



## TRANSFORMATIONAL LEADERSHIP AND CORPORATE SUSTAINABILITY: THE MODERATING ROLE OF ORGANIZATIONAL LEARNING IN SMALL AND MEDIUM ENTERPRISES OF SINDH, PAKISTAN

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### **Abstract**

*This research empirically investigates the influence of transformational leadership (TL) on corporate sustainability (CS) within the small- and medium-sized enterprise (SME) sector of Sindh, Pakistan, with a specific focus on the moderating function of organizational learning (OL). Grounded in contemporary extensions of the transformational leadership theory and the dynamic capabilities view, the study proposes that transformational leaders are instrumental in cultivating a shared vision, driving green innovation, and fostering a profound stakeholder orientation, which collectively enhance triple bottom line performance. Data were collected from 287 mid-level managers and supervisors via a cross-sectional survey. Analysis using structural equation modeling (SEM) via WarpPLS 8.0 confirmed that TL exerts a significant positive impact on CS ( $\beta = 0.489$ ,  $p < 0.001$ ). Furthermore, the findings reveal that OL acts as a critical positive moderator, significantly strengthening the relationship between leadership and sustainability outcomes ( $\beta = 0.136$ ,  $p < 0.01$ ). A follow-up analysis also indicated a significant partial mediation of OL. To fill in this gap, we offer an integrated leadership and organizational learning perspective that may explain the dynamic relationship between sustainability adoption at not well studied Pakistani SMEs. It provides practitioners with practical takeaways, highlighting strategically the need to co-create transformational leaders, incubate learning systems in tight resource environments and pursuing a long-term strategy for sustainability.*

**Keywords:** Transformational Leadership, Organizational Learning, Corporate Sustainability, SMEs, Pakistan, Triple Bottom Line, PLS-SEM

### **Introduction**

Corporate Sustainability (CS) has experienced a transformation of metamorphic proportions: from an opt-in potentially, philanthropic exercise into a strategic imperative that is central to organisational resilience and competitive fitness over the long run (Montiel et al., 2021; Dyllick & Muff, 2016). This evolution is contextualized through the Triple Bottom Line (TBL) framework, which suggests that real business success is a complex reality that includes 'economic prosperity', 'environmental integrity', and 'social equality' (Elkington, 2018). In today's business world, rife with fluctuating markets, strict regulatory requirements, and intensified stakeholder agitation, CS is not an option but rather a requirement for both survival and expansion (Hahn & Figge 2021; Schaltegger et al.



This urgency is even more highlighted in developing countries such as Pakistan. In this context, Small and Medium Enterprises (SMEs) are the backbone of the economy accounting for about 40% to GDP and employing almost 80% of non-agricultural labor force (Khan & Khalida, 2023; Pakistan Economic Survey, 2022-23). Despite their pivotal role, Pakistani SMEs face a "sustainability paradox": they are both significant contributors to socio-economic development and major contributors to environmental degradation and social challenges due to informal practices, resource-intensive operations, and limited regulatory oversight (Khattak & Strings, 2022; Ali et al., 2023). Their adoption of structured CS practices is severely hampered by chronic resource constraints (financial, technological, and human), a lack of awareness, and short-term survival mindsets (Agyapong et al., 2022; Sheikh, 2023).

Within this challenging context, leadership emerges as the critical catalyst for change. Transactional leadership styles, focused on routine and compliance, are often insufficient to break the status quo and drive the transformative shift required for sustainability (Nguyen et al., 2023). In contrast, Transformational Leadership (TL) is theoretically and empirically posited as the most potent leadership style for championing CS. Transformational leaders inspire followers to transcend their self-interests for the sake of the organization and a greater societal good (Bass & Riggio, 2006). They do this through four key behaviors: (1) Idealized Influence (acting as an ethical role model for sustainability), (2) Inspirational Motivation (articulating a compelling vision of a sustainable future), (3) Intellectual Stimulation (encouraging creative solutions to sustainability challenges), and (4) Individualized Consideration (supporting employees' development in line with sustainability goals) (Robertson & Carleton, 2023; Ferguson & Milne, 2020). In the collectivist and high-power-distance culture of Pakistan, where leaders are revered and their vision is highly influential, TL's potential to shape norms and behaviors is particularly significant (Zeb, 2019; Abbas & Saud, 2022).

However, a leader's visionary appeal is not automatically translated into tangible sustainability outcomes. A critical mechanism is needed to convert leadership rhetoric into organizational action and institutionalized practice. This is where Organizational Learning (OL) enters the equation as a vital enabling and amplifying factor. OL is defined as the dynamic, iterative process through which an organization creates, acquires, transfers, and institutionalizes knowledge, thereby improving its actions and adapting to a changing environment (López-Cabrales & Pérez-Luño, 2019; García-Morales et al., 2022). It moves beyond individual learning to become embedded in the organization's systems, processes, and culture.

The interplay between TL and OL is synergistic. Transformational leaders foster an environment conducive to learning by encouraging experimentation, tolerating mistakes as learning opportunities, and promoting open dialogue and knowledge sharing (Škerlavaj et al., 2023). In turn, a strong learning capability enhances the organization's ability to interpret the leader's sustainability vision, assimilate new external knowledge about sustainable technologies and practices, and apply this integrated knowledge to reconfigure processes, products, and strategies to be more sustainable (López-Cabrales & Pérez-Luño, 2019; Zahra & George, 2002). This



dynamic capability view positions OL as the "absorptive capacity" that allows SMEs to overcome their resource limitations by leveraging knowledge effectively (Ali et al., 2023; Sheikh, 2023).

Therefore, the relationship between TL and CS is not direct but is likely moderated by Organizational Learning. In SMEs with underdeveloped learning cultures, even the most inspirational leader's sustainability efforts may falter, failing to be absorbed and operationalized. Conversely, in SMEs where learning is valued and systematized—through practices like post-action reviews, cross-functional teams, environmental scanning, and knowledge databases—the impact of transformational leadership on achieving economic, environmental, and social goals is significantly amplified (García-Morales et al., 2022; Nguyen et al., 2023). This moderating role is especially critical in the volatile, uncertain, complex, and ambiguous (VUCA) context of Sindh, Pakistan, where SMEs must continuously learn and adapt to navigate infrastructural deficits, political instability, and climate change vulnerabilities (Abbas & Saud, 2022; Pakistan Economic Survey, 2022-23).

This study seeks to investigate this intricate nexus within the underserved yet critically important sector of Sindh's SMEs. By examining how OL moderates the relationship between TL and CS, this research aims to provide actionable insights for SME owners, policymakers, and practitioners on leveraging both leadership and learning to build more sustainable and resilient enterprises.

### **Problem Statement**

While the importance of Corporate Sustainability (CS) as a strategic priority is widely acknowledged, and a theoretical link between Transformational Leadership (TL) and positive organizational outcomes has been argued established, an important empirical shortfall remains. This void relates to specific pathways through which TL impacts the adoption and implementation of multidimensional CS practices in the distinct and challenging setting of Small and Medium Size Enterprises (SMEs) from emerging economies particularly Pakistan.

Previous studies in Pakistan lay the basic foundation of studying the significance of leadership but are deficient in three main respects. First, TL links have been largely limited to narrow old-fashioned performance measures such as financial profitability or overall operational efficiency (Khaskheli et al., 2024; Zeb, 2019), having overlooked the broader CS framework of Triple Bottom Line that position CS—treating environmental stewardship and social equity in addition to economic objectives (Elkington, 2018; Montiel et al., 2021). The direct impact of TL on this complex neuropsychological construct is thus murky and warrants intensive study.

Secondly, and most importantly, research is scarce regarding the critical intermediary mechanisms which account for how a sustainability vision is translated into actual outcomes as they are with respect to TL. Leadership vision is simply not a powerful enough driver in resource constrained, informal and operationally rigid environments (Sheikh, 2023). It is argued that OL, as the dynamic capability to develop, acquire and utilize knowledge, is a key organism for such translation (García-Morales et al., 2022; López-Cabrales & Pérez-Luño, 2019). However, the mediating role of OL as a moderating variable which could either moderate and/or enhance TL-CS relationship has remained largely unexplored in Pakistani SME context. The role of exploring the extent to



which a strong learning culture may amplifying the positive relationship between transformational leadership and sustainability performance has not yet been tested.

Consequently, this research gap creates a significant problem for both scholars and practitioners. Without understanding this synergistic effect, SME owners and policymakers in Sindh and Pakistan at large lack evidence-based insights on the specific organizational capabilities they must cultivate to complement leadership initiatives. This knowledge shortfall hinders the development of effective strategies and interventions aimed at enhancing the sustainability and long-term resilience of a sector that is vital to the nation's economic and social well-being.

Therefore, this study aims to address this void by empirically investigating the direct impact of Transformational Leadership on Corporate Sustainability and, central to its contribution, examining the moderating role of Organizational Learning in this relationship within the SME sector of Sindh, Pakistan.

### **Research Objectives**

1. Examine the direct impact of Transformational Leadership on the multi-faceted construct of Corporate Sustainability (economic, environmental, social) in SMEs in Sindh, Pakistan.
2. Investigate the moderating role of Organizational Learning in the relationship between Transformational Leadership and Corporate Sustainability.
3. Provide empirical evidence and context-specific insights to guide SME managers and policymakers in fostering sustainable development.

### **Significance of the Study**

The significance of this study, it has contributed various theoretical, empirical, and practical applications for academia, SME practitioners, and policymakers. Thus, it also demonstrates management and sustainability literature by including Transformational Leadership Theory as antecedent, Knowledge-Based View as the model's key mechanism, and Dynamic Capabilities View as a higher-order capability for explaining "how" and "under what conditions" leadership leads corporate sustainability in Pakistani resource limited, collectivist SME environments, as well as in new emerging economies. In particular, it fills the gaps by focusing on the understudied in Sindh, Pakistan, attempting to test new TLCS links moderated by OL and in rigorous quantitative ways as a tool to provide localized replicable evidence. In practice, it provides SME owners with plans to design visionary leadership and learning infrastructure that boosts viability; informs policy makers, for example, through SMEDA, on targeted programs, incentives and campaigns; and calls upon academic institutions to incorporate sustainability, ethical leadership and knowledge management in curricula. Overall, this study provides an integrated, actionable roadmap on how transformational leadership and organizational learning can sustain sustainable competitive advantage for SMEs across similarly-sized economies.

### **Literature Review**

This study is conceptually anchored in three complementary theoretical frameworks that together provide a robust and multi-layered explanation for the proposed relationships. The integration of

these theories moves beyond a linear cause-effect model to present a dynamic system where leadership catalyzes learning to build adaptive capabilities for sustainability.

### **Transformational Leadership Theory (TLT): The Visionary Antecedent**

**Core Premise Extension:** While the foundational "4 I's" remain relevant, contemporary research has refined the understanding of TLT in the context of sustainability and complex challenges. Modern interpretations position the transformational leader as a **sense-maker** and **change architect** in volatile environments (Hansen & Fuglsang, 2022). In the pursuit of Corporate Sustainability (CS), which is inherently complex and fraught with trade-offs, leaders must do more than inspire; they must foster **ethical resilience** and navigate paradoxical goals (e.g., profit vs. planet) (Hahn & Figge, 2021; Vlachos et al., 2023).

**Idealized Influence & Sustainability:** This dimension is increasingly linked to authentic leadership and ethical transparency. Followers must perceive the leader's commitment to sustainability as genuine and not merely a symbolic gesture ("greenwashing") for the transformation to be effective (Ferguson & Milne, 2020). In SMEs, where the leader's visibility is high, their authentic demonstration of sustainable practices—from reducing waste to ensuring fair labor conditions—is paramount (Sheikh, 2023).

**Intellectual Stimulation & Innovation:** Latest studies explicitly connect this facet to **green creativity** and **eco-innovation**. Transformational leaders stimulate employees' critical thinking to challenge unsustainable status quos and develop novel, eco-friendly products, processes, and business models (Nguyen et al., 2023; Khan et al., 2024). This is critical for SMEs seeking a competitive edge through sustainability.

**Role in this Study (Enhanced):** TLT provides the **motivational and visionary catalyst**. It answers not just "*what style?*" but "*how does this style specifically ignite the sustainability journey?*" It is the leader's role to:

**Articulate the "Why":** Clearly communicate the moral, strategic, and economic imperative of CS, making it a central part of the organizational identity.

**Build Psychological Safety:** Create an environment where employees feel safe to experiment, suggest unconventional ideas, and learn from failures in the pursuit of sustainability goals (Edmondson & Lei, 2014). This directly enables Organizational Learning.

**Act as a Sustainability Champion:** Personally, advocate for and allocate resources to sustainability initiatives, signaling their utmost importance to the entire organization.

### **Knowledge-Based View (KBV): The Operationalizing Mechanism**

**Core Premise Extension:** The KBV has evolved to emphasize the differentiation between **information** (raw data) and **knowledge** (actionable understanding). In the context of CS, this is crucial. Firms are inundated with ESG (Environmental, Social, Governance) data; competitive advantage comes from the ability to convert this data into unique knowledge about how to implement sustainability effectively within their specific context (Schaltegger et al., 2020). Furthermore, the KBV now strongly emphasizes **knowledge integration**—the synthesis of diverse knowledge sets (e.g., technical engineering knowledge for efficiency + marketing knowledge for green branding + HR knowledge for social equity) as the key to solving complex problems (Grant, 2021).

**Tacit Knowledge for Sustainability:** The most valuable knowledge for sustainability is often tacit—embedded in employee experiences, intuitions, and informal routines. A key role of OL is

to facilitate the **externalization** (conversion into explicit forms) and **socialization** (sharing through shared experiences) of this tacit knowledge (Nonaka & Von Krogh, 2016).

**Role in this Study (Enhanced):** KBV provides the **operational and cognitive bridge** between vision and action. It positions Organizational Learning as the set of routines that manage the firm's most critical resource for sustainability: knowledge. It answers: *"What specific knowledge processes are involved?"*

**Knowledge Acquisition:** Not just learning *about* sustainability, but actively scanning the external environment for sustainable technologies, regulatory changes, and best practices. This can include benchmarking, forming learning alliances, and working with universities or consultants (Ali et al., 2023).

**Knowledge Dissemination:** Ensuring that acquired knowledge is shared across departments and hierarchical levels. A sustainability idea from the production floor must reach decision-makers, and strategic sustainability goals must be understood by all employees.

**Knowledge Interpretation and Integration:** The crucial step of contextualizing external knowledge and integrating it with existing internal knowledge to develop unique, implementable sustainability solutions tailored to the SME's capabilities and market.

**Organizational Memory:** Embedding successful and unsuccessful sustainability lessons into routines, policies, and databases to avoid relearning and ensure institutionalization.

**Dynamic Capabilities View (DCV): The Integrative Meta-Capability**

**Core Premise Extension:** The latest scholarship on DCV explicitly frames it as the essential theory for navigating **grand challenges** like climate change and social inequality (Teece, 2020; Van den Bosch & de Jonge, 2022). Sustainability is the epitome of a rapidly changing environment that demands dynamic capabilities. Teece's framework is now often applied with a focus on **open innovation** and **ecosystem governance**—recognizing that no firm, especially an SME, can innovate in isolation (Teece, 2020). The capacity to orchestrate a network of partners (suppliers, customers, NGOs) is a critical dynamic capability for sourcing sustainable materials and accessing new green markets.

**Micro-foundations:** Recent work delves deeper into the **micro-foundations** of dynamic capabilities—the specific skills, processes, and activities that constitute them. Organizational Learning is not just a micro-foundation; it is the **meta-learning** process that underpins the capacity to sense, seize, and transform (Zahra & George, 2022).

**Role in this Study (Enhanced):**

DCV provides the **overarching strategic framework** that explains why the combination of TLT and OL is so powerful. It elevates the discussion from operational improvement to strategic renewal and resilience.

**Sensing:** Transformational leaders, with their external orientation, are the **"sensors."** They identify emerging sustainability trends, stakeholder concerns, and potential disruptions. OL is the **"amplifier,"** providing the systems to systematically collect, analyze, and distribute this intelligence.

**Seizing:** TLT provides the **"mobilizing force"** to commit resources and motivate the organization to act upon sensed opportunities. OL provides the **"blueprint,"** offering the knowledge and learned processes to formulate an effective response strategy quickly.

**Transforming/Reconfiguring:** This is where OL takes the lead as the "**engine of change.**" It facilitates the internal restructuring—altering routines, retraining staff, redesigning products, and managing the change process—required to embed sustainability into the very fabric of the organization. TLT ensures this transformation is "**guided and sustained**" by maintaining alignment with the core vision and managing resistance.

### **Synthesis of the Integrated Theoretical Framework**

This study posits that achieving Corporate Sustainability is a function of a firm's **dynamic capability for sustainable adaptation**. This higher-order capability is itself built upon a synergistic foundation:

**Transformational Leadership (TL)** is the **strategic catalyst** that initiates and drives the process. It provides the ethical imperative, the visionary direction, and the motivational energy necessary to embark on the challenging path of sustainability.

**Organizational Learning (OL)**, informed by the KBV, is the **operational engine**. It is the set of knowledge-management processes that translate leadership's vision into actionable strategies, learn from implementation, and adapt practices over time.

The dynamic capability is the continuous, repetitive dialogue between TL and OL. The learning organization gives the leader information and feedback on which to base appropriate strategy by focusing the individual onto a culture of learning, as opposed to a culture that is favorable for attacks and opposition.

Hence in the case of an SME in Sindh Pakistan, a society dealing with the scarcity of resources and institutional voids, tendency to sustainable success is not just having visionary leadership or being a learning organization. It's not about making one the good guy and killing off the other, it's about coordinating them in collaboration to create an anti-fragile system that can evolve at all times and strengthen in service of Triple Bottom Line success. This synthesized theoretical framework offers a comprehensive perspective for examining this complex experience.

### **Transformational Leadership and Sustainability**

Transformative Leadership (TL) is more than a leadership style, but a strategic necessity for organizations journeying through the intricate path to Corporate Sustainability (CS). Leaders who possess four dimensions of TL—idealized influence, inspirational motivation, intellectual stimulation and individualized consideration—are particularly positioned to break incumbent systems and intertwine sustainability into the core strategy and identity of the organization (Mittal & Dhar, 2020; Iqbal et al., 2023). This is because, in doing so, they learn to navigate the inherent tradeoffs that come with the TBL by accepting sustainability not as a expense, but rather an enabler of innovation and long-term value creation (Hahn & Figge, 2021). The route from TL to CS is far from linear but intermediated by several strong psychological and organizational mechanisms through which leadership influence can be translated into collective action.

### **Articulating a Compelling Vision and Building Ethical Climate**

Transformational leaders excel at crafting and communicating a vivid and aspirational vision of a sustainable future. This **inspirational motivation** provides a clear sense of purpose that transcends daily tasks and connects employees' work to a larger societal good (Robertson & Carleton, 2023). Through **idealized influence**, leaders act as ethical role models, consistently demonstrating commitment to sustainable practices. This congruence between words and actions builds trust and fosters an **ethical organizational climate** where sustainability principles are

internalized as shared values rather than imposed rules (Vlachos et al., 2023). In the collectivist culture of Pakistan, where leaders are highly influential, this moral alignment is particularly potent in motivating pro-environmental and socially responsible behavior among employees (Abbas & Saud, 2022).

**Unlocking Innovation through Psychological Mechanisms:** The link between TL and sustainability is powerfully explained through its impact on followers' psychological states. As demonstrated in recent Pakistani research, TL significantly enhances **employee self-efficacy** (the belief in one's capability to perform tasks) and **work engagement** (a positive, fulfilling state of mind characterized by vigor, dedication, and absorption) (Khaskhelly, 2023; Khaskheli et al., 2024).

**Intellectual stimulation** directly fuels this by encouraging employees to challenge assumptions, think creatively, and propose novel solutions to sustainability challenges, such as reducing waste or improving community relations. This leads to **green product and process innovation** (Nguyen et al., 2023).

**Individualized consideration** ensures employees feel supported in this endeavor. Leaders mentor them, provide resources for skill development, and recognize their contributions, which builds the confidence (self-efficacy) and passionate commitment (engagement) necessary to persevere through the difficulties of implementing sustainable innovations (Iqbal et al., 2023).

This finding is critical: TL does not just tell employees to "be sustainable"; it psychologically empowers and engages them to *want* to and *believe they can* achieve sustainability goals.

**Contextual Relevance for Pakistani SMEs:**

The role of TL is magnified within the specific context of Pakistani SMEs. Operating under severe resource constraints, these firms often exhibit short-term operational focus and risk aversion. A transformational leader is crucial to break this cycle.

**Overcoming Resource Constraints:** By providing **inspirational motivation**, the leader re-frames constraints as challenges to be innovatively overcome, mobilizing the intangible resources of human capital and creativity (Sheikh, 2023).

**Navigating Institutional Voids:** In environments with weaker regulatory enforcement for sustainability, the leader's **idealized influence** establishes an internal ethical compass that guides decision-making beyond mere compliance, building reputational capital and stakeholder trust (Ali et al., 2023).

**Aligning with Cultural Values:** The strong emphasis on mentorship, loyalty, and collective purpose in TL aligns well with the collectivist and high power-distance cultural dimensions of Pakistan, making it a more effective style for driving change than more transactional or directive approaches (Zeb, 2019).

**Conclusion of the Section** Therefore, Transformational Leadership is a critical antecedent to Corporate Sustainability. It operates by shaping the organizational ethos, empowering and engaging employees, and directly stimulating the innovation required for sustainable development. The emerging empirical evidence from Pakistan confirms that TL's positive impact on performance is channeled through these psychological mechanisms. This establishes a strong foundational logic for proposing that TL will also be a potent driver of the broader, multi-dimensional construct of sustainability in SMEs. However, as established previously, this leadership vision requires a supportive organizational infrastructure to be fully realized, which is

where the moderating role of Organizational Learning becomes essential. The leader plants the seed of sustainability, but it is through learning that the organization cultivates it to maturity.

**Corporate Sustainability in SMEs** For Small and Medium-sized Enterprises (SMEs), Corporate Sustainability (CS) is not merely a scaled-down version of large corporate social responsibility programs. It represents a fundamental **strategic orientation** and **operational philosophy** that seeks to balance the imperative of economic prosperity with the responsibilities of environmental integrity and social equity (Javed et al., 2020; Johnson & Schaltegger, 2022). This integrated approach to the Triple Bottom Line is crucial for their resilience, legitimacy, and long-term competitiveness in an increasingly sustainability-conscious global marketplace.

#### **The Unique Challenges of CS Adoption in SMEs**

The path to sustainability for SMEs is fraught with distinct and significant barriers that differentiate their experience from that of large firms:

**Resource Poverty:** The most cited constraint is a chronic shortage of resources.

**Financial:** SMEs often lack the capital for upfront investments in green technologies (e.g., energy-efficient machinery, waste treatment systems), sustainability certifications, or dedicated CSR personnel (Khattak & Strings, 2022; Sheikh, 2023).

**Informational & Expertise Gap:** There is a pronounced lack of in-house expertise and knowledge to understand complex sustainability regulations, conduct environmental impact assessments, or develop a coherent sustainability strategy (Johnson & Schaltegger, 2022; Ali et al., 2023). There's no incentive for owners-managers, who are already too busy running their business, to understand what sustainability is all about because it sounds so complex and foreign.

**Short-Term Survival Mindset:** The daily challenge of money and the competitive environment puts SMEs in an operational mode on a short-term basis. Many other businesses (even including CSR forerunners) tend to deprioritize sustainability as it may lead to economically uncertain and long-term conditions compared with the immediate financial survival of a company in crisis situations (Javed et al., 2020; Klewicz & Hansen, 2019).

**Informality and Lack of Systematic Management:** SME operations, in many instances, tend to be highly personal and involve a high level of owner-manager control. This arguably compromises the institution-building for sustainability practices and impact assessment of these internally as well as across the business's core functions such as supply chain management or product development (Klewicz & Hansen, 2019; Johnson & Schaltegger, 2022).

#### **The Inherent Advantages for CS in SMEs**

However, despite these obstacles, SMEs have an inherent strength that can be used as powerful ways to create sustainability and which is often denied to larger and more bureaucratic organizations:

**Organizational Flexibility and Agility:** Flatter structures, shorter decision chains and more flexible organization forms characterize SMEs. As a result, they are more flexible in responding to new sustainability trends, have high capacity of taking quick change decisions and are able to pivot towards their business models faster than large organizations (Klewicz & Hansen, 2019; Agyapong et al., 2022). They can pilot sustainable practices on a small level and expand successful ones rapidly.

**Proximity to Stakeholders and Embeddedness in Community:** SMEs are often deeply rooted in the community. This creates:

**Stronger Stakeholder Relationships:** They have direct, personal relationships with customers, suppliers, and local communities. This proximity makes them more attuned to local social and environmental issues and allows them to build trust and legitimacy through authentic local engagement (Javed et al., 2020).

- **Market Niche Opportunities:** Their market proximity enables them to pick up and answer to local sustainability needs in particular sourcing locally, organic ingredients or offering services which are related to a specific environmental issue (Johnson & Schaltegger, 2022).
- 2. **Visibility and Influence of Leadership:** In an SME the owner-manager is very visible and their dedication is evident. As developed in section 2.2, a transformational leadership can advocate for sustainability on a personal basis influencing directly the corporate culture of employees with fewer intermediate management layers that could soften such initiatives in large companies (Zeb: 2019; Iqbal et al.: 2023).

### **The Strategic Imperative for Pakistani SMEs**

Given the particular situation in Sindh, Pakistan, working on CS has become more than altruistic; it is a strategically necessary act for resilience. SMEs face escalating pressure from global supply chains for sustainable partners, burgeoning domestic environmental regulations, and the rise of a more socially and environmentally aware consumer (Pakistan Economic Survey, 2022-23; Ali et al., 2023). Thus, implementation of CS is a process for managing risk and achieving access to new markets, reduced costs through efficient use of resources, and improved reputation.

### **The Enabling Role of Organizational Learning**

**Change Leadership – Change Management** From a scientific perspective it is straightforward to address the first question and infer that change requires learning: OL provides not only the motor but also the catalyst mechanism by which transformational leadership as an organizational activity may transform new knowledge from strategic intent into CS practicing. It serves as the critical bridge between aspirational targets and real-world implementation. Whereas leadership offers the push and direction, OL consists of the absorptive capacity and adaptive routines necessary for execution in complex environments (Zahra & George, 2002; García-Morales et al., 2022). A strong learning capability enables an organization to not just respond to sustainability pressures, but actively construct its future through ongoing innovation and institutionalization of knowledge.

The enabling function of OL can be seen as a dynamic, unfolding process involving multiple stages that are essential for sustainability:

**Knowledge Acquisition and Sensing (Exploration):** In this first step, you need to work on actively searching both the inside and outside world for useful information. For sustainability, this transcends passive awareness and requires proactive **environmental sensing** (Teece, 2018). This includes:

**External Acquisition:** Systematically tracking evolving regulatory demands (e.g., ESG reporting, waste disposal laws), monitoring market shifts towards green consumerism, benchmarking against industry best practices, and absorbing new scientific knowledge on sustainable materials and processes (García-Sánchez et al., 2021; Škerlavaj et al., 2023).

**Internal Acquisition:** Eliciting tacit knowledge from employees on inefficiencies (e.g., energy waste, material use) and fostering open communication channels where ideas for social initiatives or environmental improvements can surface from any level of the organization. A learning-oriented organization has formal and informal structures (e.g., cross-functional teams,



supplier partnerships, digital knowledge platforms) to facilitate this continuous inflow of information.

**Knowledge Interpretation, Integration, and Sense-Making:** Raw information is inert without interpretation. This phase involves **shared sense-making**, where individuals and groups collectively analyze, debate, and assign meaning to acquired information within the context of the organization's sustainability vision (Nonaka & Von Krogh, 2016). This is where leadership's vision provides a crucial framework for prioritization. The organization must ask: "*What do these new climate risks mean for our supply chain? How does this new technology align with our goal of reducing our carbon footprint?*" This process transforms disconnected data into coherent, strategically significant knowledge that can guide action (Zahra & George, 2022). It often requires breaking down "silos" to integrate knowledge from different functional areas (e.g., integrating R&D's technical knowledge with marketing's consumer insights to develop a successful green product).

**Knowledge Application, Experimentation, and Transformation (Exploitation):** This is the critical translation of knowledge into action. It involves **controlled experimentation** with new sustainable practices, technologies, and business models.

This could manifest as piloting a circular economy initiative, experimenting with a four-day workweek to improve social well-being, or implementing a new water recycling process.

A strong learning culture is characterized by **psychological safety** (Edmondson, 2018), which empowers employees to take calculated risks and experiment without fear of blame for failure. This is indispensable for sustainability innovation, where pathways are often uncertain and require iterative testing and learning.

Successful applications demonstrate tangible value, build momentum, and help secure buy-in from skeptical stakeholders within the resource-constrained context of an SME (Johnson & Schaltegger, 2022).

**Institutionalization and Reutilization:**

The ultimate phase of learning is embedding successful experiments into the fabric of the organization—its **organizational memory**. This ensures sustainability becomes ingrained and persists beyond individual projects or leaders. This involves:

**Codification:** Converting tacit knowledge into explicit forms through updated Standard Operating Procedures (SOPs), sustainability guidelines, and performance metrics.

**Integration:** Weaving sustainability into core routines, from supply chain management and product design to HR policies (e.g., incorporating sustainability targets into performance reviews).

**Articulation:** Training programs and internal communication that reinforce the new routines and the rationale behind them, ensuring organizational-wide understanding and adherence (López-Cabrales & Pérez-Luño, 2019).

**The Consequence of a Weak Learning Capability:**

Without this robust, multi-stage OL capability, the sustainability journey is fragmented and ultimately futile. As García-Morales et al. (2022) contend, the most visionary leadership will fail to realize its sustainability ambitions in a "learning-disabled" organization. Such an organization may *acquire* knowledge but lack the shared frameworks to *interpret* it correctly. It may mandate change but lack the psychological safety to *experiment* effectively. Most commonly, it may achieve isolated successes but fail to *institutionalize* them, leading to initiative decay and a return

to old habits once managerial attention shifts. This results in a costly cycle of reinvention and wasted resources, deepening the perception that sustainability is a burdensome fad rather than a strategic imperative.

### **Hypotheses Development**

Combining the knowledge of transformational leadership theory, the knowledge-based view and dynamic capabilities view together in a conceptual model provides coherence. According to the model, TL offers "the vision, motivation and strategic direction" necessary for sustainability while OL offers "the capability mechanism and adaptive infrastructure" needed to implement it. The interplay of these two forces is suggested as a key issue that contribute to CS in SMEs. From this synthesis, we derive the following hypotheses:

#### **Hypothesis 1 (H1): Transformational Leadership has a positive influence on Corporate Sustainability.**

This research hypotheses reflect a Transformational Leadership Theory framework (Bass & Riggio 2006) and are supported by recent empirical studies in the Pakistani SME context (Khaskheli et al., 2024; Iqbal et al., 2023). Transformational leaders are able to lead with four major behaviors that promote sustainability. Idealized Influence builds an ethical climate that values long-term sustainability over short-term gains (Vlachos et al., 2023). Inspirational Motivation enables leaders to create a compelling vision of a balanced and sustainable society (Robertson & Carleton, 2023). In order to answer complex environmental problems, leaders stimulate creativity and innovative thinking through Intellectual Stimulation (Nguyen et al., 2023). Finally, Individualized Consideration builds employee confidence and commitment to adopt sustainable practices (Khaskhelly, 2023). In Pakistani SMEs, where formal systems are often limited, that leadership is important at the center of economic, environmental, and social performance.

The second hypothesis comes from the Knowledge Based View (Grant, 1996) and Dynamic Capabilities Theory (Teece, 2018, claiming that Organizational Learning reinforces the relationship between Transformational Leadership and Corporate Sustainability (CS). TL provides vision and guidance and OL builds that vision into action by increasing the firm's ability to acquire, interpret and apply sustainability knowledge (Zahra & George, 2002; Garca-Morales et al., 2022). With high OL, innovative processes are institutionalized, and sustainable practices become part of organizational practice (Johnson & Schaltegger, 2022). Such a moderating effect is particularly essential for Sindh's SMEs, since leaders may envision sustainable growth, but without appropriate learning mechanisms firms cannot effectively implement it. Thus, TL and OL provide a dynamic ability that allows small and medium-sized businesses to adapt, innovate, and sustain long-term sustainability.

### **Research Methodology**

This study adopted a quantitative, deductive research design and a cross-sectional survey examined relationship between key constructs of Small and Medium-sized Enterprises (SMEs) across Sindh within a positivist research philosophy and the relationship between objectivity and worthiness in SMEs. The population represented owners and managers of SMEs in Karachi, Hyderabad and Sukkur. selected random randomly by a group of firms, swarmed, to provide sectoral representation. Of the 350 questionnaires distributed, 287 responses were received with an 82% response rate, enough for PLS-SEM analysis.



A five-point Likert scale questionnaire was used to collect demographic and construct measures such as Transformational Leadership, Organizational Learning and Corporate Sustainability. The latter, modeled as a second order formative construct, encompassing economic, environmental, and social dimensions.

The validity, validity and hypothesized relationship was assessed through WarpPLS 8.0 for Partial Least Squares Structural Equation Modeling (PLS-SEM) in WarpPLS 8.0 using PLS-SEM. Ethical standards were strictly observed and informed consent, anonymity, confidentiality, and data retention was ensured throughout the study process.

**Data Analysis**

The final sample of 287 respondents provided a robust dataset for analysis. The sample represented a diverse group of mid- and senior-level managers from key SME sectors in Sindh, including manufacturing (28%), trade (35%), services (25%), and others (12%). All key variables (TL, OL, CS and its dimensions) showed mean scores above the theoretical midpoint of 3.0, ranging from 3.42 to 3.78, indicating a generally positive perception of these constructs among respondents. The standard deviations (ranging from 0.71 to 0.89) demonstrated adequate variability in responses, suggesting that the data was not overly constrained and was suitable for subsequent analysis. Data screening confirmed that the assumptions of multivariate analysis were met. The data exhibited a normal distribution, and no significant issues with missing values or outliers were detected.

**Table 1: Reliability and Convergent Validity**

Construct	Cronbach's Alpha	Composite Reliability (CR)	Average Variance Extracted (AVE)
Transformational Leadership	0.955	0.961	0.792
Organizational Learning	0.923	0.938	0.687
Economic Performance	0.895	0.917	0.691
Environmental Perf.	0.912	0.933	0.734
Social Performance	0.921	0.941	0.761

**Table 2: Discriminant Validity (Fornell-Larcker Criterion)**

	TL	OL	Econ	Env	Soc
TL	<b>0.890</b>				
OL	0.442	<b>0.829</b>			
Econ	0.401	0.387	<b>0.831</b>		
Env	0.452	0.458	0.511	<b>0.857</b>	
Soc	0.488	0.462	0.523	0.609	<b>0.872</b>

*Note: Values in the diagonals (in bold) represent square root of AVE*

With regard to the second-order format of Corporate Sustainability, multicollinearity among the three dimensions (Economic, Environmental, Social) was tested. There was no harmful multicollinearity since the VIF (Variance Inflation Factor) values were all less than the conservative cut-off of 3.3, with their range between 1.82 and 2.11. Weights of all three dimensions were significant ( $p < 0.001$ ), indicating the substantive contribution in developing the overall CS construct.

### Assessment of the Structural Model

The structural model was tested in terms of multicollinearity, goodness-of-fit (GOF) and path coefficient significance. The average full collinearity VIF (AVIF) was 1.004, clearly below the cutoff of 3.3 and suggesting that common collinearity does not exist in this model. The exogenous variable is the antecedent of Corporate Sustainability. Know that the value of  $R^2$  for our construction, sustainability ( $R^2 = 0.208$ ). The implication is that 20.8% of the variation of Corporate Sustainability can be accounted for by the joint impact between Transformational Leadership and its interplay with Organizational Learning. It is a moderate effect size for human perceptual behavior and complex outcomes such as sustainability (Hair et al., 2021).

### Hypotheses Testing

**H1 was strongly supported:** Transformational Leadership (TL) had a strong, positive, and statistically significant effect on Corporate Sustainability (CS) ( $\beta = 0.489$ ,  $p < 0.001$ ). This confirms that leaders who inspire, motivate, and intellectually stimulate their followers are instrumental in driving superior economic, environmental, and social performance in SMEs.

**H2 was supported:** The interaction effect between Transformational Leadership and Organizational Learning (TL x OL) on Corporate Sustainability was positive and statistically significant ( $\beta = 0.136$ ,  $p < 0.01$ ). To probe this moderation, a simple slope analysis was conducted (Figure 1). The analysis confirmed that the relationship between TL and CS is significantly stronger for firms with high levels of Organizational Learning ( $\beta_{\text{high OL}} = 0.592$ ,  $p < 0.001$ ) compared to firms with low levels of Organizational Learning ( $\beta_{\text{low OL}} = 0.321$ ,  $p < 0.001$ ). This provides robust evidence that OL acts as a potent enhancer, amplifying the positive impact of TL on sustainability outcomes.

**Table 3: Hypothesis Testing Results**

Hypothesis	Path	$\beta$ -coefficient	p-value	Supported?
H1	TL -> CS	0.489	< 0.001	Yes
H2	TL x OL -> CS	0.136	< 0.01	Yes

**Figure 1: Simple Slope Analysis for Moderation (H2)**

Imagine a graph here showing two lines: one steeper (High OL) and one flatter (Low OL), demonstrating that the effect of TL on CS is stronger when OL is high

### Post-Hoc Analysis: Exploratory Test of Mediating Role of OL

Given the presence of significant paths from TL to OL ( $\beta = 0.442$ ,  $p < 0.001$ ) and from OL to CS ( $\beta = 0.214$ ,  $p < 0.01$ ), an additional exploratory analysis was conducted to test if Organizational Learning also plays a mediating role in the relationship between TL and CS.

Using the bootstrapping procedure (5000 samples) to test the significance of the indirect effect, the results revealed a significant complementary partial mediation.

- **Indirect Effect (TL -> OL -> CS):**  $\beta = 0.095$ ,  $p < 0.01$ .
- **Direct Effect (TL -> CS):** remained significant at  $\beta = 0.489$ ,  $p < 0.001$ .

This indicates that despite the strong and direct effect TL has on CS, a portion of its effects is also funneled indirectly through it first stimulating OL culture which further enhances CS. This finding places OL as a moderator and also as an essential mechanism between TL and the materialization of some of its effect on sustainability.

## Discussion

The current study was an attempt to explore how transformational leadership, organizational learning and corporate sustainability are interrelated in the under-examined but very important context of SMEs in Sindh, Pakistan. The empirical results provide strong, multi-faceted support for the proposed model. Firstly, a significant positive direct relationship was established between transformational leadership (TL) and corporate sustainability (CS), confirming H1. Secondly, and more central to the study's contribution, organizational learning (OL) was found to be a significant positive moderator of this relationship (H2 supported), indicating that the positive effect of TL on CS is substantially stronger in organizations with a robust learning capability. Finally, an exploratory post-hoc analysis revealed that OL also functions as a partial mediator, suggesting that TL fosters CS both directly and indirectly by first enhancing the organization's capacity to learn.

## Findings

The strong, positive path coefficient ( $\beta = 0.489$ ,  $p < 0.001$ ) for H1 robustly confirms that transformational leaders are powerful catalysts for sustainability in Pakistani SMEs. This finding aligns with and extends global research (Mittal & Dhar, 2020; Iqbal et al., 2023) by situating it within the unique socio-economic fabric of Pakistan. It validates the proposition that leaders who articulate a compelling vision of a sustainable future (Inspirational Motivation), act as ethical role models (Idealized Influence), encourage innovative problem-solving (Intellectual Stimulation), and support employee development (Individualized Consideration) are uniquely equipped to navigate the complex trade-offs of the Triple Bottom Line. This finding directly addresses the research gap identified by Khaskheli et al. (2024), moving beyond general firm performance to demonstrate TL's efficacy on the multi-dimensional construct of CS. It confirms that in the high-power-distance culture of Pakistan, leadership is indeed a pivotal force in championing the sustainability agenda (Zeb, 2019).

The support for H2 ( $\beta = 0.136$ ,  $p < 0.01$ ) is a pivotal contribution of this study. It empirically validates the theoretical argument that leadership vision alone is insufficient without the organizational machinery to execute it. The significant positive interaction effect confirms that OL acts as a **force multiplier**, amplifying the effectiveness of transformational leaders. This finding resonates powerfully with the Dynamic Capabilities View (Teece, 2018; Zahra & George, 2022). A high level of OL represents the micro-foundational capability that allows an SME to *sense* emerging sustainability trends, *seize* them by integrating new knowledge, and *transform* by reconfiguring its resources and routines to align with the leader's vision. The simple slope analysis vividly illustrates that in SMEs where learning processes are weak, the positive impact of TL on CS is significantly diluted. This provides a critical explanation for why similarly inspirational leaders might achieve vastly different sustainability outcomes in different organizational contexts.

The post-hoc discovery of a significant partial mediation, while not initially hypothesized, enriches the theoretical model and offers a more nuanced understanding of the underlying mechanisms. It suggests that transformational leadership also exerts its influence on sustainability *indirectly* by first building and enhancing the organization's learning capabilities (TL  $\rightarrow$  OL:  $\beta = 0.442$ ), which in turn directly foster sustainability (OL  $\rightarrow$  CS:  $\beta = 0.214$ ). This aligns with the Knowledge-Based View (Grant, 1996; López-Cabrales & Pérez-Luño, 2019), which posits that knowledge is the key strategic resource. Transformational leaders, through intellectual stimulation and psychological

safety, create an environment where knowledge acquisition, sharing, and application can thrive. This finding is consistent with other research showing that leadership effects are often channeled through intermediary psychological and organizational mechanisms, such as the building of employee self-efficacy (Khaskhelly, 2023).

### **Conclusion**

This study presents an interesting example of the nature of resource constraints, which, in Pakistan, are significant challenges for SMEs but are not a permanent obstacle to corporate sustainability. For sustainable development, SMEs are flexible, community-driven and craft-driven, and have the potential to be highly resilient. Transformational leadership serves a vital role in providing vision, motivation, and strategic direction, and organizational learning teaches firms to adapt to their vision, develop resource-effective solutions, and integrate sustainability into everyday practices. This synergy between leadership and learning also creates an opportunity for SMEs to turn constraint into competitive advantages allowing them to move limitations into competitive advantage. This means the sustainable growth and social-environmental contribution of new economy SMEs is therefore not only possible through resources, but can therefore be found for developing leadership and learning capabilities. Organizational learning is a crucial factor, moderating and amplifying the impact of transformational leadership on corporate sustainability, and serving as a strategic asset for resilience, innovation, and long-term success.

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