 2011) is not an autonomous behavior pattern but rather the active, behavioral expression of Relational Leadership (Uhl-Bien, 2006). Relational Leadership provides the theoretical underpinning of the leadership process as a social system, while Leaderful Practice explains it at the functional level. It results in a state of organic Leadership where power and initiative are distributed and actioned through group discussion, rather than being dictated by top Leadership. This inherent, frequently informal, style is proposed as the driving force of sustainability in SMEs, providing an ethical framework and a cooperative platform through which the much-needed change can be realized. To strengthen the impact of these theories, moreover, it is assumed that the main task of Digital Transformation is not to build this Leadership style, but to enhance and strengthen the existing relational capacity.

A digital solution offers the capability to extend its principles, democratize data, and convert sustainable ambitions into a quantifiable, competitive response.

4.2. The Relationship between Relational Leadership, Technology, and Sustainable Performance

To resolve this paradox, it is not sufficient to implement incremental sustainability reforms; instead, a fundamental transformation is necessary in how organizations perceive value creation and leadership. This change should be inherently humanistic. This prerequisite is provided by Relational Leadership and Leaderful Practice, which reverses the paradigm of individual and heroic leadership by offering active processes of making sense together, shared responsibility, and ethical co-creation (Uhl-Bien, 2006; Raelin, 2011). This relational infrastructure that is

operationalized through concurrency, collectiveness, collaboration and compassion is not an add-on, but rather a core aspect of the initiative that develops the trust, psychological safety, collaboration and cross-boundary conversation necessary to manage the sustainability challenge of wicked problems and act in response with transformative impact more than compliance (Maak et al., 2017; Pless, 2006).

Nevertheless, intent must be capable of execution. Digital Transformation (DT) is a primary force that can introduce significant shifts in sustainability using real-time energy optimization, ethical supply chain verification, and automated ESG accounting (George et al., 2021; Vial, 2019). Technology alone is not the ultimate solution; it must be embedded within an organizational framework that encourages continuous learning, ethical consideration, and alignment with overall strategic goals. Anthonysamy, L. A./P., Siddika, A., & Aqlily, N. R. (2025). Undoubtedly, technology helps managers and employees in decision-making processes (through tools such as digital platforms, data analytics, artificial intelligence, IoT, blockchain, etc.). The ability to monitor the achievement of sustainability-oriented objectives is facilitated by technology, which enables communication (through tools such as social networks, Microsoft Teams, and Google Meet) and the real-time exchange of information between managers and employees.

This highlights a vital lesson: technology alone will not lead to sustainability. The culture of leadership determines whether DT will be an impediment to or a promoter of sustainable performance, a key aspect of the human system. This two-way relationship is keen, strong, and reciprocal, and can only be understood not as an abstract reality, but as a lived reality. Consider a small and sustainable clothing manufacturer that aims to improve its ethical sourcing (SDG 12) and empower its workers (SDG 8):

- *Scenario A (The Leadership Compass):* Driven by a leaderful culture, employees from design, procurement, and marketing form a voluntary "Ethical Sourcing Pod." In a psychologically safe environment, a junior designer feels empowered to suggest auditing a new supplier for fair labor practices, demonstrating concurrency and compassion.
- *Scenario B (The Digital Engine):* This initiative is amplified by digital tools. The pod uses a cloud-based platform to share supplier details and audit reports, a blockchain tool for transparent certification verification, and built-in analytics for collaborative data analysis.

- *The Reciprocal Outcome:* The leaderful practice identified the opportunity and fostered the initiative. The digital tools provided the means to execute it efficiently and transparently. The successful audit improves ESG performance, is integrated into sustainability reporting, and reinforces a culture of shared responsibility. This demonstrates the core virtuous cycle of our framework: Leaderful Practice enables the effective use of technology, and digital tools, in turn, reinforce and scale leaderful behaviors

4.3. Identifying the Research Gap

Despite the increasing scholarly attention devoted to relational leadership (Uhl-Bien, 2006; Cunliffe & Eriksen, 2011) and leaderful practice (Raelin, 2003, 2011), digital transformation (Vial, 2019; Sebastian et al., 2017), and sustainability reporting/ESG and SDGs performance (Eccles & Serafeim, 2020; UN Global Compact, 2022; Metzker et al., 2021; Alonso-Almeida et al., 2015) the intersection of these elements particularly in the context of sustainability in small and medium-sized enterprises (SMEs) remains conspicuously underexplored.

While each of these three strands is meaningful, in the literature, they are treated separately and do not provide insight into their interactions. There is a "blind spot" that should be critical in interpreting the interaction when examining the mutual relationship between a specific form of decisive leadership and digital transformation, specifically in SME contexts. The existing scholarship, while acknowledging the importance of relational leadership, contains a significant conceptual gap: it fails to recognize that SMEs already possess innate relational leadership capacities that require intentional activation through digital architecture to achieve formal ESG outcomes. This is an organic form of leadership where concurrency, collaboration, and compassion are innate, relational expressions rather than separate behaviors.

This chapter addresses this gap by proposing that Digital Transformation (DT) serves as the essential architectural framework for capturing, scaling, and formalizing these innate, leaderful practices, transforming them from informal relational energy into measurable, competitive ESG outcomes**.** There is a pronounced inconsistency between the focus on formal leadership systems alone and the informal, relational behaviors that produce lasting performance in SMEs. This chapter aims to address that gap by introducing an original model that articulates this organic relationship. This model posits that digital transformation does not create leadership but instead

activates pre-existing, organic, relational, and leaderful behaviors to systematically bridge the Relational-Performance Gap.

4.4. The Conceptual Framework: Research Questions and Working Hypotheses

The preceding analysis reveals an important gap in the literature. Indeed, the overlap between a relationally unified and leaderful leadership style and digital transformation has been extensively studied yet is still largely ignored within the SME literature. This gap also represents an experiential failure to understand how most businesses worldwide can contribute to a more sustainable future, as outlined in the SDGs.

This chapter introduces a new conceptual framework to address this gap. Drawing on the normative basis of the Sustainable Development Goals (SDGs), this framework explicitly links the *'what'* of sustainability—measured through ESG performance—to the *'how'*—enabled by relational leadership and digital transformation, providing a coherent model for resource-constrained small and medium-sized enterprises (SMEs). Importantly, the framework frames SMEs not as passive recipients of sustainability agendas but as active agents of the SDG agenda. In this way, it proposes a new model of sustainable transformation that is relational, technology-enabled, and grounded in the practices and experiences of businesses that underpin the global economy.

The distinctive quality of this approach is its integration of the intrinsic elements of relational leadership—operationalized as leaderful practices—with digital transformation. This specific synthesis addresses a critical gap in the literature and has significant potential to advance both sustainability theory and practice in the SME sector. The research questions and hypotheses that follow represent steps derived from this proposed conceptual model, which posits that this relational infrastructure lays the fundamental groundwork for embedding digital sustainability.

The research is structured around the following questions and hypotheses:

RQ1: What can a relational leadership theory and leaderful practice lens reveal about how Small and Medium Enterprises (SMEs) implement and share Environmental, Social, and Governance (ESG) measures, through digital transformation, for achieving Sustainable Development Goals (SDGs)?

RQ2: How does leaderful practice, characterised by collaboration, collectiveness, concurrency of action, and compassion, influence ESG Performance shown in sustainability reporting in SMEs?

RQ3: How do leaderful practice dynamics and digital transformation influence one another in the context of implementing and sharing ESG measures for SDG achievement in SMEs?

These questions are operationalised through the following working hypotheses:

H1: Relational Leadership and leaderful practices positively influence the capacity to embed and disseminate ESG measures and support alignment with SDG targets.

H2: A reciprocal relationship exists between leaderful practices and digital transformation, whereby leaderful practices facilitate digital adoption, and digitally enabled systems reinforce inclusive, collective, concurrent, and compassionate leadership behaviors

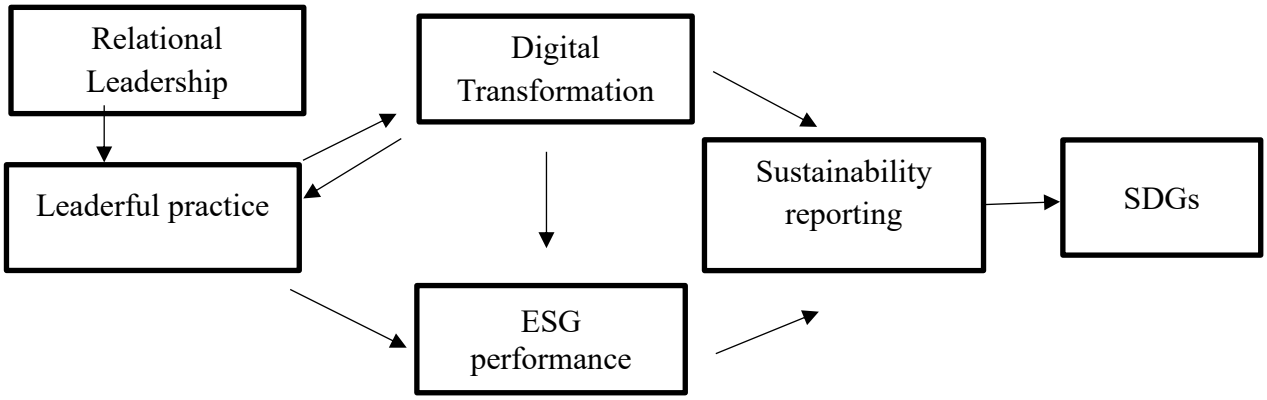
H3: Leaderful practice, by institutionalizing collaboration and shared responsibility, improves the completeness, transparency, and stakeholder credibility of SME sustainability reporting (that shows ESG performance toward achieving SDGs).

These hypotheses will be evaluated empirically using a sequential explanatory mixed-methods design (QUAN → qual), detailed in Chapter 5. This methodological choice allows for both a statistical test of the proposed relationships and a qualitative exploration of the 'how' and 'why' behind them. This unique perspective aligns with the research problem because it incorporates both the statistical test of the proposed relationships (i.e., RLEP and LDEP predicting SR via regression analysis) and a qualitative follow-up of the 'how' and 'why' underlying the reciprocal dynamics described in the conceptual framework. This relationship is visualized in the following integrated model (Fig. 4.1), which positions Relational Leadership as the foundation and digital transformation as the catalyst for sustainable performance.

In essence, this conceptual framework suggests that the organically integrated relational and leaderful practices, enacted through the four conditions of collectiveness, concurrency, collaboration, and compassion, collectively assist the social-relational infrastructure required for digital sustainability to flourish. This infrastructure develops psychological safety, distributed agency, and shared purpose, enabling sustainability to flourish organically. However, to translate this organic potential into a measurable, competitive outcome, intentional design is required.

Digital transformation offers this design and acts as the essential catalyst to capture, scale, and quantify these relational values.

Figure 4.1: The Integrated Model for SME Sustainable Transformation



Source: Developed by Franzoni S., Palermo O., Naseem A.

In SME settings where formalized structures for ESG initiatives are often not established, this combination of organic leadership alongside intentional digital design is not only preferable but also necessary. The framework, therefore, adds to the dominant paradigm in sustainability research, which focuses on large corporations with complex compliance architectures. It devises an alternative, qualitatively grounded, SME-centered model of sustainable transformation. Empirically, this framework can be understood as a model for bridging the Relational-Performance Gap, a dynamic process that the findings of this study will elucidate

4.5. Conclusion to the chapter

In addressing the 21st-century paradox outlined at the outset, this chapter has critically explored the dynamic relationship between leadership, digital transformation, and sustainable performance, proposing a new conceptual framework to understand them as interdependent drivers. Instead of treating them as separate, the framework illustrates how their interconnectedness positions SMEs to contribute to the Sustainable Development Goals (SDGs) in meaningful ways.

On the foundation of relational leadership theory and practices derived from a leaderful conception of collective and shared leadership, this chapter emphasizes that fundamental sustainability transformation is ultimately a social and ethical process that occurs through quality relationships,

distributed agency, and collective adherence to shared commitments and values for future communal and personal aspirations. Without these relational qualities, people lack the social infrastructure that promotes inclusive decision-making, ethical responsiveness, and collaboration across boundaries, essential capacities for engaging with the complex, multi-stakeholder landscape of the SDGs.

These relational capacities are essential for SMEs, where formal governance structures are either absent or limited. They are the most significant internal force for creating sustainable change within an organization's ecosystem. Digital transformation serves as the catalyst that enables sustainability ambitions to be translated into measurable metrics and operational actions. The range of technologies (AI, blockchain, cloud analytics, digital communication platforms, etc.) does not simply improve efficiency; they enable shifts in leadership practice, with increased transparency, the democratization of data access, and new methods of stakeholder engagement that transcend traditional boundaries. Nonetheless, the introduction of technology is neither neutral nor deterministic. Indeed, its effectiveness relies on the ethical perspective and the leader's promotive capacity. In effect, a mutually constitutive relationship emerges: relational leadership directs digital transformation toward ethical outcomes, and digital systems serve to extend the reach and impact of relational practices, thereby reinforcing cultures of openness and shared accountability.

Notable challenges persist, including techno-solutionist perspectives, digital divides, and limited digital literacy in many SMEs. These challenges underscore the ongoing need to humanize the adoption of technology through context-sensitive, human-centered leadership practices that balance technological innovation with social and environmental justice.

Small- to medium-sized enterprises (SMEs) occupy a complex and ambiguous position in the sustainability landscape. While they are generally resource-constrained compared to larger companies, their embeddedness in social networks, combined with relationally grounded leadership, can provide them with a reflexive and unique position for mobilizing ESG (Environmental, Social, and Governance) and SDG (Sustainable Development Goals) commitments at a very local and transformational level. The framework positions SMEs not as leadership-deficient organizations, but as relationally rich environments that require intentional design to transform organic leadership into measurable sustainability performance.

As a result, this chapter highlights an urgent research challenge: the empirical exploration of relational leadership and leaderful practices that empower SMEs and facilitate their engagement in digital transformation, leading to legitimate, embedded, and measurable sustainability outcomes and thereby translating internal ESG performance into tangible contributions to the SDGs**.** This framework will be examined through a cross-cultural comparison of Italian and Pakistani SMEs, enabling the identification of culturally contingent implementation pathways. The methodological framework presented in the next chapter is designed to address this challenge through a mixed-methods approach. It will examine the listed SMEs in Italy and Pakistan. In the end, this framework modifies the sustainability problem facing SMEs. It is not about taking templates from the outside in; it is about consciously designing the organization's own relational capital, using digital tools, to close the Relational Performance Gap systematically. The next chapter describes the methodology for conducting an empirical investigation of this proposition.

CHAPTER 5
RESEARCH METHODOLOGY

5.1 Introduction to the Chapter

This chapter presents the methodology used to empirically investigate the interrelated dimensions of relational leadership, leaderful practices, digital transformation (DT), and sustainable performance in listed SMEs, and to test the conceptual framework developed in Chapter 4. The model asserts that organic, relational, leaderful practices contribute to genuine ESG- and SDG-informed digital transformation, over and above the conventional and top-down, compliance-oriented sustainability model. This chapter explains the research philosophy, design, and research methods used to investigate these complex interrelationships in the specific contexts of the Pakistani and Italian listed SMEs.

These complex interactions were investigated using a sequential explanatory mixed-methods design (QUAN → qual) (Ivankova, Creswell, and Stick, 2006). The study followed two phases in this design: during the first phase, a quantitative survey was used to determine overall trends and correlations among SMEs in Italy and Pakistan; the second phase involved in-depth, semi-structured interviews. The primary logic for this sequential approach was to use the qualitative findings to explain and contextualize the initial quantitative results. This integration of both phases occurred at the interpretation stage, where insights from the qualitative findings were used to explain and contextualize the statistical patterns identified in the quantitative phase. This research approach was appropriate for the research goals because it allowed for determining the general relationships and then for exploring the underlying processes and mechanisms that produce them.

This methodological approach was grounded in a pragmatist research philosophy, which prioritizes problem-solving and emphasizes actionable outcomes relevant to the research questions (Tashakkori & Teddlie, 2010; Morgan, 2007). Pragmatism proved especially pertinent in applied management research, where addressing complex practical issues requires integrating objective measurement with subjective interpretation (Saunders, Lewis, & Thornhill, 2019). This philosophy was therefore ideally suited to the present study, which sought not only to identify statistical

relationships but to generate practical, contextually nuanced insights for SME leaders and policymakers.

The chapter outlines the research design, the sampling method for selecting firms for the study, and the data collection tools, including a structured questionnaire and a semi-structured interview protocol, that were generated from the primary constructs (Bell et al., 2022).

It then describes the data analysis conducted, in which quantitative data were subjected to a statistical test and qualitative data were analysed using thematic analysis (Braun & Clarke, 2006)—a combination of these methodological strands aimed to provide a detailed and complex answer to the research questions. Lastly, the chapter specifies the strategies adopted to ensure the validity, reliability, and overall scholarly credibility of the study (Flick, 2018; Lincoln & Guba, 1985).

Table 5.1: Sequential Explanatory Mixed-Methods Research Design

Phase	Description	Outcome
Quantitative Phase	Structured survey with listed SMEs in Italy and Pakistan	Statistical relationships, hypothesis testing
Integration Step	Identify participants for interviews based on survey results	Purposeful case selection
Qualitative Phase	Semi-structured interviews	Explanations of "how" and "why" patterns occur
Interpretation	Integrating QUAN + qual insights	Holistic and contextualized findings

Source: Sequential Explanatory Mixed-Methods Research Design *(Adapted from Ivankova, Creswell, & Stick, 2006)*

5.2 Methodological Approach: Qualitative and Quantitative

Given the complex characteristics of relational leadership, digital transformation, and sustainable performance, the methodological strategy should encompass differentiating broad statistical generalizations from nuanced understanding at the contextual level. Thus, a mixed-methods approach was employed as it addresses the limitations of a single-methodological approach (Creswell & Plano Clark, 2018). The mixed-method approach relied on the sequential explanatory design described by Ivankova et al. (2006). This approach is critical when exploring nuances in narratives and practices, as it permits a deeper investigation of social realities that could otherwise be overlooked, especially when not using survey-based methodologies (Raelin, 2011; Braun & Clarke, 2006), like when exploring collective leadership in SMEs (Lehtonen et al., 2022).

Nevertheless, qualitative research is frequently criticized for its generalizability and for relying on subjective sources as a basis for reliability and bias control. In comparison, quantitative approaches offer greater generalizability, statistical power, and the ability to test theoretical relationships with larger samples. Enacting generalizable relationships, not least of which are individual and organizational practices of digital transformation and their sustainability outcome construct (Saunders, Lewis & Thornhill, 2019). One of its most significant weaknesses, however, is that quantitative designs often distill nuanced behavioral and social practices processes into quantifiable variables, losing some of the contextual richness (Bryman, 2016).

The complementary weaknesses are addressed through a mixed-methods approach that combines the richness of qualitative inquiry with the scope of quantitative investigation. This integration proved particularly valuable for examining the culturally contingent pathways between Italian and Pakistani SMEs, where statistical patterns required a qualitative explanation of underlying mechanisms. This integrative methodology increases validity and provides a more holistic account of the complexity of the interaction between relational leadership and sustainability in SMEs through triangulation (Fetters, Curry, and Creswell, 2013). Admittedly, this technique is laborious and requires an unusual level of care in design and analysis to ensure that datasets are harmonized (Creswell & Plano Clark, 2018).

The researchers chose the sequential explanatory design (QUAN → qual) because it involved statistical verification of hypothesized relationships and contextual insight into how these relationships differed across cultures (Ivankova, Creswell, & Stick, 2006). A preliminary quantitative survey yielded an overall "snapshot" of general trends and correlations across a large sample. The subsequent qualitative study was then designed to explore the underlying mechanisms and contextual factors that explained the statistical patterns. This overarching chronology enabled the study to first situate itself within the temporal phase of existence from the point of view of "what is," followed by an exploration of "how" and "why" it is so without needing to explicate multifarious social and organizational interactions.

The quantitative study component tested the three hypotheses presented in Chapter 4 to examine the interrelation among relational leadership, digital transformation as a factor in ESG, and sustainability reporting among SMEs in Italy and Pakistan. To enhance the rigor of the methodology, several strategies were employed. The comparative analysis across cultures required

methodological sensitivity to ensure measurement equivalence and to capture the local and contextualized dimensions of relational leadership. For the quantitative phase of the study, the data showed high reliability, with Cronbach's alpha coefficients ranging from 0.85 to 0.92 across all constructs, exceeding the recommended 0.70. For the qualitative phase of the study, the research design incorporated triangulation, member validation, and audit trail - all methods of ensuring credibility, transferability, dependability, and confirmability (Lincoln & Guba, 1985) of the findings. This methodological framework is designed to empirically investigate the 'Relational-Performance Gap' theorized in Chapter 4. The quantitative phase assesses the *existence* and *strength* of relationships among the constructs, while the qualitative phase explores the *underlying mechanisms* that either bridge or perpetuate this gap.

5.3 Research context

Taking advantage of the established institutional and economic differences between a developed economy in Europe and an emerging market in Asia, this paper conducted a strategic comparison of publicly listed SMEs in Italy and Pakistan, which revealed contextually relevant variations in the relationship of interest. The sample of publicly listed SMEs provided substantial methodological advantages, namely alignment of disclosure regulations, ensuring equal exposure to rigorous and trustworthy information, and strong triangulation across the two global settings. To maintain methodological consistency, the same measures were used, with harmonized definitions of SMEs in each context based on the European Commission (2020) in Italy and the State Bank of Pakistan (2023), which also applies the same measures. A universal filter was applied, limiting market capitalization to less than 500 million euros, to ensure that the listed companies on the Borsa Italiana and the Pakistan Stock Exchange were comparable (CONSOB/EURONEXT MILAN, 2024; PSX, 2024).

Because of the unique regulatory contexts and operating models of financial institutions, these cases were excluded to focus on operational behaviors of SMEs rather than financial models of operational behavior. Data from offline or online surveys, sourced from the identified non-financial operational behavioral cases, were sought in the two contexts to further prepare for the findings, unconfounded by the limitations of those cases in their respective contexts. In the Italian context, the participating firms represented a diverse group of industrial manufacturing, consumer goods, technology services, and renewable energy sectors. Similarly, the sample in the Pakistani context

included firms operating in the textile, industrial manufacturing, food processing, and basic materials sectors. This sectoral diversity was intentional, allowing the study to examine whether the core relationships held across different industries. It also acknowledged that the manifestation of relational leadership and its interaction with digital tools might vary according to distinct sectoral and institutional logics.

5.4 Data Collection Tools

In the quantitative phase, a structured survey was delivered to 97 SMEs based in Italy and Pakistan. With the new integrated conceptual framework in mind, the central constructs of Relational Leadership and ESG Performance (RLEP), Leadership, Digital Transformation and ESG Performance (LDEP), and Sustainability Reporting (SR) were evaluated using custom-developed, validated scales. Scale development was conducted rigorously and in accordance with established psychometric guidelines (Hinkins, 1995), with instruments that drew on Relational Leadership Theory (Uhl-Bien, 2006), Leaderful Practice (Raelin, 2011), digital maturity frameworks, and ESG/SDG reporting language. Content validity was established through an expert panel review (Grant & Osanloo, 2014), and construct validity was assessed using exploratory and confirmatory factor analyses (EFAs and CFAs). Consistency among the measures was established using Cronbach's α coefficients (0.85-0.92) across all scales, indicating excellent reliability for conducting cross-cultural comparisons. Comparability of survey instruments was established through formal translation followed by back-translation (Beaton et al., 2000), and statistical measurement invariance testing (Byrne, 2016) was conducted to compare study samples between Italian and Pakistani participants to ascertain conceptual equivalence.

In the qualitative phase, semi-structured interviews were conducted with SME managers and selected key staff from the matched sample of four SMEs in Italy and four in Pakistan. Prompted by the initial quantitative findings, the qualitative protocol aimed to collect detailed contextual information and provide explanations for the mechanisms that produced the statistical propensity patterns. This sought to retain some of the adaptive qualities of qualitative research whilst also exploring how the intentional design of relational and digital practices had a specific impact on the two case organizations producing ESG outcomes, in the context of culturally distinctive and dissimilar institutional contexts in the two countries. The qualitative data were then analyzed thematically to ensure they were systematically consistent and rigorous, following Braun and

Clarke's (2006) systematic six-phase process for accurately identifying and coding (theoretically relevant) core themes related to leaderful practices. Also, document analysis included sustainability reports, internal communications, and usage guidelines for the digital platforms of participating SMEs. This provided objective secondary data to triangulate self-report measures, especially regarding the actual ESG implementation and the use of digital tools.

The quantitative analyses were performed in IBM SPSS Statistics. They involved three steps: instrument validation, which included reliability (Cronbach's α) and validity (EFA/CFA) to confirm the psychometric qualities of the author-developed scales; comparative statistics, which included independent samples t-tests to identify statistically significant mean differences in core constructs between the Italian and Pakistani samples; and hypothesis testing, utilizing multiple linear regression to understand the strength and direction of the predictive relationships among relational capacity, digital transformation, and ESG performance.

5.5 The Latent Variable Method: Theoretical Rationale and Application

To study the nuanced, fluid relationship captured in the research questions and hypotheses, the Latent Variable Method was used, in which a latent variable is defined as a theoretical construct that cannot be measured directly but must be inferred from a set of observable indicators (Bollen, 1989). In this research, all key theoretical constructs—Relational Leadership and Leaderful Practices (RLEP), Leadership-Driven Digital Effectiveness (LDEP), and Sustainability Reporting (SR)—are essentially latent. Constructs such as 'collaboration,' 'concurrency,' and 'compassion' are complex and represent multiple, varied perceptions, and were operationalized with multi-item scales to capture the full range of the theoretical constructs.

This methodology reduced and provided a means to disaggregate measurement error assessment from constructs. Each of the three constructs was measured using multi-item scales (RLEP: 14 items; LDEP: 6 items; SR: 9 items) to achieve the score, with consideration of measurement error, with Cronbach's α measurement (all $\alpha \geq 0.85$), which supported both theoretical coherence and internal consistency of the scales I developed.

To develop robust measures for the new integrated conceptual model, the analysis adopted a more rigorous validation approach. First, reliability analysis was conducted to confirm the internal consistency of the multi-item scales, with all constructs showing high internal consistency (α = 0.85-0.92). After validation, composite scores for each construct in the integrated conceptual

model were derived from the eight validated multi-item sub-scales and used in multiple linear regression analyses to assess predictive relationships (H1 and H3). This method of establishing analyses using validated measures is accepted in exploratory research (Hair et al., 2017).

For establishing a valid cross-cultural analysis, the Latent Variable Method was essential. The very similar Cronbach's α coefficients across countries strongly supported measurement equivalence, indicating the constructs could be reliably interpreted within both cultures. This validation process provided confidence that the observed differences were attributable to cultural contexts rather than measurement issues.

Table 5.2: Operationalization of Key Constructs

Construct	Abbreviation	No. of Items	Measurement Scale & Anchors	Sample Items (Reflecting the 4C Framework)	Source (Adapted from)
Relational Leadership & ESG Performance	RLEP	14	5-point Likert Scale (1=Strongly Disagree to 5=Strongly Agree)	**Collective:** "Employees feel collectively responsible for achieving ESG performance." • **Concurrent:** "The actions of different teams are aligned on ESG goals." • **Collaborative:** "Our leaders encourage cross-departmental collaboration on sustainability goals." • **Compassionate:** "Our firm integrates ethical considerations into its ESG efforts.	Raelin (2016); Eccles et al. (2014)
Leadership & Digital Transformation for ESG	LDEP	6	5-point Likert Scale (1=Not Implemented to 5=Fully Implemented)	"We use digital tools to track our environmental impact." "Leadership champions the use of technology for ESG reporting."	Westerman et al. (2014)
Sustainability Reporting (ESG & SDGs)	SR	9	5-point Likert Scale (1=Poor to 5=Excellent)	"Our company comprehensively reports on UN SDG contributions." "We clearly disclose our governance structure in sustainability reports."	Global Reporting Initiative (GRI), 2021; United Nations, 2015 SDG Framework

Source: Adapted from Raelin (2016); Westerman, Bonnet, & McAfee (2014); Eccles, Ioannou, & Serafeim (2014); Radu, Dragomir, & Ionescu-Feleagă (2023)

5.6 Data Collection and Analysis Implementation

The survey was distributed online via Google Forms to 262 selected SMEs in Italy and Pakistan. The study employed several proactive strategies to prevent bias, including analyzing differences between early and late respondents to assess non-response bias (Armstrong & Overton, 1977) and varying the scale format to reduce common method bias. The data were analyzed using IBM SPSS Statistics, with each of the following stages taking place: descriptive statistics provided measures of the socio-demographic descriptors of the sample; the reliability analysis was performed to establish internal consistency with all constructs above the threshold ($\alpha \geq 0.70$); independent samples t-tests examined cross-cultural differences; bivariate correlation analyses investigated relationships between constructs; and, multiple regression analysis analyzed outcomes for each hypothesis for RLEP and LDEP as independent variables that predicted SR.

The following qualitative phase involved semi-structured interviews with a purposively selected group of four Italian and four Pakistani SMEs. This phase provided a deeper understanding of the "how" and "why" of the statistical patterns, with participants chosen to offer varied quantitative profiles (e.g., positive outliers, paradoxical cases) to provide contextual detail. Additionally, systematic documentary analysis contributed to primary data, as the researcher reviewed sustainability reports, internal communications, and corporate websites. The documentary analysis of public companies, in particular, provided objective evidence to triangulate self-reported data and greatly enhanced the credibility of the findings.

5.7 Selection of Companies for Analysis

The sampling strategy for this study was carefully developed to conform to a sequential explanatory mixed-methods design comprising two phases, each representing a different research objective.

The quantitative phase implemented a census strategy to obtain external validity and provide evidence of generalizable patterns. The study included all firms listed on the Borsa Italiana and the Pakistan Stock Exchange (PSX) that met the harmonized SME definition, i.e., a market capitalization of less than €500 million, as detailed in Section 5.2. The sampling frames were constructed systematically by developing master lists of firms from each exchange, applying the market capitalization screening, and excluding financial institutions due to their significantly different operational regulations and models. The questionnaire was sent to the entire eligible

population to ascertain broad patterns and relationships. The final sample of N=97 provides robust statistical power for the planned analyses, aligning with methodological recommendations for specialized organizational populations (Hair et al., 2019).

Table 5.3: Sampling Frame of Eligible Listed SMEs in Italy and Pakistan

Country	Source	SME Definition Applied	Estimated Eligible Firms	Inclusion Status
Italy	Borsa Italiana	<250 employees, turnover ≤ €50M, market cap < €500M	126	Included
Pakistan	Pakistan Stock Exchange (PSX)	Market cap < €500M + State Bank SME criteria	136	Included
Both Countries	Financial institutions	—	—	Excluded

For the qualitative phase, a purposive sampling strategy was utilized to select information-rich cases for further analysis. The qualitative phase aligned with the explanatory nature of the second phase, which sought analytical generalization, rather than statistical generalization. The study selected four Italian and four Pakistani SMEs for a matched-comparative analysis of semi-structured interviews with important SME managers and staff. Companies were deliberately selected based on quantitative patterns: high performers and strong relational leadership in relation to sustainability outcomes; paradoxical, high-digital-adoption practitioners who did not report their sustainability policies or practices; and matched, cross-cultural patterns among similarly sized firms from Pakistan and Italy.

The qualitative analysis used manual comparative thematic analysis (Braun & Clarke, 2006), focusing on three main groups of participants: SME leadership teams (owners and department heads responsible for initiating and implementing sustainability), the operational teams involved in everyday ESG and digital transformation activities, and cross-functional participants, who could represent their departments, to capture a range of perspectives. The qualitative analysis process included four components. First, thematic mapping through systematic coding of interview transcripts. Second, simultaneous analysis of Italian and Pakistani cases. Third, triangulation among document analysis, quantitative data, and other sources. Fourth, focused attention on "how" and "why" the statistical trends noticed in the first phase happened. This strategy ensured that the qualitative data provided direct explanations of the quantitative findings that mattered most, while

the sample of eight cases provided sufficient analytical breadth across important organizational profiles and robustness for cross-cultural comparison.

Companies were deliberately selected based on the following criteria to ensure information-rich cases for the matched-comparative analysis:

- Matched Pairs**:** Four Italian and four Pakistani SMEs to enable a controlled cross-cultural comparison.
- Sector Alignment**:** All from manufacturing/industrial services to control for industry-specific effects.
- Diverse Quantitative Profiles: Selected to represent a range of scores from the survey (e.g., high performers on RLEP/SR, cases with high LDEP but low SR, etc.) to capture varied experiences and explanatory insights.
- Data Richness: Firms whose representatives provided detailed, rich responses in the initial survey, indicating willingness to engage deeply.

5.8 Ethical Considerations

This project adhered to the University of Brescia's ethics policy and all applicable national regulations in both Italy and Pakistan. Participants in the research were volunteers who gave informed consent after being given thorough information regarding the study's purpose and their rights regarding their participation, including the freedom to withdraw from participation at any time without penalty.

The project ensured strict confidentiality: no identifiable information was collected from participants, and data were stored on encrypted university servers with access regulated by the research team. The research received ethical clearance prior to fieldwork and therefore complied with GDPR regarding European data subjects and fulfilled Pakistani data protection requirements.

In the case of qualitative interviews, participants were provided with complete information about how their data would be handled. In document analysis, the project used only publicly available materials or permitted the analysis of organizational documents only after obtaining written consent from the respective organization. Cross-cultural ethical sensitivity guided our reactions to different organizational norms associated with intra-organizational communication. In all forms

of data analysis and dissemination, we concealed the identities of organizations to preserve participant confidentiality.

5.9 Conclusion of the Chapter

This chapter presented the methodological framework for generating empirical evidence to investigate the relationships among relational leadership, digital transformation, and sustainable performance in SMEs. This was in the context of a pragmatic philosophy. The research employed a sequential explanatory mixed-methods design (quan → qual), which enabled the identification of general patterns across large populations of SMEs in Italy and Pakistan, as well as the qualitative inquiry into those patterns.

The research design incorporates several robustness checks to ensure the validity of the findings. These pertinent features included: integrated proxy selection criteria, which included a benchmark of minimum market capitalization to enable meaningful cross-country comparisons, across diverse non-financial industries to prevent findings from being overgeneralized to a singular empirical setting, and triangulation of data from three sources – structured survey, semi-structured interview, and document analysis - to improve the validity and reliability of findings.

The analytical plan used quantitative statistical analysis, namely correlation and regression, via SPSS, and qualitative thematic analysis, to generate results that are meaningful and statistically significant. A coherent and defensible methodological structure provided the base for exploring how leaderful practices foster digital transformation to achieve sustainable outcomes in various contexts within SMEs. The following chapter presents the empirical findings generated within the methodology applied in this research.

CHAPTER 6
RESEARCH FINDINGS AND DISCUSSIONS

6.1 Introduction of the Chapter

This chapter offers the empirical results and analysis from a mixed-methods inquiry into the reciprocal relationship between relational leadership, digital transformation, and sustainable performance in publicly listed small and medium-sized enterprises (SMEs) in Italy and Pakistan. As a continuation of the methodological approach outlined in Chapter 5, the chapter has a narrative structure that moves from broad statistical findings to contextual phenomena supported by qualitative findings, and an analysis that is undertaken guided by the main research question: To what extent do relational leadership and digital transformation together strengthen ESG integration and sustainability reporting in SMEs?

This chapter conducts empirical testing of the conceptual framework established for this study. It positions Relational Leadership Theory as the fundamental lens for analyzing the collective, compassionate, and concurrent practices that underpin leaderful ESG approaches. This framework is applied to examine how these leadership dynamics both enable and underpin digital transformation in the pursuit of sustainability goals.

The chapter is structured around a context/cross-data comparison, allowing the authors to begin with quantitative analysis, including psychometric validation of the instruments, descriptive statistics of the sample, and results of hypothesis testing (correlation and regression), and to state cross-cultural comparisons between Italy and Pakistan directly. The qualitative section indicates thematic analysis, interpreting the "how" and "why" of the statistical results, and identifying how cultural models differ. Then, a cross-cultural comparison synthesizes the two national contexts and notes their convergence and divergence. Finally, an integrated discussion converges quantitative and qualitative support to assess the quantitative cultural aspects of the research questions and hypotheses, leading to the discussion of theoretical and practical implications in the final chapter.

6.2 Data Analysis and Validation

This section details the initial steps of data preparation and validation, beginning with descriptive statistics of the core variables, a profile of the sample, and a critical assessment of the psychometric properties of the measurement scales.

6.2.1 Descriptive Statistics and Sample Profile

The analysis begins with a description of the participant study variables. Table 6.1 demonstrates that, across the three constructs, the single SMEs in Pakistan reported higher means than those in Italy, with the most significant difference in the leadership-driven digital transformation construct (LDEP: 21.42 vs 18.83). In Italy, although the levels of sustainability reporting were relatively similar, the Italian SMEs reported significantly greater variance in the independence to do so construct (SD = 9.86 vs 6.42), suggesting less standardization for reporting levels across study participants. In sum, the overall variability observed across constructs indicates that we have sufficient variance to analyze associations and regression in the subsequent chapters.

Table 6.1: Descriptive Statistics for Core Constructs (N = 97 total; Italy N = 43; Pakistan: N = 54)

Variables	M (Total)	SD (Total)	M (Italy)	SD (Italy)	M (Pakistan)	SD (Pakistan)	Comparative Interpretation
RLEP_Total	46.32	10.14	44.79	10.92	47.53	9.39	Higher in Pakistan, more consistent
LDEP_Total	20.28	6.65	18.83	7.43	21.42	5.75	Pakistan leads in digital integration.
SR_Total	31.15	8.11	30.41	9.86	31.74	6.42	Similar levels, Italy is more variable.

Note: M = mean; SD = standard deviation; RLEP = Relational Leadership and ESG Performance; LDEP = Leadership-Driven Digital Transformation and ESG Performance; SR = Sustainability Reporting (ESG and SDGs). Comparative analysis indicates Pakistani SMEs report higher levels of digital integration with greater consistency, whereas Italian SMEs show more heterogeneous outcomes in sustainability reporting practices.

The quantitative phase's final sample of 97 listed SMEs provided cross-cultural data from an even split of participants (n=54, 55.7% from Pakistan, and n=43, 44.3% from Italy). The sample also showed a range of organizational sizes, with 15.5% identifying as micro-enterprises (1-10 employees) and 18.6% as SMEs with over 500 employees. A significant percentage of participants had extensive experience, with 77.4% reporting more than 6 years.

Pakistani SMEs reported significantly greater digital use (77.8% used sustainability management tools in their organizations, compared to 32.6% in Italy) and a higher maturity of ESG outcomes (38.9% have been focused on ESG for over 6 years, compared to 16.3% in Italy). Compared to their Pakistani counterparts, Italian leaders tended to have greater seniority in practice (65.1% had 21 or more years of workplace experience, compared to 35.2% in Pakistan). In both countries, over half of the participants reported integrating ESG approaches in their organizations (52.6%). In comparison, the ability to use digital methods to communicate sustainability was significantly stronger in Pakistan (87.0%) than in Italy (67.4%). It is important to note that demographic descriptors provide a clearer context for understanding cross-cultural data.

Table 6.2: Frequencies and Percentages of Socio-demographic Characteristics of the Participants (total N =97; Italy N =43; Pakistan: N =54)

Variables	*f (total)*	*% (total)*	*F (Italy)*	*% (Italy)*	*F (Pakistan)*	*% (Pakistan)*
Company Size (The total is 69)	69	100	43	100	26	100
1-10	15	21.7	12	27.9	3	11.5
11-50	20	29.0	16	37.2	4	15.4
51-200	12	17.4	7	16.3	5	19.2
201-500	4	5.8	2	4.7	2	7.7
501+	18	26.1	6	14.0	12	46.2
Country	97	100%	43	44.3	54	55.7
Pakistan	54	55.7				
Italy	43	44.3				
Years of Experience		100%	43	100%	54	100%
1-5 years	8	8.2	1	2.3	7	13.0
6-10 years	14	14.4	5	11.6	9	16.7
11-20 years	28	28.9	9	20.9	19	35.2
21+ years	47	48.5	28	65.1	19	35.2
Focus on ESG	97	100%	43	100%	54	100%
Less than 1 year	26	26.8	18	41.9	8	14.8
1-3 years	27	27.8	11	25.6	16	29.6
4-6 years	16	16.5	7	16.3	9	16.7
More than 6 years	28	28.9	7	16.3	21	38.9

No. of Team Members	97	100%	43	100%	54	100%
1-5	46	47.4	29	67.4	17	31.5
6-10	21	21.6	10	23.3	11	20.4
11-20	12	12.4	2	4.7	10	18.5
21+	18	18.6	1	2.3	17	31.5
Years of ESG focus	97	100%	43	100%	54	100%
Environmental	28	28.9	21	48.8	7	13.0
Governance	5	5.2	1	2.3	4	7.4
Social	13	13.4	1	2.3	12	22.2
All of the above	51	52.6	20	46.5	31	57.4
Digital Tool Usage Sustainability	97	100%	43	100%	54	100%
Yes	56	57.7	14	32.6	42	77.8
No	41	42.3	29	67.4	12	22.2
Digital Tool Usage for Communication on Sustainability	97	100%	43	100%	54	100%
Yes	75	77.3	28	65.1	47	87.0
No	22	22.7	15	34.9	7	13.0
Leadership Model	97	100%	43	100%	54	100%
Flat	9	9.3	1	2.3	8	14.8
Hierarchal	20	20.6	0	0.0	20	37.0
Horizontal	18	18.6	18	41.9	0	0.0
Vertical	18	18.6	18	41.9	0	0.0
Mixed	32	33.0	6	14.0	26	48.1

Note: Company size data was available for 69 participants (71.1% of the total sample), with complete data from Italy (n=43) and partial data from Pakistan (n=26). All other variables have complete data for the total sample (N=97).

The sample population (N = 97) provides significant contextual differences between Italian (n = 43) and Pakistani (n = 54) SMEs, which the cross-cultural study situates in its analysis. Overall, Italian SMEs were predominantly small businesses, with 65.1% reporting fewer than 50 employees. At the same time, Pakistan SMEs had a higher proportion of larger enterprises, with 22.2% noting that their businesses employed more than 500 employees. Differences also existed in terms of experience, with Italian leaders being more senior (65.1% had 21 or more years of experience, compared to 35.2% in Pakistan).

ESG maturity timelines also varied considerably, as Italian SMEs were more in the early stages of ESG focus. Such a focus is more in line with enterprises in development (67.5% with 3 years or less), while Pakistan SMEs had greater maturity in their ESG (38.9% with six or more years of focus).An outstanding technological difference in the use of digital tools to address sustainability, with Pakistani SMEs reporting substantially more use (77.8% to 32.6%) and community (87.0%

to 67.4%). The leadership systems displayed cultural differences as well: Italian SMEs preferred more horizontal/vertical models (83.8% combined), whereas Pakistani SMEs used mostly hierarchical or mixed models (85.1% combined). Such demographic differences provide important contextual data to help us understand the quantitative and qualitative findings above, especially regarding digital adoption activities and leadership models in the two cultural contexts.

6.2.2 Psychometric Properties and Reliability

Before evaluating the hypotheses, the internal consistency of the multi-item scales was estimated. As shown in Table 3, Cronbach's Alpha coefficient values were all clearly over the generally accepted cut-off score of 0.70 for all three constructs. The identical reliability scores across the Italian and Pakistani samples (RLEP $\alpha = 0.85$; LDEP $\alpha = 0.92$; SR $\alpha = 0.85$) demonstrate excellent reliability and strong measurement invariance, providing a strong, comparable platform for the cross-cultural analysis to follow.

Table 6.3: Internal Consistency of the Measurement Scales (N = 97 total; Italy N =43; Pakistan: N =54

Scale	*K*	Cronbach's Alpha (Italy)	Cronbach's Alpha (Pakistan)
RLEP	14	0.85	0.85
LDEP	06	0.92	0.92
SR	09	0.89	0.85

Note: K = number of items; RLEP = Relational Leadership and ESG Performance; LDEP = Leadership, Digital Transformation, and ESG Performance; SR = Sustainability Reporting (ESG and SDGs). All scales demonstrated high internal consistency, with coefficients significantly exceeding the recommended threshold of 0.70.

The identical reliability coefficients for the RLEP and LDEP scales across countries, along with the very similar coefficient for the SR scale, suggest strong measurement invariance. This provides a robust, comparable platform for subsequent cross-cultural analysis and hypothesis testing, as it indicates that the constructs were measured with equal reliability across the two national contexts.

6.3 Quantitative Results and Hypothesis Testing

This section presents the key statistical findings from the survey data, analyzing the relationships between the constructs of the conceptual framework.

This section presents the key statistical findings, beginning with the overall results for the full sample (N=97), followed by country-specific analyses for Italy (N=43) and Pakistan (N=54).

6.3.1 Correlation Analysis: Interrelationships of Core Constructs

A bivariate correlation analysis showed that each of the constructs of interest had significant positive associations in both countries, though with some key differences in the strength of cross-cultural correlations. Table 6.4 indicates that Italian SMEs demonstrated slightly stronger relationships between relational leadership and sustainability reporting (r=.741 vs .576) and between digital transformation and reporting (r=.834 vs .713). Italian SMEs also exhibited stronger leadership links, correlating with digital transformation (r = .670 vs. .602). This suggests that cultural differences influence how leadership and technology interact to affect sustainability outcomes.

Table 6.4: Inter-correlations of Key Constructs by Country (Pakistan N=54, Italy N=43)

Relationship	Pakistan(N=54)	Italy(N=43)	Cross-Cultural Pattern
RLEP ↔ LDEP	.670	.602	Stronger in Pakistan
RLEP ↔ SR	.576	.741	Much Stronger in Italy
LDEP ↔ SR	.713	.834	Stronger in Italy

Note: RLEP = Relational Leadership and ESG Performance; LDEP = Leadership, Digital Transformation, and ESG Performance; SR = Sustainability Reporting (ESG and SDGs). The correlation patterns suggest distinct cross-cultural pathways: Pakistani SMEs show a stronger leadership-to-technology link (RLEP↔LDEP), while Italian SMEs demonstrate a more direct route from both leadership and digital transformation to sustainability reporting (RLEP↔SR; LDEP↔SR).

The results from the correlation analysis indicate that, in both countries, systems have similar statistically significant positive relationships across constructs. In the underlying data, Italian SMEs show stronger relationships between relational leadership and sustainability reporting (r=.741 vs .576 in Pakistan) and between digital transformation and reporting (r=.834 vs .713). However, it is worth noting that the Pakistani SMEs also show a stronger relationship between leadership and digital transformation (r = .670 vs. .602). Further, the differences in significant correlations indicate that the interrelationships between leadership and technology mechanisms operate as a function of cultural practices and behaviors. While the Italian SMEs demonstrated a more direct leadership-to-reporting pathway, and the data indicated a direct leadership-to-

technology relationship in Pakistani SMEs, the latter construct also signified leadership-to-technology integration, as encouraged in training or as a process in their respective economies. The correlation analysis provides empirical support for the conceptual framework and highlights cultural distinctions in the actionability of management.

6.3.2 Preliminary Hypothesis Assessment via Bivariate Analysis

The bivariate correlations provide initial evidence for evaluating the working hypotheses, revealing the strength of the core relationships before examining their interplay in a multivariate context.

Evidence relating to H1: The initial relationship between relational leadership and leaderful practices that increase the capacity to implement ESG practices is strongly supported by highly significant correlations. The strength of RLEP and LDEP correlated highly in both countries (Pakistan - r=.670, p<.01; Italy - r=.602, p<.01), providing evidence that leaderful practices are inherently linked to the capacity to develop a digitally enabled organizational infrastructure for ESG. This provides direct evidence that relational leadership affects the capacity to embed such measures.

Evidence for H2: The strong, significant RLEP-LDEP correlations in both countries (Pakistan: r = .670; Italy: r = .602) provide initial support for the proposed reciprocal relationship, demonstrating their inherent interconnectedness. The strength of the relationship in both contexts suggests a meaningful, potentially universal bond that warrants further examination of its reciprocity.

Evidence related to H3: The proposed direct effect of leaderful practice on reporting is initially supported in Italy by a significant correlation ($r = .741$, $p < .01$) between the RLEP and SR. In Pakistan, although the correlation was weaker, the link remained strong ($r = .576$, $p < .01$), suggesting that the direct relationship between leaderful practice and reporting may be more potent in one culture than the other. A further analysis of the data using a regression technique will provide more substantial, more disciplined evidence of a direct effect by accounting for different variables**.**

6.3.3 Regression Analysis: Predictive Power on Sustainability Reporting

The regression analysis reveals notable cross-cultural variations in how relational leadership and digital transformation predict sustainability reporting outcomes. To enable direct comparison, Table 5 presents the multiple regression results for Pakistani and Italian SMEs side by side.

Table 6.5: Multiple Regression Analysis Summary for Predicting Sustainability Reporting *(Pakistan N=54, Italy N=43)*

Variable	Pakistan (N=54)		Italy (N=43)		Comparative Analysis
	B	β	B	β	
Constant	11.735	-	0.062	-	Different baseline levels
RLEP	0.121	0.177	0.339	0.375	Significant only in Italy
LDEP	0.664	0.595	0.806	0.608	Strong predictors in both
Model Fit	Value		Value		Interpretation
R^2	.526		.786		Better fit in Italy
Adj. R^2	.508		.775		Substantially higher explanatory power in Italy
F-statistic	28.346		73.272		Both models significant

Note: B = unstandardized coefficient; β = standardized coefficient; RLEP = Relational Leadership and ESG Performance; LDEP = Leadership, Digital Transformation, and ESG Performance. All predictors were significant at $p < .001$ except Pakistan RLEP ($p = .177$), which was not significant

The cross-cultural examination reveals essential patterns. Digital transformation (LDEP) as an emergent organizational construct strongly predicts sustainability reporting in both Pakistan (β = .595) and Italy (β = .608). Relational leadership (RLEP) demonstrates predictive power only in Italy (β=.375, p<.001), but not in Pakistan (β=.177, not significant). This indicates that in the case of Pakistan, positive effects attributed to leadership are working predominantly through digital leadership.

The Italian model's greater overall explanatory power ($R^2 = .786$) than the Pakistani model ($R^2 = .526$) provides further validity for the balanced lean towards leadership and technology in the

Italian context, which requires culturally specific implementation strategies. These results indicate that while the core theoretical relationships hold across cultures, the mechanisms and pathways that drive sustainability outcomes are culturally dependent.

6.3.4 Hypothesis Testing and Interpretation

The regression analysis, combined with the correlational and qualitative evidence, allows for a comprehensive evaluation of the study's hypotheses.

H1: Supported. The quantitative and qualitative supporting evidence demonstrates that relational leadership, encompassing leaderful practices, builds a strong capacity for ESG integration. The strong correlations between RLEP and LDEP (r = .602-.670) suggest that leaderful practices are among the main processes that generate a digitally enabled architecture to achieve ESG. The qualitative data explain how this capacity is configured, and capacities are configured: in Italy, the leaderful capacity is accomplished through structured co-creation; in Pakistan, it occurs through practical empowerment and trust. The regression analysis results — showing that LDEP is the strongest predictor of increased sustainability reporting (SR) capability — also validate that the leadership source of this digital capacity for SSR application is conditioning future sustainability performance actions.

*H2***:** Supported through Integrated Evidence. H2 examined mutual reciprocity between the leaderful practice and digital innovation. Strong, significant correlations between RLEP and LDEP (r = .602-.670) supported the inherent linkage. Although regression does not test for reciprocal relations, integrated qualitative findings are more robust. They show evidence of a virtuous cycle of leaderful effectiveness — one that demonstrates how leaderful practices trigger the adoption of digital practices, which enhance and scale those same practices**.**

H3: Mixed Support (Culture-Dependent). H3 proposed a direct effect of leaderful practice on reporting quality. The regression analysis reveals an apparent cultural contingency: H3 is strongly supported in Italy (β = .375, *p < .001) but is not statistically significant in Pakistan (β = .177, *p = .177). This indicates that the direct leadership-to-reporting pathway is practical only in contexts with more formalized ESG structures. In Pakistan, by contrast, leadership's influence is channeled indirectly through enabling digital transformation rather than directly impacting reporting outcomes.

6.3.5 Cross-Cultural Comparison: A Divergence in Digital Adoption

The comparison across cultures shows similar characteristics in the philosophical bases of leadership and the outcomes of sustainability reporting, but notable differences emerge in technological adoption. Though the countries have statistically equivalent relational leadership (p=.187) and sustainability reporting outcomes (p=.428), their relative approaches to digital transformation differ significantly: Pakistani SMEs exhibit a moderately higher level of digital transformation (d=.47, p=.056), which aligns with the qualitative outcome of their pragmatic-integration model. This discussion of technological differences, despite similar leadership and reporting outcomes, highlights culture-dependent paths to achieving sustainability goals: Pakistan emphasizes digital enablement, while Italy leans more on leadership models.

Table 6.6: Mean Comparison of Countries on Relational Leadership and ESG Performance, Leadership, Digital Transformation, and ESG Performance and Sustainability Reporting (ESG and SDGs. (Pakistan N = 54) (Italy N=43**)**

	Pakistan (n=54)		**Italy (n=43)**		**Statistical Comparison**		**Effect Size**
Variables	M	SD	M	SD	t	p	Cohen's d
RLEP	47.53	9.39	44.79	10.92	1.33	.187	.27
LDEP	21.42	5.75	18.83	7.43	1.93	.056	.47
SR	31.74	6.42	30.41	9.86	0.79	.428	.04

Note: RLEP = Relational Leadership and ESG Performance; LDEP = Leadership, Digital Transformation, and ESG Performance; SR = Sustainability Reporting

The data demonstrated both cross-cultural similarities and differences of consequence. Although the results for relational leadership (p=.187) and sustainability reporting practices (p=.428) were not statistically significant for Pakistani and Italian SMEs, the measures showed distinct differences in technology integration. The data comparison for digital transformation (LDEP), while showing a non-significant trend (p=.056), estimated a medium effect size (d=0.47) for the comparative differences in digital adoption with Pakistani SMEs demonstrating moderate, higher levels.

The quantitative data support and align with the qualitative data: whilst Pakistani SMEs report a pragmatic approach to digital utilization, Italian SMEs show a tendency towards a more reserved and facilitation-based approach. Stated, the cross-cultural difference lies not in differences in commitment to leadership philosophy or in reporting outcomes, but in the emphasis on strategic organizational processes and the prioritization of digital transformation.

6.4 Qualitative Results: The Interplay of Leadership and Digital Transformation in ESG Integration

In this section, we present the results from the qualitative phase, which aimed to provide explanatory depth for the quantitative findings. Analysis is based on transcripts from semi-structured interviews conducted with a purposively selected matched sample of four Italian and four Pakistani SMEs from similar industrial sectors (mostly manufacturing and industrial services) to control for industry-specific effects and allow targeted cross-cultural comparisons.

A manual comparative thematic analysis was undertaken on the complete dataset of responses to all 14 questions (see Chapter 5 below) through a systematic process of familiarization, preliminary coding, and theme development, and included a cross-cultural analysis. This methodological approach facilitated a nuanced interpretation of the qualitative data while retaining the rigour of analysis and proximity to the mixed-methods framework. Overall, a thematic analysis (as presented in Table 6.7 below) provided the structure for the explication.

Table 6.7: Thematic Mapping of Qualitative Questionnaire Items.

Core Theme	Relevant Questionnaire Items	Description of Thematic Focus
Relational Leadership & Collaboration	Q1, Q2, Q3, Q4, Q5	Examines teamwork methods, employee involvement in decision-making, cross-departmental alignment, and the roles of empathy and ethical frameworks.
Digital Transformation & Tool Usage	Q6, Q7, Q8, Q9, Q10	Focuses on the practicality of digital tools for tracking, the role of communication platforms, management's use of tools for motivation, and implementation challenges.

Core Theme	Relevant Questionnaire Items	Description of Thematic Focus
Sustainability Reporting & SDG Integration	Q11, Q12, Q13, Q14	Analyses the processes for measuring and reporting on SDG progress, the strategic use of sustainability reporting for internal and external communication, and the integration of ESG achievements into organizational narrative and identity

The analysis of these themes revealed two dominant, culturally informed models.

6.4.1 The Italian Model: Cautious-Facilitation

The Italian approach demonstrates deliberate, systematic integration in which formalized processes serve as the predominant vehicle for implementing sustainability actions. Relational leadership emerged through structured, institutionalized avenues of cooperation, rather than through informal interpersonal engagement.

Respondents continually referenced established procedural processes, such as "co-creating of action, bottom-up processes," as well as hierarchical processes for employee contributions, for example, "listening to their proposals based on the project we wanted to do." This demonstrates a formalized understanding of collaboration situated within existing organizational structures.

This planned approach also applies to the use of technology, with digital technology framed predominantly as a facilitator of practice rather than a strategic asset. Digital tools are utilized to engage in tasks such as "sharing the sustainability plan across an internal digital space" and having "weekly ESG meetings." Intriguingly, the way tools are used for motivation is noted as limited, with one interview citing that half the management team does not currently rely on digital tools for motivation. Other challenges, such as "the implementation of dedicated technology platforms and costs," only reinforce this cautious, conservative approach to digital transformation.

The general sustainability framework looks outward, mainly guided by compliance and reputational management factors. Ethical behaviour is evidenced through formal documentation - such as the "sharing of the code of ethics, anti-corruption policy. Sustainability efforts, such as SDG alignment, are seen purely as a reporting outcome for executive management, as in "reporting data to the Board of Directors.

6.4.2 The Pakistani Model: Pragmatic-Integration

In contrast, the Pakistani example represents an active, organic mix of leadership, technology, and sustainability in practice, demonstrating pragmatic adaptability and relationship-driven application.

Leadership exhibits as practical delegating based on immediate operational needs and relationships built on trust, through methods such as "forming dedicated groups that include members from different departments," and developing an organizational culture where one leader explained they could "trust each other and nudge each other," instead of relational leadership grounded in the formal aspects of an organization.

Digital transformation is viewed as both a strategic and motivational enabler. Tools are valued for their immediate functionality, being "very practical, and providing tracking in real time," particularly with mediums such as WhatsApp, noted as being "most effective." Notably, management uses these tools to "share goals, celebrate success, and motivate groups," fostering inclusive innovation and a direct connection between digital tools and motivation.

This applied empowerment breeds an intrinsically motivated approach to sustainability, where ethical behavior is part of cultural norms rather than simply compliance with procedures. Sustainability reporting is applied internally to foster positive competition, with observations such as "publishing quarterly reports resulting in teams competing in a positive way" exemplifying this. The SDGs are applied through practical organizational "dashboards and KPI scorecards," as tools for linking daily operational actions to universal sustainability principles.

6.4.3 Qualitative-Quantitative Synthesis

This synthesis provides the crucial explanatory layer for the cross-cultural quantitative findings, moving beyond statistical relationships to reveal the underlying 'how' and 'why.' To crystallize this integration, Table 6.8 maps the key quantitative patterns directly to their qualitative explanations, demonstrating how the distinct Italian and Pakistani models account for the observed statistical differences. The subsequent discussion elaborates on these connections.

Table 6.8 Synthesis of Quantitative Findings and Qualitative Explanations by Cultural Model

Quantitative Finding	Qualitative Explanation (Italian Model: Cautious-Facilitation)	Qualitative Explanation (Pakistani Model: Pragmatic-Integration)
Similar RLEP scores (Table 6)	Structured co-creation & formal processes (e.g., "bottom-up initiatives," "listening to proposals based on the planned project")	Practical empowerment & trust-based relationships (e.g., "we can trust each other," "forming dedicated groups")
Higher LDEP in Pakistan (p=.056, d=.47) (Table 6)	Digital as a facilitator for coordination (e.g., "sharing the sustainability plan via an internal digital platform")	Digital as a motivational & strategic engine (e.g., "highly practical, offering real-time tracking," "share goals, celebrate success")
RLEP significantly predicts SR only in Italy (β=.375, p<.001) (Table 5)	Direct, structured leadership-to-reporting pathway enabled by formal processes.	Leadership's influence is indirect, channeled primarily through enabling digital adoption.

Qualitative evidence supports the statistically similar RLEP scores across countries, as shown in Table 6.6. As shown in Table 6.6, although the RLEP scores were statistically identical across countries (indicating comparable levels of relational leadership), this was supported by qualitative evidence. Both contexts recognized collaboration as necessary, but it was implemented through different mechanisms: Italy through formal mechanisms (Cautious-Facilitation), and Pakistan through informal, trust-based mechanisms (Pragmatic-Integration). The scores indicate that the levels of relational leadership are similar, but they operationalize it differently.

Also evident in the qualitative data was the marginally non-significant difference in LDEP scores ($p = .056$), with a large effect size ($d = 0.47$). The patterns of digital adoption showed in the qualitative evidence were very different: Italy's cautious-facilitation approach to leadership in relation to monitoring coordination and formal reporting (e.g. through sharing the sustainability plan via an internal digital platform), is portrayed very differently to Pakistan's proactive, pragmatic approach to integrating digital tools as operational drivers and motivators for behavior (e.g. using WhatsApp to "share goals, celebrate success, and motivate teams"). The qualitative divergence explains the quantitative trend: Pakistani SMEs were found to be moderately more advanced in their digital integration practices.

The Italian regression model produced superior explanatory power (R^2 = .786 vs .526), reflecting a more systematic approach to sustainability, with leadership's and technology's roles clearly articulated and measured. The Pakistani model, while effective, relies more on organic, interwoven mechanisms that the quantitative model less completely captures. Consequently, the quantitative model captures the influence of leadership on technology and sustainability less completely.

This synthesis provides evidence that the theoretical relationships held in both cultures; however, the specific mechanisms and pathways within the models are culturally contingent. The essence of relational leadership provides the foundational context in both cultures. However, its translation into sustainable behavior is culturally framed through digital tools. In Italy, technology serves as a facilitator, while in Pakistan, it serves as a motivational engine.

6.5 Integrated Discussion: Crossing the Relational-Performance Gap

This section synthesizes the quantitative and qualitative findings to evaluate the working hypotheses and provide comprehensive answers to the research questions. The mixed-methods approach reveals not only that key relationships exist but also how and why they function differently across the Italian and Pakistani cultural contexts, providing a nuanced understanding of leadership-technology dynamics in sustainability.

6.5.1 Diagnosing the Gap: A Cross-Cultural Constant

This research began with the conceptual framework from Chapter 4, proposing a link between Relational Leadership, Leaderful Practice, Digital Transformation, and Sustainable Performance. The empirical journey through Italian and Pakistani data has done more than test this framework; it has refined it, leading to a central, unifying construct: The Relational-Performance Gap.

The findings confirm the existence of this gap and illuminate the mechanisms to bridge it. The cross-cultural data confirms a fundamental disconnect between relational intent and sustainable performance. While both Italian and Pakistani SMEs demonstrated strong relational instincts and a commitment to sustainability, the gap manifested in different ways. In Italy, it existed between structured processes and the ability to leverage technology for organic growth. In Pakistan, it was between strong informal trust networks and the ability to systematize them into impactful reporting. The statistically similar levels of Relational Leadership (RLEP) and Sustainability

Reporting (SR) underscore the gap as a universal challenge, with culturally contingent pathways across it.

6.5.2 The Architecture of the Bridge: Leaderful Practice (The Four Cs)

The results uphold Relational Leadership Theory (RLT) as the essential diagnostic, serving as a foundational bedrock. The strong, positive, statistically significant correlations between RLEP and other constructs (e.g., RLEP ↔ LDEP: r = .602-.670) support leadership-as-a-social-process as the foundational bedrock.

This study provides empirical evidence that Leaderful Practice means prescriptive architecture for bridging the gap. The Four Cs lived realities that provided explanations of the outcomes observed:

- Collectiveness was observed in Italy's cross-functional teams, coordinated through shared digital workspaces, and Pakistan's dedicated, cross-departmental teams, rapidly formed via instant messaging groups.
- Concurrency was a differentiator: enabled by agile, real-time tools (e.g., WhatsApp) in Pakistan, while in Italy, it was supported by scheduled, meeting-driven digital platforms.
- Collaboration was the engine in both: psychologically safe teams in Pakistan using tools for open dialogue, and structured dialogue within Italian teams facilitated by formal project management software.
- Compassion was the ethical mortar, operationalized in Italy through digitally shared codes of ethics, and in Pakistan through constant, encouraging communication on platforms that reinforced a culture of mutual trust.

6.5.3 The Construction Gear: Digital Transformation as the Key Enabler

Answering the research question, digital transformation appears to be the key mechanism through which leadership influences sustainability outcomes. Regression analysis confirmed it as the strongest predictor in both countries (Pakistan: $\beta = .595$, $p < .001$; Italy: $\beta = .608$, $p < .001$), with remarkably similar effect sizes.

Digital Transformation (LDEP) was the strongest individual predictor of Sustainability Reporting. It amplified and scaled leadership; it did not create leadership. It served as the essential "construction gear." In Pakistan, digital tools were also the "construction gear," actively building

the bridge (pragmatic-integration). In Italy, they were the "reinforcing mesh" that strengthened an existing, process-oriented structure (cautious facilitation). This functional divergence explains a near-significant difference in LDEP scores (p=.056, d=0.47), which is pertinent because the difference lies in the strategic function of the tools, not just in the level of adoption.

6.5.4 Culturally Engineered Pathways: The Italian and Pakistani Blueprints

These findings provide nuanced insights into how leadership practices matter in reporting behavior across cultures. The study finds both similarities in principles and differences in implementation.

The case of Pakistan reveals a vital finding; even with a strong relational culture, the effect of leadership on formal reporting is indirect. The integration-pragmatic model directs the leader's impact toward enabling the use of digital tools rather than establishing a clear, direct, formalized route to reporting. This explains the statistically non-significant direct effect of RLEP on SR (β = .177), despite the cultures having both strong relational instruments and a propensity for using digital tools.

On the contrary, the case of Italy reveals the opposite: intention or concern for relations is not enough without the scaling and quantification enabled by technology. While the threat of relationality was strong, it was the digital transformation (LDEP) that emerged as the most potent effect for producing measurable outcomes out of collaboration.

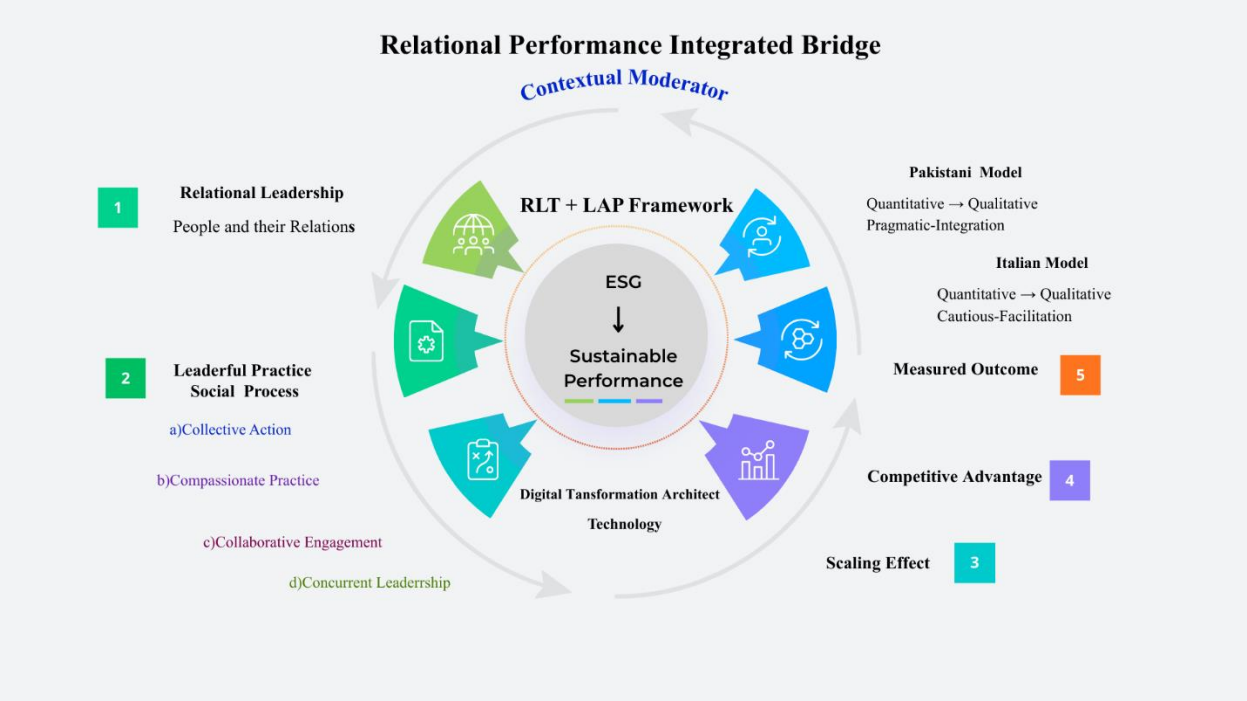
The metaphor of a bridge is an effective way to explain these differences. The Italian Cautious-Facilitation model represents a methodical approach to creating a bridge following a complete set of engineering plans, using cranes and other formal methods to erect a sturdy, predictable structure. On the other hand, the Pakistani Pragmatic-Integration model represents a more spontaneous ad hoc approach to bridge creation, using readily accessible tools such as trust-based relationships and a more practical design thinking. The result is an agile and adaptive structure that can withstand the test of time; both bridges are equally viable, but they represent two distinct ways of constructing bridges, shaped by culture and access to technology.

This divergence in culture also extends to technology use, which helps account for the near-significant differences in LDEP scores (p = .056, d = 0.47). Pakistan's greater use of digital technologies highlights its pragmatic approach to tool use, while Italy's more deliberative approach aligns with its facilitative orientation. Both pathways ultimately lead to similar connections

between leadership and sustainability outcomes but highlight culturally distinct mechanisms rooted in a more profound organizational philosophy.

Developed from the conceptual framework established in Chapter 4 and validated by this study's cross-case analysis, the Integrated Bridge Model (Figure 6.1) synthesizes these dynamics by visualizing how leaderful practice and digital transformation interact to bridge the Relational-Performance Gap across cultural contexts.

Figure 6.1: The Integrated Bridge Model: Crossing the Relational-Performance Gap in SMEs.



Source: Developed by A. Naseem, adapting the conceptual model (Figure 4.1) of Prof. S. Franzoni and Prof. O. Palermo. This framework synthesizes theoretical constructs with empirical findings from this study and was developed under their supervision.

6.5.5 The Integrated Bridge Model: A Synthesis

We can incorporate our quantitative and qualitative findings into the Integrated Bridge Model, as depicted in Figure 6.1. This model refines what we described initially by specifying both the problem and the solution process. Additionally, the key contribution in this research was the revelation of the dynamic, constitutive relationship between the two forces. As previously stated, the bridge across the relational-performance gap is built through intentional use of leaderful practices, and the strategic use of digital tools enhances the construction process, amplifying plans

and stabilizing the bridge's structure, as construction equipment does in construction. Ultimately, the unique cultural context shapes the relationships among the final construction project, a top-down project in Italy, and a bottom-up project in Pakistan. All are legitimate and appropriate channels to the same end point of sustainable performance that is demonstrably successful.

6.6 Conclusion of the chapter

In conclusion, this chapter has addressed the study's research questions in their entirety, demonstrating that a lens of relational leadership and leaderful practice reveals a universal Relational-Performance Gap in small and medium enterprises, which is overcome through culturally located pathways. The study demonstrated that structured environments, such as Italy's, afford leaderful practice, which can be directly theorized as influencing ESG performance. In contrast, in a more pragmatic context such as Pakistan, it is theorized to indirectly influence ESG performance through digital enablement. The research findings further support the notion of a symbiotic, dialectical relationship between leaderful practice and digital transformation, where digital tools act as a force multiplier for leadership, with each force materializing after the other in a positively recursive cycle that systematically closes the gap between relational intent and sustainable performance.

To conclude, the Integrated Bridge Model shows that without the architecture of Leaderful Practice, technology alone cannot cross the relational-performance divide. The case of Pakistan illustrates how far-reaching this point is: despite high digital adoption, the statistically non-significant direct effect of leadership on reporting ($\beta = .177$) shows that, even in a leaderful culture, relational energy alone is insufficient to drive formal sustainability outcomes without the deliberate architecture of the Four Cs.

The Italian case underscores the complementary truth: leadership intention is not enough unless we can scale and quantify it with technology. Despite strong relational anchoring, technology (LDEP) was the strongest predictor when relational leadership and collaboration were used as performance measures.

As a result, the primary contribution of this research is the demonstration of a dynamic, constitutive relationship between these forces. The bridge across the relational-performance gap is built through the purposeful use of leaderful practices. At the same time, digital tools serve as the necessary equipment for construction, forging the pathway and structurally reinforcing it. The

cultural context ultimately defines a top-down, engineered structure in Italy versus a bottom-up, community-built crossing in Pakistan. Both paths are built with cultural blueprints yet are both legitimate and effective in achieving the same end product—substantial, measurable, and sustainable performance. The validated Bridge Model provides a robust and actionable framework for understanding and activating the sustainability potential of SMEs across diverse cultural and economic contexts.

CONCLUSIONS

The research ultimately evidences a significant, realistic truth: relational leadership is not an academic or conceptual idea. It is a tangible and operational reality in SMEs. Our research validates the fundamental role of leaderful practices: collectiveness, concurrency, collaboration, and compassion. These are not theoretical ideas to be added to; they are already embedded in relationships in small businesses. The challenge is not to impose theoretical leadership models, but to identify, release, and direct this relational energy.

This research journey has illuminated a central construct: The Relational-Performance Gap—the fundamental fragmentation between relational strengths in SMEs and the competency to engage in formal ESG performance. We offer the Integrated Bridge Model as the definitive response to the theoretical gap. It demonstrates that:

- *Diagnoses the Gap: Relational Leadership Theory provides the fundamental diagnosis.*
- *Designs the Bridge: Leaderful Practice provides the prescriptive framework, the bridge design—built on the Four Cs.*
- *Enables Construction: Digital Transformation provides the necessary building blocks to achieve scale and formalize outcomes.*
- *Reaches the Destination: Sustainable Performance is the outcome achieved by crossing the bridge.*

Digital transformation is the primary avenue for this activation. It harnesses an organization's relational energy toward clear, measurable, and flexible organizational sustainability goals. Sustainability is depicted not simply as a compliance exercise; it is a living system fed by the relational processes that already exist within the organization. The cross-cultural findings further support this model, as whether through Pakistan's Pragmatic-Integration or Italy's Cautious-Facilitation, the bridge can be constructed in a culturally specific manner while arriving at the same destination: substantive ESG performance and SDG alignment.

Theoretical Implications

This study directly addresses the "conceptual vacuum" and "foundational oversight" identified in the literature review by providing the first integrated theoretical and empirical account of the dynamic interplay between relational leadership, digital transformation, and sustainability in SMEs. The findings make four key contributions that fill the specific gaps in the existing scholarship:

- This research *validates a core premise*: relational leadership is not a theoretical abstraction but a tangible reality within SMEs. The study validates that leaderful practices—collectiveness, concurrency, collaboration, and compassion—are not external concepts to be added but are already embedded in the relational fabric of small businesses. The central challenge, therefore, is not to impose new leadership models but to identify, activate, and direct this innate relational energy, which then "amplifies" these practices to achieve scalable ESG outcomes.
- *Theorizing the Reciprocal Leadership-DT Nexus in the SME Context***:** Previous studies have either excluded the leadership emphasis on the digitalization of SMEs (Chatterjee et al.,2021) or examined the digitalization of large companies (Westerman et al., 2014). In the study, we demonstrate a two-way relationship in which relational leadership minimizes digital adoption barriers by fostering psychological safety, trust, and shared responsibility. In contrast, digital tools enhance leaderful practices, promoting transparency and engagement. Thus, this provides the missing mechanism by which SMEs overcome limited resources to achieve digital innovation.
- *Shifting the SME Sustainability Paradigm from Compliance to Activation***:** The research contradicts the idea that sustainable business requires formalized governance structures in order to achieve results. Instead, it demonstrates that SMEs have the capability for sustainable performance through their relationship-based practices. One critical point to note is that these practices, while naturally present, need to be intentionally designed and enabled through "digital transformation" to convert their latent human capital into quantifiable ESG results. As such, this "new" model of development will allow SMEs to develop in a manner that maximizes, rather than negates, the organic attributes of their operations.
- *Introducing a Cross-Cultural Model of Contextualized Integration***:** In addition to the more general models, this study presents two additional models: "Cautious-Facilitation" (Italy**)** and

"Pragmatic-Integration" (Pakistan). This is an important theoretical contribution as the general relationship between these factors is universal, but its expression may be culturally dependent. This provides a nuanced perspective on how national context shapes beliefs and the strategic use of technology toward ESG-related means and goals, which is urgently needed to fill the void in context-related frameworks.

In summary, this research transforms the identified "foundational oversight" into a foundational contribution. It progresses scientific knowledge by replacing the view of these elements as separate with a validated model of their synergy, offering a new trajectory for research in sustainable leadership and digital innovation that is firmly grounded in the SME context.

Practical and Policy Implications

These findings provide substantial implications for both SME leaders and policymakers. For SME leaders, the most significant implication is that they must invest in their organization's human capital by emphasizing a culture of empathy, a sense of collective responsibility, and interdepartmental collaboration, which are relationally necessary to realize the full value of technology. SME leaders should also be encouraged to view it as strategic rather than merely functional. This could be modelled on the Pakistani experience of using digital dashboards and communication platforms to share goals, celebrate successes, and make sustainability progress visible to all, thereby allowing the data to serve as a motivator. Digital strategies must align with cultural contexts: Italian leaders should target pilot projects that provide demonstrably clear competitive advantages, such as lower operating costs or improved market access, to mitigate cultural resistance. Pakistani leaders should consider formalizing successful digital practices on an ad hoc basis into structured workflows, allowing for scalability and knowledge retention.

A significant lesson for policymakers and supporting bodies is the need to move away from "one-size-fits-all" support programs. Context sensitivity is required for both digital transformation grants and ESG incentives. For example, initiatives in situations such as Italy had to encompass change management and demonstrate clear ROI, while in situations such as Pakistan, overcoming foundational digital gaps in infrastructure and literacy had to be addressed first and foremost. This creates clear opportunities to promote integrated support programs that do not treat leadership, digitalization, and sustainability as separate silos and that incentivize and train for an integrated, holistic approach to these areas, with the most significant impact in applied practice. Finally, we

recommend providing cross-cultural learning platforms for SME leaders from different countries to share experiences. For example, this would provide an opportunity for an Italian firm leader to learn from digital-driven practices in Pakistan. In contrast, a Pakistani firm leader can adopt approaches similar to those used by Italian counterparts for formal reporting and structured strategic planning.

Limitations

This research study has limitations. The cross-sectional design will be used to establish relationships, but not necessarily to infer causality. Although competitive, the sample consists of listed SMEs, which may not accurately represent most non-listed SMEs. Additionally, the qualitative sample is adequate for thematic saturation but limits statistical generalizability. Such limitations offer fruitful research directions for the future.

Recommendations for Future Research

Future research should use longitudinal designs, as these enable ongoing assessment of the causal relationships among the different elements of the relationship between leaderful practices and digital tools. To confirm and refine the proposed models and investigate the exact processes by which various digital tools (e.g., AI, IoT) enable or transform leaders' practices directly, researchers should extend the cross-cultural comparison to other emerging and developed economies.

Overall, this combined study addresses the fundamental weakness of the literature. It offers a validated framework that characterizes the mutually empowering correlation between relational leadership and digital transformation. This research reveals that, for SMEs, sustainability does not lie in their decision to invest in people or technology, but in a strategy to capitalise on their synergy. Leaderful practices would provide the moral and collaborative compass, and digital transformation would enable the scale of that shared ability, making ESG performance quantifiable, transparent, and deeply embedded in the organizational fabric.

APPENDIX

APPENDIX A: Qualitative Questionnaire

Title: Survey on Leadership, Digital Transformation & ESG in SMEs

Demographic and Organizational Information

1. Position/Job Title: *
2. Company Name: *
3. Industry: *
4. Company Size: *
5. Country: *
6. Years of Experience and Operations: *

Questionnaire for Qualitative Research

1. How is collaboration between different teams encouraged to achieve sustainability goals?
   - Can you provide examples of methods, tools, or digital platforms that are used to promote this collaboration, if it occurs? *
2. How are employees involved in the decision-making process regarding sustainability initiatives?
   - Are there formal processes (such as meetings, town hall sessions, or feedback mechanisms) in place that allow employees to contribute to these decisions? *
3. What specific strategies ensure alignment across departments in pursuing sustainability goals?
   - Can you provide an example of a time when this alignment was particularly successful or challenging, and how leadership played a role in that process? *
4. Can you provide an example of how relationships based on collaboration, empathy, or collective responsibility led to a positive outcome in your company's sustainability efforts?
   - How did these behaviors contribute to achieving sustainability goals? *
5. What mechanisms ensure that ethical considerations, such as fairness, transparency, and accountability, are incorporated into your company's sustainability efforts? *
   - Can you provide a specific example where ethics, such as fairness or transparency, directly influenced sustainability decisions or outcomes?
6. How practical are the digital tools used by your company (e.g., dashboards, business intelligence software) in tracking and reporting sustainability efforts?

- Have these tools improved your company's ability to achieve sustainability goals, and how have they influenced decision-making and actions toward sustainability?

7. How do digital communication tools (e.g., Google Meet, Microsoft Teams, WhatsApp) contribute to achieving your organization's sustainability goals?
   - Can you provide examples of how these tools have enhanced communication, informed decision-making, and fostered team collaboration in sustainability initiatives? *
8. To what extent do digital tools facilitate dialogue and team collaboration in achieving sustainability objectives? *
   - Can you provide an example where a digital communication tool (like Teams or WhatsApp) allowed a junior employee to surface a sustainability idea or concern that was then acted upon by the team? *
9. To what extent does management use digital tools to encourage teams in their achievement of sustainable performance? *
   - Can you provide examples of how digital tools have been used by management to enhance team motivation and drive sustainability goals? *
10. What challenges does your company face in using digital tools for sustainable performance?
    - Are there specific barriers related to technology, skills, or organizational culture that make it difficult to leverage these tools fully? How does your company address these challenges? *
11. What specific methods or tools does your company use to measure and track progress toward the SDGs?
    - How does management ensure that your ESG efforts are aligned with these global goals, and what role do managers play in promoting this alignment? *
12. What specific methods or tools does your company use to measure and track progress toward the SDGs?
    - How does management ensure that your ESG efforts are aligned with these global goals, and what role do managers play in promoting this alignment? *
13. To what extent is sustainability reporting used to share the organization's sustainability-related achievements and its teams' progress toward achieving SDGs? *
    - Can you provide examples of how sustainability reporting has helped improve team alignment and motivation toward sustainability goals? *
14. If sustainability reports are shared within your organization, what are the primary ways in which they communicate to the team? *
    - If not, what are your views on the extent to which sustainability reports can be a valuable tool for motivating teams to achieve sustainable performance? *

APPENDIX B: Email with Quantitative Questionnaire

Email of Invitation

Dear Sir / Madam,

I am a PhD Student at the University of Brescia, Italy, and a Research Visiting Scholar at Nottingham Trent University, United Kingdom. My study focuses on Relational Leadership, Leaderful Practices, and Digital Transformation to achieve ESG (Environmental, Social, Governance) performance and align with the Sustainable Development Goals (SDGs) in Small and Medium Enterprises (SMEs) across various economic sectors. I am setting the study in two countries, namely, Pakistan and Italy.

This questionnaire aims to collect data on how relational leadership, leaderful practices, and digital transformation contribute to achieving ESG performance and aligning with SDGs within SMEs.

As the Owner/Chief Executive Officer/General Manager, please take a few minutes to complete this questionnaire. Based on your experience within your organization, the information you provide is essential in helping me improve the analysis. The questionnaire will take approximately 10-15 minutes to complete, and the data will be used solely for academic purposes, with anonymity ensured.

The questionnaire is available at the following link: You can fill out any one of the questionnaires below.

https://docs.google.com/forms/d/e/1FAIpQLSdG-_nhDSw__uvCJ3Yn7yUaMjobFTyEULWVK8tdiwylS9h5SQ/viewform?usp=header

Please fill in the questionnaire by _____.

I greatly appreciate your cooperation, and I look forward to hearing back from you.

Thank you for your time.

Best regards,

Aliya Naseem

PhD Student, University of Brescia

Visiting Research Scholar, Nottingham Trent University

APPENDIX B: Email in Italian with Quantitative Questionnaire

Email of Invitation

Gentile Signore/a,

Sono una studentessa di dottorato all'Università di Brescia, in Italia, e ricercatrice ospite presso la Nottingham Trent University, nel Regno Unito. La mia ricerca si concentra sul ruolo della leadership relazionale, delle pratiche leaderful e della trasformazione digitale nel raggiungimento della performance ESG e nell'allineamento agli Obiettivi di Sviluppo Sostenibile (SDG) nelle PMI in Pakistan e in Italia.

La invito gentilmente a partecipare a un questionario di 10 minuti per fornire preziose informazioni su come questi fattori contribuiscono alla performance ESG nelle PMI. Le risposte saranno anonime e utilizzate esclusivamente per scopi accademici.

Può accedere al questionario tramite il seguente link:

https://docs.google.com/forms/d/e/1FAIpQLSeNUGPAJuksSGO8pLTWJ2Ly-6zdAlTosjJPmWMOuByxHuOWTw/viewform?usp=header

Si prega di completarlo entro il _____.

Grazie per il suo tempo e la sua collaborazione.

Cordiali saluti,
Aliya Naseem
Dottoranda, Università di Brescia
Visiting Researcher, Nottingham Trent University

APPENDIX C Quantitative Questionnaire English Version

Title: Leadership, Digital Transformation, and ESG in SMEs

Introduction: My name is Aliya Naseem, and I am a PhD student at the University of Brescia, Italy, and a Visiting Research Scholar at Nottingham Trent University, UK. My research focuses on how Relational Leadership, Leaderful Practices, and Digital Transformation contribute to ESG (Environmental, Social, and Governance) performance and alignment with the Sustainable Development Goals (SDGs) in Small and Medium Enterprises (SMEs) in Pakistan and Italy.

This questionnaire is intended for Owners, CEO's, or General Managers of SMEs. Your participation will provide valuable insights that are critical to this study. The survey takes approximately 10–15 minutes, and all responses will remain anonymous and will be used solely for academic purposes.

Thank you for your time and valuable input.

Indicates required question

Demographic and Organizational Information

Please provide some basic details about yourself and your organization. This information will be used solely for research purposes and will remain confidential.

1. Position/Job Title: *
Short answer text

2. Company name (optional):
Short answer text

3. Industry (please, select the relevant option): *

- Manufacturing
- Services
- Hospitality
- Retail
- IT/Tech
- Healthcare
- Constructions
- Real Estate
- Other specify

4. Other:
Short answer text

5. If hospitality (select the stars):

- 3
- 4
- 5

6. Company size (number of employees): *

- 1-10
- 11-50
- 51-200
- 201-500
- 501+

7. Country: *

- Pakistan
- Italy

8. Years of existence and operation: *

- 1-5
- 6-10
- 11-20
- 21+

9. How long has your company been focusing on ESG performance? *

- Less than 1 year
- 1-3 years
- 4-6 years
- More than 6 years

10. How many people are in your team or department? *

- 1-5
- 6-10
- 11-20
- 21+

11. What is your company's primary focus in terms of ESG performance? *

- Environmental
- Social
- Governance
- All of the above

12. Does your company use digital tools or platforms to support sustainability reporting (e.g., AI, IoT, Digital Twin, etc.)? *

- Yes
- No

13. Does your company use digital tools or platforms to support communication on sustainable performance (e.g., Google Meet, Microsoft Teams, Metaverse, WhatsApp, etc.)? *

- Yes
- No

14. What type of leadership model is most prevalent in your organization? *

- Hierarchical (Top-down)
- Flat/Team-based (Leaderful)
- Mixed

Relational Leadership/Leaderful Practices and ESG Performance

ESG Performance reflects an organization's impact on the environment, its commitment to social responsibility, and the strength of its governance practices, aligning business goals with sustainable development.

1. To what extent do you, as a leader, promote shared responsibility and collaboration across teams to achieve ESG performance? *

- 1 (Not at all)
- 2
- 3
- 4
- 5 (To a considerable extent)

In your opinion, what are the reasons for not applying ESG practices?

a) Lack of awareness *

- 1 (Not at all)
- 2
- 3
- 4
- 5 (To a considerable extent)

b) Limited resources (financial or human) *

- 1 (Strongly Disagree)
- 2
- 3
- 4
- 5 (Strongly Agree)

c) Lack of leadership commitment *

- 1 (Strongly Disagree)
- 2
- 3
- 4
- 5 (Strongly Agree)

d) No clear strategy or direction for ESG performance *

- 1 (Strongly Disagree)
- 2
- 3
- 4
- 5 (Strongly Agree)

e) Lack of understanding of how to integrate ESG performance into business strategy *

- 1 (Strongly Disagree)
- 2
- 3
- 4
- 5 (Strongly Agree)

f) Regulatory or legal constraints (not required in our industry or region) *

- 1 (Strongly Disagree)
- 2
- 3
- 4
- 5 (Strongly Agree)

2. How often does your team collaborate with other teams/business units to achieve ESG performance? *

- 1 (Never)
- 2
- 3
- 4
- 5 (Very Often)

3. How effective is cross-team collaboration in achieving ESG performance? *

- 1 (Not effective)
- 2
- 3
- 4
- 5 (Very effective)

4. To what extent do employees feel collectively responsible for achieving ESG performance? *

- 1 (Not responsible)
- 2
- 3
- 4
- 5 (Very responsible)

5. How often does your firm/organization communicate ESG performance (objectives and results) to all employees? *

- 1 (Never)
- 2
- 3
- 4
- 5 (Very Often)

6. How aligned are the actions of different teams in your organization when it comes to ESG performance? *

- 1 (Not aligned)
- 2
- 3
- 4
- 5 (Fully aligned)

7. How often do you, as a leader, ensure coordination between teams in executing actions for achieving ESG performance? *

- 1 (Never)
- 2
- 3
- 4

- 5 (Very Often)

8. How strongly does your firm integrate ethical considerations into its ESG efforts? *

- 1 (Not at all)
- 2
- 3
- 4
- 5 (Very strongly integrated)

9. To what extent do employees contribute to decision-making regarding ESG efforts? *

- 1 (Never)
- 2
- 3
- 4
- 5 (Very actively)

Leadership, Digital Transformation, and ESG Performance

This section explores how leadership practices and digital transformation initiatives influence your organization's environmental, social, and governance (ESG) performance.

10. How often does your firm use digital tools (IoT, AI, Digital Twin, etc.) for monitoring and reporting ESG performance? *

- 1 (Never)
- 2
- 3
- 4
- 5 (Very frequently)

11. How practical are digital tools in helping your firm track and report ESG progress? *

- 1 (Not effective)
- 2
- 3
- 4
- 5 (Very effective)

12. To what extent do digital tools (IoT, AI, Digital Twin, etc.) support the leader in motivating the team to achieve ESG performance? *

- 1 (Never)
- 2
- 3
- 4
- 5 (Very frequently)

13. To what extent is the leader attentive to digital tools (IoT, AI, Digital Twin, etc.) in motivating the team to achieve ESG performance? *

- 1 (Never)
- 2
- 3
- 4

- 5 (Very frequently)

14. To what extent do digital communication tools (Microsoft Teams, Google Meet, Whats App, Meta verse, etc.) support the leader in motivating the team to achieve ESG performance? *

- 1 (Never)
- 2
- 3
- 4
- 5 (Very frequently)

15. To what extent does the leader use digital communication tools to manage real-time dialogue with the team aimed at achieving ESG performance? *

- 1 (Never)
- 2
- 3
- 4
- 5 (Very frequently)

Sustainability Reporting (ESG and SDGs)

This section focuses on how your organization reports on its Environmental, Social, and Governance (ESG) performance and on its alignment with the United Nations Sustainable Development Goals (SDGs).

16. To what extent does the leader present the sustainability report to the team, where the sustainable performances that the team has pursued in line with the Sustainable Development Goals (SDGs) are shown? *

- 1 (Never)
- 2
- 3
- 4
- 5 (Very frequently)

17. How would you rate your firm’s environmental sustainability measures (e.g., waste reduction, energy efficiency, water consumption reduction, etc.)? *

- 1 (Poor)
- 2
- 3
- 4
- 5 (Excellent)

18. How would you rate your firm’s social performance (e.g., the well-being of employees, human rights, customer satisfaction, etc.)? *

- 1 (Poor)
- 2
- 3
- 4
- 5 (Excellent)

19. How would you rate your firm's governance performance (e.g., partnership based on principles of collaboration and transparency based on a responsible corporate culture, etc.)? *

- 1 (Poor)
- 2
- 3
- 4
- 5 (Excellent)

20. How engaged is your firm in implementing the SDGs of the United Nations Agenda 2030? *

- 1 (Not engaged)
- 2
- 3
- 4
- 5 (Very engaged)

21. How important is the sustainability report for your firm? *

- 1 (Not important at all)
- 2
- 3
- 4
- 5 (Very important)

22. Does the sustainability report represent a tool capable of communicating ESG performance? *

- 1 (Not capable at all)
- 2
- 3
- 4
- 5 (Very capable)

23. Does the sustainability report represent a tool capable of communicating ESG performance? *

- 1 (Not capable at all)
- 2
- 3
- 4
- 5 (Very capable)

24. Is the sustainability report a tool to communicate the connections between ESG performance and SDG goals? *

- 1 (Not at all)
- 2
- 3
- 4
- 5 (Very strongly)

25. How much does the leader involve the team in the preparation of the sustainability report? *

- 1 (Not involved at all)
- 2

- 3
- 4
- 5 (Fully involved)

Your time and insights are greatly appreciated. Your responses will significantly advance academic research on sustainable leadership and development in SMEs.

If you have any questions or would like to receive a summary of the findings, feel free to contact me at a.naseem@studenti.unibs.it.

Aliya Naseem, PhD Student, University of Brescia

Visiting Research Scholar, Nottingham Trent University

APPENDIX C Quantitative Questionnaire Italian Version

QUESTIONARIO DI RICERCA

Titolo: Leadership, trasformazione digitale e ESG nelle PMI

Istruzioni per il partecipante:

Mi chiamo Aliya Naseem e sono dottoranda presso l'Università di Brescia, in Italia, e Visiting Research Scholar presso la Nottingham Trent University, nel Regno Unito. La mia ricerca si concentra su come la leadership relazionale, le pratiche di leadership e la trasformazione digitale contribuiscano alle performance ESG (Environmental, Social, and Governance) e all'allineamento con gli Obiettivi di Sviluppo Sostenibile (SDG) nelle piccole e medie imprese (PMI) in Pakistan e in Italia. Questo questionario è destinato ai titolari, ai CEO o ai direttori generali di PMI. La vostra partecipazione fornirà preziose informazioni per questo studio. Il sondaggio dura 10-15 minuti e tutte le risposte resteranno anonime e saranno utilizzate esclusivamente per scopi accademici. Grazie per il tempo dedicato e per il prezioso contributo.

Contatto: a.naseem@studenti.unibs.it

Sezione 1: Informazioni demografiche e organizzative

Si prega di fornire alcune informazioni di base su di sé e sulla propria organizzazione. Queste informazioni saranno utilizzate esclusivamente a fini di ricerca e rimarranno riservate.

1. **Posizione/Titolo di lavoro: ***
2. **Nome dell'azienda (facoltativo):**
3. **Settore:**
    - Manifattura
    - Servizi
    - Ricettività
    - Commerciale
    - IT/tecnologia
    - Sanità
    - Immobiliare
    - Costruzione
    - Altro (specificare per favore)
4. **Se ricettività (seleziona le stelle):**
    - 3
    - 4
    - 5
5. **Dimensioni dell'azienda (numero di dipendenti): ***
    - 1-10
    - 11-50
    - 51-200
    - 201-500
    - 501+
6. Paese: *

- Pakistan
- Italy

7. Anni di esistenza e di attività: *
   - 1-5
   - 6-10
   - 11-20
   - 21+
8. Da quanto tempo la vostra azienda si concentra sulle performance ESG? *
   - Meno di 1 anno
   - 1-3 anni
   - 4-6 anni
   - Più di 6 anni
9. Quante persone ci sono nel vostro team o nel vostro dipartimento? *
   - 1-5
   - 6-10
   - 11-20
   - 21+
10. Qual è l'obiettivo principale della vostra azienda in termini di performance ESG? *
    - Ambientale
    - Sociale
    - Governance
    - Tutti i precedenti
11. La vostra azienda utilizza strumenti o piattaforme digitali per supportare la rendicontazione della sostenibilità (ad esempio, intelligenza artificiale, IoT, Digital Twin, ecc.)? *
    - Si
    - No
12. La tua azienda utilizza strumenti o piattaforme digitali per supportare la comunicazione sulle prestazioni sostenibili (ad esempio, Google Meet, Microsoft Teams, Metaverse, WhatsApp, ecc.)? *
    - Si
    - No
13. Quale tipo di modello di leadership è più diffuso nella vostra organizzazione? *
    - Modello Verticale/Gerarchico/Basato su dinamiche “dall'alto verso il basso”
    - Modello Orizzontale/Basato sulla condivisione/partecipazione del team
    - Misto

Sezione 2: Leadership relazionale/Pratiche di leadership e performance ESG

Le performance ESG riflettono l'impatto di un'organizzazione sull'ambiente, il suo impegno verso la responsabilità sociale e la forza delle sue pratiche di governance.

In che misura, in qualità di leader, promuove la responsabilità condivisa e la collaborazione tra i team per raggiungere le performance ESG? *

- Scala da 1 (Per nulla) a 5 (In misura considerevole)

15. A vostro avviso, quali sono le motivazioni della mancata adozione delle pratiche ESG? *

- a) Mancanza di consapevolezza (Scala da 1 a 5: Fortemente in disaccordo - Fortemente d'accordo)
- b) Risorse limitate (finanziarie o umane) (Scala da 1 a 5)
- c) Mancanza di impegno della leadership (Scala da 1 a 5)
- d) Nessuna strategia o direzione chiara per le performance ESG (Scala da 1 a 5)
- e) Mancanza di comprensione di come integrare le performance ESG nella strategia aziendale (Scala da 1 a 5)
- f) Vincoli normativi (non richiesti nel nostro settore o nel nostro Paese) (Scala da 1 a 5)

16. Con quale frequenza il vostro team collabora con altri team/unità operative per raggiungere le performance ESG? *

- Scala da 1 (Mai) a 5 (Molto spesso)

17. Quanto è efficace la collaborazione tra team/unità operative nel raggiungimento delle performance ESG? *

- Scala da 1 (Non efficace) a 5 (Molto efficace)

18. In che misura i dipendenti si sentono collettivamente responsabili del raggiungimento delle performance ESG? *

- Scala da 1 (Non responsabile) a 5 (Molto responsabile)

19. Con quale frequenza la vostra azienda comunica le performance ESG (obiettivi e risultati) a tutti i dipendenti? *

- Scala da 1 (Mai) a 5 (Molto spesso)

20. Quanto sono allineate le azioni dei diversi team/unità operative della vostra azienda in termini di performance ESG? *

- Scala da 1 (Non allineate) a 5 (Completamente allineate)

21. Con quale frequenza, in qualità di leader, assicura il coordinamento tra i team/le unità operative dell'azienda nella gestione di azioni volte al raggiungimento delle performance ESG? *

- Scala da 1 (Mai) a 5 (Molto spesso)

22. In che misura la vostra azienda integra considerazioni etiche nei propri sforzi ESG? *

- Scala da 1 (Nessuna integrazione) a 5 (Forte integrazione)

23. In che misura i dipendenti contribuiscono al processo decisionale relativo agli sforzi ESG? *

- Scala da 1 (Mai) a 5 (Molto attivamente)

Sezione 3: Leadership, trasformazione digitale e performance ESG

Questa sezione esplora come le pratiche di leadership e le iniziative di trasformazione digitale influenzano le performance ambientali, sociali e di governance (ESG) della vostra azienda.

24. Con quale frequenza la vostra azienda utilizza strumenti digitali (IoT, AI, Digital Twin, ecc.) per monitorare e rendicontare le performance ESG? *

- Scala da 1 (Mai) a 5 (Molto frequentemente)

25. Quanto sono funzionali gli strumenti digitali per aiutare la vostra azienda a monitorare e rendicontare i progressi ESG? *

- Scala da 1 (Non funzionali) a 5 (Molto funzionali)

26. In che misura gli strumenti digitali (IoT, AI, Digital Twin, ecc.) supportano il leader nel motivare il team a raggiungere le performance ESG? *

- Scala da 1 (Mai) a 5 (Molto frequentemente)

27. In che misura il leader è attento agli strumenti digitali (IoT, AI, Digital Twin, ecc.) per motivare il team a raggiungere le performance ESG? *

- Scala da 1 (Mai) a 5 (Molto frequentemente)

28. In che misura gli strumenti di comunicazione digitale (Microsoft Teams, Google Meet, WhatsApp, Metaverso, ecc.) supportano il leader nel motivare il team a raggiungere le performance ESG? *

- Scala da 1 (Mai) a 5 (Molto frequentemente)

29. In che misura il leader utilizza strumenti di comunicazione digitale (Microsoft Teams, Google Meet, WhatsApp, Metaverso, ecc.) per gestire il dialogo in tempo reale con il team finalizzato al raggiungimento delle performance ESG? *

- Scala da 1 (Mai) a 5 (Molto frequentemente)

Sezione 4: Reporting sulla sostenibilità (ESG e SDG)

Questa sezione si concentra sul modo in cui la vostra azienda rendiconta le proprie performance ambientali, sociali e di governance (ESG) e si allinea agli Obiettivi di sviluppo sostenibile (SDG) delle Nazioni Unite.

30. In che misura il leader condivide con il suo team il report di sostenibilità, che illustra le performance sostenibili perseguite in linea con gli Obiettivi di sviluppo sostenibile (SDG)? *

- Scala da 1 (Mai) a 5 (Molto frequentemente)

31. Come valuterebbe le performance ambientali della vostra azienda (ad esempio, riduzione dei rifiuti, efficienza energetica, riduzione del consumo di acqua, ecc.)? *

- Scala da 1 (Insufficienti) a 5 (Eccellente)

32. Come valuterebbe le performance sociali della tua azienda (ad esempio, il benessere dei dipendenti, i diritti umani, la soddisfazione dei clienti, ecc.)? *

- Scala da 1 (Insufficienti) a 5 (Eccellenti)

33. Come valuterebbe le performance di governance della tua azienda (ad esempio, partnership basate sui principi di collaborazione e trasparenza, basate su una cultura aziendale responsabile, ecc.)? *

- Scala da 1 (Insufficienti) a 5 (Eccellenti)

34. Quanto è impegnata la vostra azienda nell'attuazione degli Obiettivi di Sviluppo Sostenibile dell'Agenda 2030 delle Nazioni Unite? *

- Scala da 1 (Non impegnata) a 5 (molto impegnata)

35. Quanto è importante il report di sostenibilità per la vostra azienda? *

- Scala da 1 (Non importante) a 5 (Molto importante)

36. Il bilancio di sostenibilità è uno strumento capace di comunicare le performance ESG? *

- Scala da 1 (Non adeguato) a 5 (Molto adeguato)

37. Il report di sostenibilità è uno strumento in grado di comunicare le relazioni tra le performance ESG aziendali e gli obiettivi SDG dell'ONU? *

- Scala da 1 (Non adeguato) a 5 (Molto adeguato)

38. Il report di sostenibilità è uno strumento per comunicare le connessioni tra le performance ESG e gli obiettivi SDG? *

- Scala da 1 (Not at all) a 5 (Molto forte)

39. In che misura coinvolge il suo team nella redazione del report di sostenibilità? *

- Scala da 1 (Nessun coinvolgimento) a 5 (Pieno coinvolgimento)

Messaggio finale:

Grazie per la partecipazione. Il vostro tempo e i vostri spunti sono molto apprezzati. Le vostre risposte contribuiranno in modo significativo al progresso della ricerca accademica sulla leadership e lo sviluppo sostenibile nelle PMI.

Per qualsiasi domanda o per ricevere un riepilogo dei risultati, non esitate a contattarmi all'indirizzo a.naseem@studenti.unibs.it.

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