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Strategic Pathways to Corporate Sustainability: The Roles of Transformational Leadership, Knowledge Sharing, and Innovation

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Abstract: Corporate sustainability has emerged as a critical imperative for firms navigating volatile markets and ecological constraints, yet the mechanisms linking organizational practices to sustainability outcomes remain underexplored, particularly in developing economies. Drawing on the resource-based view and dynamic capabilities theory, this paper examines how transformational leadership and knowledge sharing synergistically enhance innovation capability, which in turn fosters environmental dynamism and corporate sustainability performance. Using a structured questionnaire within a cross-sectional design to gather data from 140 Moroccan SMEs, data were collected via an online questionnaire from 140 Moroccan SME owners and managers, with hypotheses tested using partial least squares structural equation modeling (PLS-SEM). The results show that knowledge sharing, and transformational leadership significantly strengthen innovation capability. Innovation capability further drives environmental dynamism, which positively impacts sustainability performance. These findings advance theory by integrating knowledge-based, leadership, and dynamic capability perspectives into a novel pathway for achieving sustainability goals. The study underscores the necessity for SMEs in developing nations to cultivate leadership that inspires knowledge exchange and adaptive innovation, enabling resilience amid ecological and market shifts. By highlighting these internal drivers, the research offers actionable insights for SMEs and policymakers seeking to align business innovation strategies with sustainability objectives and pro-environmental transformation in line with the UN Sustainable Development Goals (SDGs).

Keywords: corporate sustainability performance; environmental dynamism; innovation capability; knowledge sharing; transformational leadership; Morocco; SME; sustainable innovation; SDGs

Academic Editor: Fabrizio D'Ascenzo

Received: 4 May 2025
Revised: 5 June 2025
Accepted: 6 June 2025
Published: 16 June 2025

Citation: Alqatan, A.; Simmou, W.; Shehadeh, M.; AlReshaid, F.; Elmarzouky, M.; Shohaieb, D. Strategic Pathways to Corporate Sustainability: The Roles of Transformational Leadership, Knowledge Sharing, and Innovation. *Sustainability* **2025**, *17*, 5547. https://doi.org/10.3390/su17125547

1. Introduction

Sustainable development is a widely recognized societal framework that promotes the integration of economic, social, and environmental concerns across all areas and levels

of society, both in the immediate and long-term [1]. Corporate sustainability involves applying the concept of sustainable development, which emphasizes that current economic progress should not hinder future generations from meeting their own needs [2]. The achievement of the United Nations' Sustainable Development Goals (SDGs) concerning resource efficiency, environmental sustainability, and human well-being largely hinges on the prevailing consumption and production models adopted by countries, industries, and companies [3]. Businesses are committed to realizing and upholding sustainability to remain relevant in the dynamic environment. Companies that engage with sustainability issues inevitably encounter real and unavoidable tensions [4]. The changing business environment presents novel and re-emerging challenges that require organizations to embrace environmental dynamism to sustain their operations [2]. Sustaining a company's market position and leadership is the strategic management teams and stakeholders' collective responsibility [5]. Committing to attaining and upholding corporate sustainability is crucial to realizing a heightened performance [6]. Corporate sustainability performance is a concern to many business organizations struggling with environmental dynamism, transformational leadership, and knowledge sharing, as well as the associated challenges. Understanding the synergistic roles of these variables is crucial to sustaining an organization's corporate sustainability [7]. Improving transformational leadership, knowledge sharing and environmental dynamism are critical to increasing corporate sustainability performance by creating long-term stakeholder value that is essential for business growth and expansion. Corporate sustainability performance is crucial for a business to thrive in a fast-changing and unpredictable market environment. For a company to attain sustainable goals, it ought to focus on the three pillars of corporate sustainability, namely the social responsibility pillar, the economic pillar, and the environmental pillar [8,9].

The research context for the study is Morocco. The selection of Morocco as the focal context for this study is both timely and significant. As an emerging market, Morocco's economy heavily relies on Small and Medium-sized Enterprises (SMEs), which constitute over 90% of all enterprises, contributing more than 20% to the nation's GDP, account for over 30% of exports, and provide 21.6% of total employment according to UNODC ROMENA in 2023. Despite their pivotal role, Moroccan SMEs face challenges in resource management, which can impede their growth and sustainability. This study addresses a notable gap in the literature by focusing on the interplay of transformational leadership, knowledge sharing, and innovation capabilities within Moroccan SMEs. These areas have been underexplored, particularly in developing country contexts [10].

Furthermore, while extensive research has been conducted on large corporations, the applicability of these findings to SMEs remains uncertain [11]. SMEs differ markedly from larger firms regarding organizational structure, resource availability, and strategic flexibility [12]. The dynamic nature of the current business environment necessitates that SMEs, especially in developing economies like Morocco, adopt innovative practices to remain competitive. However, the existing literature often overlooks the unique challenges and opportunities SMEs encounter in this regard [13]. By concentrating on Moroccan SMEs, this study contributes to a deeper understanding of how transformational leadership and knowledge sharing can drive innovation and offers practical insights for policymakers and business leaders aiming to bolster the SME sector's contribution to economic development.

Small and Medium-sized enterprises (SMEs) operate in dynamic market environments that oblige them to pursue and uphold corporate sustainability to realize the desired performance essential for sustainable growth. These businesses are keen on attaining economic growth by making profits while at the same time doing social good to the surrounding communities. Corporate sustainability can be achieved by reducing SMEs' environmental impact in their markets [14]. SMEs also engage in practices that benefit the people, in-

cluding the employees, consumers, and the wider community. The economic aspect of corporate sustainability focuses on maintaining transparent and honest governance and accounting practices while ensuring the organization remains compliant.

Knowledge sharing empowers organizational members to share vital information. Attaining and sustaining high corporate sustainable performance requires a company to create and uphold organizational cultures that foster knowledge sharing. An empowered workforce is keen on taking the initiative to contribute to the corporate well-being of the company without being micromanaged [14]. Employees rely on top management for strategic direction and leadership. However, this can be enhanced by empowering them with essential information to make informed choices and decisions that create stakeholder value through corporate sustainability. Organizational structures and processes supporting information sharing are vital for a company to thrive in its efforts to have a cohesive and unified team motivated to add value to its corporate sustainability endeavors [15]. Employees learn the correct way of doing things when they are empowered with the relevant knowledge. This practice encourages them to remain committed and engaged in organizational matters geared at attaining corporate sustainability.

Transformational leadership discourages micromanagement and encourages leaders to influence their teams through their behaviors. Such efforts are essential in inspiring the organizational members to perform beyond their capabilities, thus adding value to the company. It encourages collectivism for the employees to join efforts to realize the overall vision [16]. With a vision of attaining a high corporate sustainable performance, transformational leadership influences the employees to mirror their leaders, combining their efforts to meet the business's environmental, economic, and social goals. Transformational leadership is characterized by four elements a leader can use to inspire and influence organizational members. These include idealized influence, intellectual stimulation, individualized consideration, and inspirational motivation. A leader who values transformational leadership is committed to being a role model to followers, thus having an idealized influence on them [14]. Intellectual stimulation inspires a leader to provide learning and growth opportunities to the followers while encouraging them to make suggestions and contributions on the best way to improve the firm's corporate sustainability performance [17].

Equally important, the individualized aspect of transformational leadership is evident when a leader develops a personalized interest in employees at the individual level to help them realize their desired growth and development. The inspirational motivation tenet of transformational leadership challenges the leader to inspire and motivate the followers while encouraging them to pursue strategies that create stakeholder value to realize a heightened corporate sustainable performance [18]. Focusing on upholding transformational leadership in SMEs is essential to leveraging the four elements, defining it as necessary for creating a conducive environment to attain and foster sustainable corporate performance. Focusing on improving in the four areas combined with knowledge sharing and environmental dynamism is crucial to promoting the desired corporate sustainable performance in SMEs.

SMEs operate in a fast-changing market environment that affects their operations. Adapting to the changing climate is crucial for a business to sustain its viability. Enterprises that are rigid to environmental dynamism are bound to fail in their endeavors to maintain their operations. A critical analysis of the external environment under which a business operates offers insights that can help the management team make informed strategic decisions to remain relevant and profitable [19]. The changing external business environment presents new challenges that require SMEs to adjust their strategies to sustain a high corporate sustainable performance [20]. The ability of a business organization to adapt to the changing market environment can further be enhanced through information sharing and

transformational leadership to help it realize corporate sustainability [18]. The synergetic roles of information sharing, transformational leadership, and a firm's ability to adapt to the external environment are essential to foster high corporate sustainable performance.

However, the challenges in SME leadership, adaptation to the external environment, and access to critical information have thwarted their efforts to uphold a high corporate sustainable performance characterized by innovation. A firm's innovation capability differentiates it from its competitors, opening it to sustainable competitive advantages to realize market leadership and achieve the desired growth. Innovation is essential for an organization to foster its corporate sustainability in a dynamic environment [18]. An organization's capability plays a crucial role in shaping environmental dynamism. It determines a company's ability to adjust to the changing environment by developing and improving technologies and new ideas to fit in the new environment. The rate at which the external business environment changes can undermine SMEs' innovation capability, making it vital for companies to invest in innovation to remain relevant in the dynamic market environment [14]. Environmental dynamism influences SMEs' corporate sustainability performance. The changing climate presents new challenges and opportunities that organizations must exploit to realize innovation in their corporate sustainability efforts. A critical analysis of how knowledge sharing and transformational leadership enhance SME's innovation capability, how the innovation capability influences a firm's environmental dynamism, and the impact of dynamism on the firm's corporate sustainability is vital to appreciate the synergetic roles of the three variables [6]. Therefore, this paper addresses the following research questions:

1. How do knowledge sharing and transformational leadership collectively enhance organizational innovation capability?
2. What role does innovation capability play in shaping environmental dynamism?
3. How does environmental dynamism influence corporate sustainability performance?

The paper proceeds as follows: Section 2 presents the theoretical and conceptual frameworks. Section 3 describes the materials and methods. Section 4 reports the results. Section 5 discusses the findings, Section 6 concludes the study, and Section 7 includes the implications.

2. Theoretical and Conceptual Frameworks

2.1. Theory Resource-Based View and Dynamic Capabilities Theory

The resource-based view (RBV) and dynamic capabilities (DC) theories are adopted to establish the theoretical underpinnings of this study. These theories are selected because they directly touch on the organizational resources and capabilities, essential aspects that shape a firm's innovation capability and ability to fit in the changing market environment while sustaining corporate sustainability [21–23]. The resource-based view theory focuses on the internal resources that help a business fit in the external environment while helping it attain competitive advantages over its rivals [24]. The dynamic capabilities theory focuses on an organization's capability to integrate and manage its internal and external competencies to address the dynamic business environment affecting its operations [25,26]. Therefore, these theories provide a theoretical underpinning to understand and answer the research questions that seek to establish how transformational leadership and knowledge sharing enhance organizational innovation capability, innovation capability's role in shaping environmental dynamism, and how environmental dynamism influences corporate sustainability performance.

The resource-based view theory is crucial in evaluating an organization's internal resources that contribute to its sustainable competitive advantage. Barney's (1991) seminal work introduces the RBV framework, emphasizing that a firm's internal resources—if

valuable, rare, inimitable, and non-substitutable (VRIN)—can be sources of sustained competitive advantage [27]. Depending on how a company utilizes its resources, it can foster or jeopardize its performance, making it vital for strategic management to offer the needed leadership to realize competitive advantages. A sustained performance opens a company to growth and development opportunities, enjoying competitive advantages over rivals to command strong market leadership and positioning [28]. Effective management of the internal resources and capabilities could differentiate a business from another, opening it to more lucrative opportunities to sustain its leadership. Whereas external factors such as political destabilization [29] and industry structure could influence a firm's growth and corporate performance, how it leverages its internal resources and capabilities often makes the difference. This is because the industry structure and external forces work to the advantage or disadvantage of the business operating in the same industry. Therefore, going the extra mile to leverage unique internal resources is essential to gain competitive advantages over competitors in the same industry. It is vital to focus on the firm's tangible and intangible resources and capabilities when analyzing its resources to identify its competitive advantages. The resource-based view theoretical underpinning shows how an organization's knowledge sharing and transformational leadership are vital resources and capabilities that could enhance SME's innovation capabilities [12].

Knowledge sharing and transformational leadership are essential resources that could help SMEs build and foster their innovation capability, which is critical in shaping their environmental dynamism [30]. Knowledge sharing opens an organization to numerous opportunities that contribute to its innovation capabilities. It encourages teamwork and collaboration of an empowered workforce that shares knowledge on critical aspects to develop new ways to resolve emerging problems. An empowered team enjoys the freedom of formulating and suggesting possible solutions to the firm's challenges, to help the management team address them accordingly, thus responding to the dynamic environmental changes. Knowledge sharing enhances decision-making by ensuring organizational members make better decisions with the relevant information at their disposal. Building a knowledge sharing culture in an organization is advantageous, opening it to a competitive advantage to leverage everyone's capabilities, knowledge, and ideas to devise new ways to create value for the organization [31]. Utilizing an organization's unique talents is essential to realize competitive advantage in innovation and growth. Knowledge sharing positively affects innovation capability, making it vital for SMEs to commit to creating corporate cultures of information sharing to leverage innovative minds and ideas and sustain high corporate performance [13,30].

Dynamic capabilities theory underpins a theoretical framework for understanding how an organization's efforts to integrate, build, and reorganize its resources and competencies could help it innovate and fit in the dynamic market environment [25]. Whereas a business has control over its internal environment, it must strategize to fit in with the changing external market. According to Buzzao and Rizzi [26], corporate agility is crucial for an organization to adapt to the changing environment, to sustain its high corporate performance. Identifying and responding to the presenting opportunities and threats is an effective way for an organization to adjust to the changing external environment.

An organization committed to improving its operations is keen on leveraging the opportunities and threats to inform its strategic decisions that drive innovation [32]. Exploiting the available opportunities usually requires the firm to develop innovative ideas and strategies to help it respond to creative needs. A critical assessment of the firm's opportunities helps the management team make informed decisions about the appropriate action and strategy while integrating innovation into its endeavors [33]. Likewise, assessing the potential threats and how they impact the business offers insights that can help the

corporation innovate, leveraging the members' creativity to respond to external market forces. The efforts to maintain a company's competitiveness and market positioning in the dynamic market environment allow the company to innovate [34]. The management must devise new ways of ensuring the organization remains relevant despite the harsh external environment threatening the business's sustainability. The firm could also shape opportunities in the industry through innovation to ensure it takes market leadership [35]. While such moves could present challenges to the rivals, the company could exploit the innovative opportunities to command the direction an industry follows.

2.2. Empirical Review of Prior Studies

While the theoretical relationships among these constructs are well established, empirical insights offer critical contextual grounding, particularly for SMEs in emerging economies. Empirical research has consistently demonstrated the influence of transformational leadership, knowledge sharing, and innovation capability on various organizational outcomes, particularly in the context of sustainability performance. For example, Singh et al. [13] found that transformational leadership significantly improved sustainability performance in Indian SMEs by enhancing innovation practices. Their study highlights the role of leaders in shaping strategic priorities and promoting long-term thinking, which is essential for sustainability-oriented innovation. This aligns with broader empirical evidence confirming the centrality of transformational leadership in driving innovation and sustainability outcomes.

The importance of knowledge sharing as a driver of innovation capability is similarly well-supported. Feng et al. [10] showed that knowledge sharing positively affects firm innovation by enhancing internal collaboration and reducing information asymmetries. Their findings, derived from Chinese SMEs, emphasize that knowledge sharing fosters absorptive capacity, which in turn supports the firm's dynamic capabilities in uncertain environments. This empirical support underscores the enabling role of internal communication and learning in fostering innovative performance.

Innovation capability, as an intermediate mechanism, plays a pivotal role in translating internal strengths into sustainability outcomes. Arsawan et al. [31] provide empirical evidence that innovation capability mediates the relationship between leadership and green innovation performance. Their study demonstrates how strategic leadership and organizational culture align to foster innovation that supports environmental goals. Similarly, their findings show that SMEs with stronger innovation competencies are better positioned to respond to external pressures and align with sustainability goals, thereby reinforcing the case for building innovation capacity as a sustainability enabler.

The influence of environmental dynamism has also been addressed in empirical work. Al-Husseini et al. [12] found that dynamic external environments intensify the impact of transformational leadership and innovation efforts on performance. This suggests that SMEs in rapidly changing markets must develop agile leadership and innovation strategies to remain competitive and sustainable. Their empirical investigation into how transformational leadership and knowledge sharing interact to shape organizational innovation provides a strong foundation for the model proposed in this study.

Taken together, these studies provide robust empirical support for examining the synergetic effects of internal capabilities on corporate sustainability performance. They also highlight a notable gap: while existing research has often examined these relationships individually, few studies have offered an integrated analysis linking all the constructs within a single framework, particularly in the North African context. This study contributes to the literature by empirically testing these interdependencies in Moroccan SMEs, thereby offering novel insights into how transformational leadership and knowledge sharing drive

innovation and sustainability under dynamic conditions. By situating the analysis within Morocco, an underrepresented but economically strategic emerging market, the study responds to calls for broader contextual validation of existing theoretical models.

2.3. Knowledge Sharing and Innovation Capability

Knowledge sharing plays a crucial role in enhancing a company's innovation capability. The exchange of expertise among the organizational members allows employees to learn new skills and competencies essential to fostering innovation [13]. For example, an individual with scarce knowledge in information management systems could gain expertise and the required skills from an expert in the same field, thus having an opportunity to learn from them how to troubleshoot common technological problems and those that might arise in the future. Hands-on practice skills, shared by experts, better position organizational members to endeavor to resolve similar issues in the future that industry changes and external market forces might occasion [36]. Information is powerful and enhances an individual's thinking and decision-making abilities, which are essential in developing innovative minds and solutions for the business. Knowledge sharing induces innovation, inspiring teams to embrace creativity and innovation to address the challenges that undermine their firm's corporate performance [11]. The readiness for a changing culture, accompanied by induced innovation, motivates colleagues to share knowledge and ideas that could be incubated and improved into actual innovations, giving the firm added advantages over the rivals to sustain its corporate performance in a dynamic market environment. The failure to create an innovative environment for the employees to apply the new knowledge and skills they acquire from their colleagues undermines the innovation efforts. It is vital to enhance efficiency in information sharing to ease accessibility to essential information for employees' decision-making geared at fostering innovation.

Hypothesis 1. *There is a positive relationship between knowledge sharing and innovation capability.*

2.4. Transformational Leadership and Innovation Capability

Equally important, transformational leadership is a valuable resource that a company should leverage to attain and foster innovation. It focuses on transforming an organization for the better, an undertaking that upholds innovation to improve processes [12]. One cannot underestimate the role of transformational leadership in fostering innovation by promoting the readiness to change culture, which is essential for successful planned changes [37]. Innovation is about bringing new ideas to implementation to create and add value to the firm so that it can discharge its mandate diligently. Employees led by a transformational leadership approach tend to have high self-efficacy and hope, which are essential for promoting their mental and social well-being and fostering innovative minds [38,39]. Creating healthy psychological resources such as high self-efficacy in employees motivates them to remain committed to creativity and innovation, thus adding value to the firm's internal capabilities to respond to dynamic market changes. Intellectual stimulation, as one of the elements of transformational leadership, aims at helping the leader create a learning environment for the employees to acquire new knowledge and ideas crucial in further generating new ideas. Inspirational motivation inspires organizational members to remain focused on the firm's innovation vision and goals to create an innovative organization [40]. Idealized influence sees the leader leading by example in innovation and creativity, thus encouraging the followers to follow suit to contribute to the firm's innovative capabilities. Individualized consideration is essential in mentoring employees to gain expertise, competencies, knowledge, and skills to realize innovation [41]. Transformational leadership positively affects innovation capability, a crucial aspect in shaping a firm's ability to fit in the fast-changing external market environment, especially for SMEs.

Hypothesis 2. *There is a positive relationship between transformational leadership and innovation capability.*

2.5. Innovation Capability and Environmental Dynamism

An organization's ability to innovate is influenced by environmental dynamism. The changes in the external business environment compel a company to innovate to fit and remain viable [35]. Businesses that fail to innovate due to external pressure are usually rendered unviable and irrelevant over time. For instance, complacency undermines changes that helped the company identify growth opportunities, contributing to innovations and allowing the firm to fit in the changed external market. Market instabilities necessitate a business to respond by re-strategizing to remain relevant. Equally important, the innovations a business develops could shape the external environment for other companies, compelling them to adjust as a response to fit. This explains why innovative capabilities and environmental dynamism are interrelated [10]. However, this research focuses on how innovation capability positively affects environmental dynamism. The efforts of an organization to change its tactics while integrating new ideas and technologies help it to adapt to the changing market environment. An organizational culture promoting innovation better positions a firm to respond to the market forces compelling it to adjust its operations, products, services, or how it engages with suppliers and customers to sustain its operations [18]. SMEs must invest in innovation through research and development while observing the external market changes to drive the process.

Hypothesis 3. *There is a positive relationship between innovation capability and environmental dynamism.*

2.6. Environmental Dynamism and Corporate Sustainability Performance

The changes in the external business environment affect the corporate sustainability performance of a corporation [42]. Technological changes, competition behavior, consumer changing needs, and changing legal environment are common disruptions and forces shaping environmental dynamism, requiring a company to respond swiftly [43]. The rate and degree of these changes shape the firm's corporate sustainability performance in many ways [26,44]. For example, technological changes in a given industry compel a business to embrace the changes by innovating to remain relevant in the market. The introduction of automation and artificial intelligence has, for instance, challenged companies in the manufacturing industry to invest in the technologies, allowing them to adjust their policies to uphold corporate performance. Successful companies have been committed to upholding data privacy and security, corporate strategies that have seen the firms heighten their performance in protecting the customers and the people using their automated systems [45]. In this perspective, the ability of an organization to change and adapt to the changing environment squarely depends on its resources and internal capabilities. The changes open new corporate opportunities to balance environmental, social, and economic issues [34]. Re-strategizing to realize the balance opens a company to opportunities to heighten and sustain its corporate performance. Xu et al. (2024) state that controlling corruption and enhancing bureaucracy quality improves ecological quality, which would help companies achieve their goals [46]. Therefore, environmental dynamism positively impacts corporate sustainability performance by opening the corporation to new opportunities to improve its corporate responsibility and performance.

Hypothesis 4. *There is a positive relationship between environmental and corporate sustainability performance.*

Based on the above hypotheses, Figure 1 shows the research model for this paper as follows:

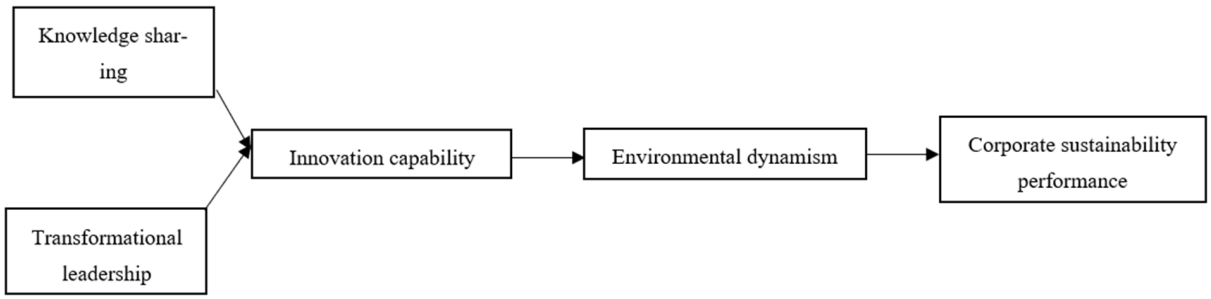

Figure 1. The research models.

3. Materials and Methods

3.1. Procedure and Sampling

This study adopts a quantitative cross-sectional research design, using a structured questionnaire to collect data from 140 Moroccan SMEs. The quantitative approach enables statistical testing of hypothesized relationships between transformational leadership, knowledge sharing, innovation capability, environmental dynamism, and corporate sustainability performance. The target population for this study consisted of Small and Medium-sized enterprises (SMEs) operating in Morocco, spanning sectors such as manufacturing, services, and retail. SMEs were selected for their growing involvement in sustainability initiatives within emerging markets. A total of 250 SME managers were contacted for this study, resulting in 140 final responses, which account for 56%. To justify the final sample size, we used the 10-times rule recommended in Partial Least Squares Structural Equation Modeling (PLS-SEM), which suggests a minimum sample size of ten times the maximum number of structural paths directed at any construct in the model [47]. Given our model's structure, 50 observations were required; thus, our sample of 140 exceeded this threshold and ensured adequate statistical power.

The convenience sampling technique was adopted to focus exclusively on managers and owners of the SMEs. A convenience sampling technique was adopted due to its practicality in accessing SME managers within a constrained timeframe. While this approach is commonly used in exploratory studies, it may introduce selection bias and limit generalizability. To partially mitigate these concerns, we ensured sectoral diversity across manufacturing, services, and retail SMEs and verified responses to reduce self-selection effects. The inclusive and exclusive criteria were used to identify participants to participate in the study and provide the relevant information to evaluate the study's hypotheses. These managers and owners were taken from a sample of 140 SMEs selected across Morocco. Convenience sampling was adopted because the study aimed to engage the managers and owners of the SMEs exclusively because of their experience and knowledge of their respective organizations. An online questionnaire was used to collect data from the selected participants. The method was adopted because of its convenience and ease of application in contacting the managers of the selected SMEs across Morocco. The approach was also time-saving and allowed the researcher to collect data within 6 months—August 2023 to March 2024. The researchers could also monitor the participants based on the number of forms returned and the full responses from the participants. The correspondents enjoyed the convenience of responding to the questions without necessarily having to travel or meet the researcher in person. Instead, they did it in the comfort of their homes or offices.

3.2. The Research Instrument Process

The questionnaire was developed through a rigorous multi-stage process. It was initially drafted by adapting validated measurement scales from established literature in relevant fields [47]. This preliminary version underwent a critical review by two experts in corporate sustainability and three experts in accounting to assess content relevance, clarity, and theoretical alignment. Following their feedback, revisions were made to refine the wording and structure of the items. Subsequently, a pilot study involving 31 SMEs was conducted to test the instrument's comprehensibility and operational feasibility. Feedback from pilot participants led to minor refinements of ambiguous phrasing (e.g., replacing "innovative capability" with locally relevant terminology). All constructs demonstrated high internal consistency in the pilot, with Cronbach's alpha values exceeding the threshold of 0.70 [48]. The finalized questionnaire was administered electronically via Google Forms over a thirty-two-day data collection period.

3.3. Variable Measurements

Transformational leadership was measured with three items from the Multifactor Leadership Questionnaire by Begum et al. [49] and Chang et al. [50], while Innovation capability was assessed using three items from Olaleye et al., [51] and Deshpandé et al. [52]. Knowledge sharing was captured using three items from Wong et al. [53], and environmental dynamism was measured using five items developed by Jansen et al. [54] and Hou et al. [55]. Corporate sustainability performance was measured using a four-item scale grounded in Asadi et al. [56] framework and Wang's [57] Triple Bottom Line concept. The variables and the items can be seen in Appendix A. Table 1 shows a summary of these variables and items adopted for this study. Each construct employed a five-point Likert scale ranging from 1 (Strongly Disagree) to 5 (Strongly Agree). All items were measured using a five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). Minor adjustments to wording were made to tailor items to the Moroccan SME context. Reliability and validity were ensured through a pilot test with 15 respondents and were confirmed via Cronbach's alpha and composite reliability values, all of which exceeded the 0.7 threshold. Convergent and discriminant validity were assessed using AVE and HTMT criteria, respectively.

Table 1. Variables definitions and measurements.

Construct	Number of Items	Scale Description	Source
Corporate Sustainability Performance	2	Five-point Likert scale: 1 = Strongly Disagree to 5 = Strongly Agree	Asadi et al. [56] and Wang [57]
Knowledge Sharing	3	Five-point Likert scale: 1 = Strongly Disagree to 5 = Strongly Agree	Wong et al. [53]
Transformational Leadership	3	Five-point Likert scale: 1 = Strongly Disagree to 5 = Strongly Agree	Begum et al. [49] and Chang et al. [50]
Innovation Capability	3	Five-point Likert scale: 1 = Strongly Disagree to 5 = Strongly Agree	Olaleye et al. [51] and Deshpandé et al. [52]
Environmental Dynamism	5	Five-point Likert scale: 1 = Strongly Disagree to 5 = Strongly Agree	Hou et al. [55] and Jansen et al. [54]

To account for potential confounding effects, Firm age, Firm size, and Industry type were used as control variables, following prior literature on corporate sustainability and ESG performance.

3.4. Data Analysis

PLS-SEM using SmartPLS v.4 was adopted for data analysis owing to its benefits and advantages. It is suitable for analyzing data in business research [58]. It is appropriate for analyzing non-normal data that is categorized into categories. In this case, it is used to analyze the data classified based on the years of operations of the SME, Firm size, and the type of industry. It also accepts reflective measurement approaches to ascertain how individual indicators used in the study define a given construct [38]. Its focus on prediction and development of theory is also crucial for this study to ascertain the theoretical implications of this study.

4. Results

4.1. Demographic and Descriptive Statistics

Table 2 presents the descriptive statistics showing the distribution of these companies based on their years of operation, number of employees, and the type of industry shows a diverse sample of the SMEs that participated in the study. A sample size of 140 SMEs was used to collect appropriate data to test the hypotheses and answer the research questions. The Firm size, age, and industry were used to identify and classify the sample. The companies were classified into three categories depending on the number of employees they had. The first, second, and third categories featured companies with employees ranging from 10–50, 50–150, and 150–250 employees, respectively. The companies with 10–50 employees were the majority, with 43.2% of the total sample size, while those with 150–250 employees were the least represented by 15.8%. However, companies with 50–150 employees constituted 41% of the sample size. Companies with 15–20 years of operations as SMEs formed the majority of the sample size, representing 32.85%, while those with more than 20 years of operation were the least, representing 10.24% of the total sample size. The selected sample included the service and manufacturing industries, representing 63.42% and 36.58% of the total sample size.

Table 2. Descriptive statistics of the sample.

Firm Characteristic	Category	Percentage (%)
Firm Size	10–50 employees	43.20
	51–150 employees	41.00
	151–250 employees	15.80
Firm Age	Less than 5 years	25.42
	5–10 years	18.63
	11–15 years	12.86
	16–20 years	32.85
	More than 20 years	10.24
Industrial Type	Services	63.42
	Manufacturing	36.58

The *p*-value of the study variables provides meaningful insights that show each factor's statistical significance level. In Table 3, Correlations, Means, and Standard Deviations show the likelihood of observing the results obtained. The study variables had a *p*-value of less than 0.01 ($p < 0.01$), except for knowledge sharing (0.034), confirming the likelihood of observing the recorded results.

Table 3. Correlations, Means, and Standard Deviations.

	1	2	3	4	5	6	7	8
1. SIZE								
2. AGE	−0.734 **							
3. INDUSTRY	−0.470 **	0.696 **						
4. CSP	−0.105	0.333 **	0.443 **					
5. KS	0.034	−0.004	0.080	0.152				
6. TL	−0.009	0.064	0.131	0.201 *	0.765 **			
7. IC	−0.057	0.115	0.118	0.158	0.793 **	0.725 **		
8. ED	−0.067	0.230 **	0.220 **	0.212 *	0.648 **	0.576 **	0.773 **	
Mean	1.28	1.95	1.49	4.40	3.43	3.39	3.37	5.36
SD	0.450	0.808	0.543	1.24	1.19	1.21	1.13	1.92

Note: N = 140; ** $p < 0.01$, * $p < 0.05$ (2-tailed). CSP, Corporate sustainability performance; KS, Knowledge sharing; TL, Transformational leadership; IC, Innovation capability; ED, Environmental dynamism; AGE, Firm age; SIZE, Firm size; INDUSTRY, Industry type.

4.2. Measurement Model Analysis

In Table 4, Cronbach's Alpha (CA) is used to determine the internal consistency of the online questionnaire, a data collection tool adopted in this study. Corporate sustainability performance, knowledge sharing, transformational leadership, innovation capability, and environmental dynamism had CAs of 0.789, 0.93, 0.932, 0.902, and 0.910, respectively. A CA value above 0.7 is considered acceptable, thus making the corporate sustainability variable reliable and consistent throughout the study. A CA value close to 1 or above 0.8 shows higher consistency. Therefore, all the variables except corporate sustainability performance were closer to 1, confirming excellent consistency in measuring the respective variables. The Composite Reliability (CR) values of the five variables are more than 0.7 (minimum value to consider good reliability), which results in the reliability of the variables used in the study. The Average Variance Extracted (AVE) of the five variables is greater than the standard 0.5 (minimum to indicate convenient validity), showing the convenient validity of the variables. In this study, all VIF values were below the threshold of 3, confirming that multicollinearity is not a significant issue and ensuring the reliability of the regression estimates [59].

Table 4. Reliability and Validity Results.

Variables	Outer Loadings	CA	CR	AVE	VIF
Corporate sustainability performance		0.789	0.863	0.613	
CSP1	0.861				1.971
CSP2	0.802				2.051
CSP3	0.784				1.361
CSP4	0.773				1.499
Knowledge sharing		0.930	0.956	0.878	
KS1	0.940				3.025
KS2	0.945				3.376
KS3	0.925				3.271
Transformational leadership		0.932	0.957	0.881	
TL1	0.931				3.741
TL2	0.942				3.564
TL3	0.953				4.686
Innovation capability		0.902	0.939	0.836	
IC1	0.934				3.938
IC2	0.930				3.788
IC3	0.878				2.183
Environmental dynamism		0.910	0.933	0.735	
ED1	0.840				2.528
ED2	0.834				2.770
ED3	0.914				3.774
ED4	0.886				3.210
ED5	0.809				1.927

CA, Cronbach's alpha; CR, composite reliability; AVE, average variance extracted; VIF, variance inflation factor.

Table 5, the Heterotrait-Monotrait Ratio of Correlations (HTMT) measures discriminant validity between two variables. A value less than 0.90 indicates discriminant validity between variables [60]. The HTMT between TL and KS, IC and KS, ED and KS, and CSP and KS are less than 0.9. The HTMT between TL and other variables is also less than 0.9. Again, the HTMT between ED and other variables is also less than 0.9. Also, the HTMT between CSP and other variables is less than 0.9. The HTMT between the variables indicated in Table 5 is less than 0.9, confirming discriminant validity between the variables used in the study.

Table 5. HTMT.

Variables	KS	TL	IC	ED
KS				
TL	0.821			
IC	0.845	0.787		
ED	0.709	0.631	0.848	
CSP	0.185	0.245	0.195	0.253

Note: N = 140; CSP, Corporate sustainability performance; KS, Knowledge sharing; TL, Transformational leadership; IC, Innovation capability; ED, Environmental dynamism; AGE, Firm age; SIZE, Firm size; INDUSTRY, Industry type.

4.3. Structural Model Analysis

The SRMR value is 0.07, being below the recommended threshold of 0.08, indicates that the structural model demonstrates a good fit, confirming the adequacy of the model specification [47]. The good model fit, evidenced by SRMR = 0.07, supports the robustness of the structural relationships proposed. The Q^2 values presented in Table 6 further confirm the model's predictive relevance: 0.543 for innovation capability (IC), 0.451 for environmental dynamism (ED), and 0.142 for corporate sustainability performance (CSP). These values indicate strong to moderate out-of-sample predictive accuracy, reinforcing the model's generalizability and its explanatory power in the context of SMEs in emerging economies.

Table 6. In-sample and out-of-sample model fit results.

	R^2	R^2 Adjusted	Q^2
CSP	0.289	0.268	0.142
ED	0.635	0.632	0.451
IC	0.661	0.656	0.543

Note: N = 140; CSP, Corporate sustainability performance; IC, Innovation capability; ED, Environmental dynamism.

The results are recorded in Table 7. Structural Model Results are critical in evaluating the model fit and application in this study, as well as parameter estimates. According to Sorooshian et al. [61], the model fit values show the level at which the adopted model represents the data, while the like path coefficients measure the strength and direction of relationships between the five variables used in this study. The results show that the relationships between KS -> IC, TL -> IC, IC -> ED, and ED -> CSP are supported.

Table 7. Structural model results.

Path	Path Coefficient	*t*-Value	CIs	f^2	Verdict
H1. KS → IC	0.577 ***	5.933	[0.389, 0.768]	0.406	Supported
H2. TL → IC	0.281 **	2.723	[0.073, 0.482]	0.096	Supported
H3. IC → ED	0.797 ***	18.087	[0.706, 0.877]	1.736	Supported
H4. ED → CSP	0.093 *	3.380	[0.079, 0.156]	0.112	Supported

Note: N = 140; CSP, Corporate sustainability performance; KS, Knowledge sharing; TL, Transformational leadership; IC, Innovation capability; ED, Environmental dynamism; CIs, confidence intervals; * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$ (two-sided test).

The results of the structural modeling analysis provide insightful information in hypothesis testing, as shown in Table 7 and Figure 2 above. The results show significant aspects of how knowledge sharing, innovation capability, and transformative leadership influence environmental dynamism and, consequently, corporate sustainability performance. The structural model analysis using PLS4 shows a direct relationship between knowledge sharing and innovation capability. The modeling analysis results also show that transformational leadership positively affects innovational capability, confirming a direct relationship between the two variables. There is also a direct relationship between innovation capability and environmental dynamism, with the former positively affecting the latter. The findings also show that environmental dynamism directly impacts corporate sustainability performance (relationship).

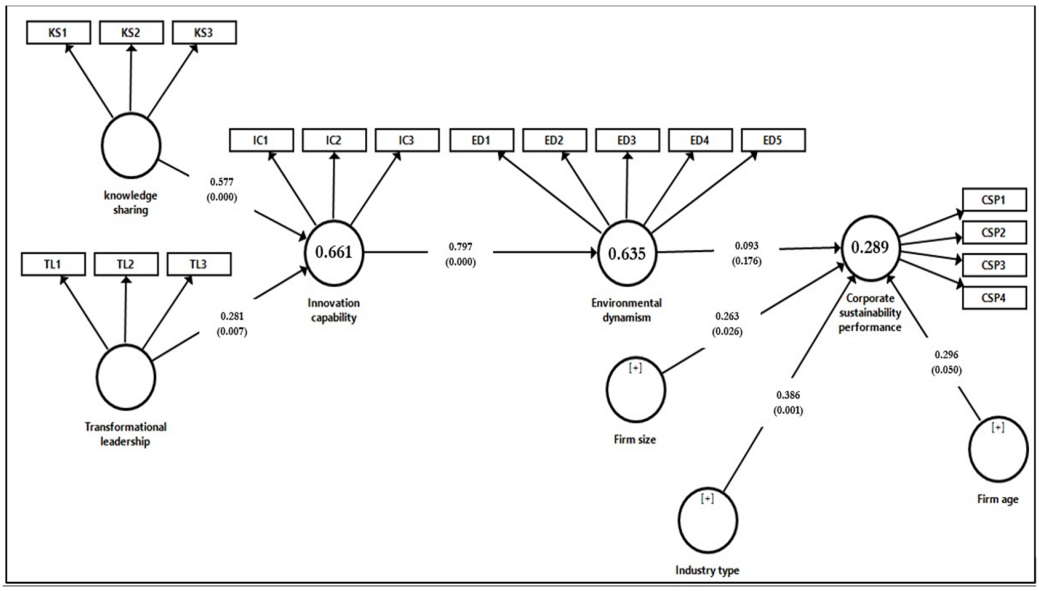

Figure 2. The result of structural model analysis using SmartPLS 4.

5. Discussion

The findings of this study provide compelling evidence of the relationship between variables. The findings indicate that knowledge sharing and transformational leadership collectively enhance an organization's innovation capability. It also confirms that the innovation capability of an organization could help it shape environmental dynamism by responding to the changes in the external market environment. Lastly, the study concludes that environmental dynamism influences a corporation's sustainability performance. Therefore, the first, second, third, and fourth hypotheses are accepted. The testing of the first hypothesis showed positive results and a positive correlation between knowledge sharing and innovation capability. The second hypothesis, hypothesis 2, confirms that transformational leadership positively affects innovation capability. The third hypothesis, 3, is true, confirming that innovation capability positively affects environmental dynamism. Finally, the fourth hypothesis, 4, is confirmed as accurate as the study has ascertained that environmental dynamism positively affects corporate sustainability performance based on the study results.

The results show a correlation between knowledge sharing and innovation capability, as indicated by the structural modeling structure, that supported the interrelations, H1. Prior studies have also confirmed the correlations between knowledge sharing and innovation capabilities, underscoring the need for organizations to commit to empowering their teams with information [11,62,63]. The study's findings are consistent with Migdadi's [64] arguments that an empowered individual makes better decisions for resolving problems

using novel ideas. In this regard, focus on building and fostering organizational cultures that promote information sharing to leverage the associated benefits of upholding innovation capabilities. Apart from creating a culture that promotes information sharing, Arsawan et al. [31] opine that providing resources and necessary tools that facilitate the practice is crucial to making it a reality in a company. For example, there is a need to invest in computer and information management systems that enhance efficiency and make it easy to share and retrieve data so employees can exchange knowledge seamlessly. There is also a need to create open communication channels to encourage active participation and information sharing between employees and across management levels. Recognition of those who volunteer to share knowledge and skills with others is highly encouraged to motivate others to follow the practice. Moroccan SMEs should consider investing in staff training and development programs to empower their teams with essential skills and competencies to better position them to leverage information and knowledge sharing to foster innovation capabilities.

The study has underscored the benefits of information sharing, making it imperative for Moroccan SMEs to understand how the practice contributes to innovation culture and capabilities. According to Mendoza-Silva [65], knowledge sharing empowers an individual to make informed decisions essential to realizing the desired innovation capabilities. Mendoza-Silva's [62] findings are consistent with Kumar et al. [66] findings that providing a knowledge sharing platform for employees and showing them how to use it inspires them to be creative and innovative. Moroccan SMEs should invest in research and development (R&D) to identify and assess the current trends in information sharing and identify potential areas they need to improve. Knowledge sharing needs vary from one company to another, thus making it vital for Moroccan SMEs to assess their specific needs and the possible interventions to spur the exchange of skills and competencies to nurture and foster innovation. Such efforts are essential in identifying and exploiting the available opportunities to realize a competitive advantage over competitors in knowledge sharing.

The findings of this study also show that transformational leadership has a positive effect on innovation capability, as revealed by the structural model analysis using SmartPLS 4, Heterotrait-Monotrait Ratio of Correlations (HTMT), and reliability and validity tests. The models revealed correlations and interconnections between the transformational leadership and innovation capabilities variables. This study's findings are consistent with Gupta's [37] findings that transformational leadership inspires and empowers organizational members to embrace innovation by fostering intellectual stimulation. Leading by example provides guidelines for the employees to resolve issues and make decisions on their own. In this regard, Abdul-Azeez et al. [39] opine that business organizations should create a conducive environment to allow organizational members to establish and maintain healthy interpersonal and working relationships to inspire each other. Close friends are likely to engage in open and transparent communication, positively challenging each other to mirror their good practices, and opening them to innovate. Therefore, Moroccan SMEs can benefit from the findings of this study by maximizing and utilizing transformational leadership to realize innovation. However, there is a need to assess the company's innovation alongside the leadership styles to ensure the adopted transformational leadership is not forced on the people or contravenes the firm's culture.

The study's findings have also revealed that innovation capability positively affects environmental dynamism. Feng et al. [10] opine that innovation capability better positions a company to adapt to the changing external business environment. The findings are consistent with the results of this study, which show that developing innovation capabilities empowers organizational members to devise new ways and strategies to fit in a dynamic business environment. Identifying trends and market forces changes is crucial to making

informed decisions that will help an organization adjust to the dynamic environment. The finding is consistent with Yu [67], underscoring the need for conducting feasibility market studies to assess the firm's market positioning, threats, and opportunities it can exploit to realize sustainable growth and success. Apart from assessing the rate of change in the external business environment, Moroccan SMEs are encouraged to ascertain and appreciate the uncertainties characterizing their macro business environment. Such efforts are essential in evaluating the difficulties in predicting future patterns and events shaping external business forces. Taghizadeh et al. [14] recommend that SMEs identify and assess instabilities in the external business environments because they can provide vital insights to formulate strategies that can better help the firm adjust its operations, services, or products to remain relevant in the dynamic business environment.

This study also reveals that environmental dynamism positively affects corporate sustainability performance. In this regard, Ye [68] opines that business organizations must evaluate and re-evaluate their corporate social responsibilities in the dynamic business environment to adopt appropriate strategies to sustain their corporate performance. Environmental dynamism offers insights that can help a company appreciate how the environment is changing and formulate appropriate tactics that will guarantee a heightened corporate sustainability performance. Moroccan SMEs should endeavor to observe the changing events, patterns, market forces, and trends shaping the external business environment to respond accordingly through the formulation of appropriate corporate sustainable strategies to realize the desired performance in balancing social, economic, and environmental issues. As Habibullah and Kamal [45] posit, improved environmental and social governance is crucial to realizing business success that will propel Moroccan SMEs to the desired growth levels. The failure to observe the corporate issues emanating from the environmental dynamism can jeopardize the corporate sustainability performance of Moroccan SMEs, exposing them to fierce competition from existing and new entrants.

6. Conclusions

This study provides an integrated empirical examination of the pathways through which transformational leadership and knowledge sharing enhance innovation capability, and how this, in turn, shapes environmental dynamism and drives corporate sustainability performance within Moroccan SMEs. Using a robust cross-sectional dataset and applying PLS-SEM analysis, the research offers a unique contribution by modeling the synergetic relationships among these constructs within the context of a developing economy. The findings confirm that both transformational leadership and knowledge sharing positively affect innovation capability. More importantly, innovation capability serves as a critical conduit, enabling firms to better navigate environmental turbulence and achieve superior sustainability outcomes. The study provides novel evidence that environmental dynamism acts not only as a contextual force but also as an enabler of sustainability in resource-constrained firms.

Theoretically, this study advances and bridges the resource-based view and dynamic capabilities theory in a sustainability context. It affirms the conceptualization of transformational leadership and knowledge sharing as intangible organizational resources, and innovation capability as a strategic dynamic capability that empowers firms to adapt proactively. In doing so, the findings extend current literature by demonstrating that sustainability in SMEs is not merely a product of external compliance or policy adoption, but an outcome of carefully cultivated internal capabilities. The model presented offers a theoretically grounded and empirically validated framework for understanding how internal leadership and knowledge mechanisms translate into organizational resilience and long-term sustainability, particularly in dynamic markets. Moreover, it opens new avenues

for research integrating strategic management, innovation theory, and sustainability science within small firm ecosystems.

From a practical standpoint, this study offers important insights for SME managers, policymakers, and sustainability advocates. In line with the United Nations Sustainable Development Goals (SDGs), particularly SDG 9 on industry innovation and infrastructure, the results highlight that building internal leadership capacity and fostering a knowledge sharing culture are vital strategies for enhancing sustainability performance. This is especially relevant for SMEs operating in developing economies like Morocco, where resource limitations often constrain strategic growth. The evidence shows that investing in innovation, both technological and procedural, is indispensable for maintaining environmental adaptability and competitive relevance in volatile markets.

The demonstrated link between innovation capability and environmental responsiveness suggests that firms should view adaptability not merely as a defensive posture but as a proactive asset. Specifically, this means aligning leadership development programs with innovation strategies and embedding knowledge sharing practices across the organization to build resilience. These capabilities enable SMEs to not only withstand external shocks but to convert them into opportunities for sustainable growth. Furthermore, these insights can inform national SME development policies by underscoring the role of human capital and organizational learning in building sustainable economies from the bottom up.

In addition, the findings point to the need for multi-level support structures that reinforce these internal capabilities. Regulatory agencies, industry associations, and financial institutions should consider incentivizing SME investments in leadership training, collaborative technologies, and R&D. Doing so would elevate the overall innovation ecosystem while enabling more SMEs to align operational practices with sustainability imperatives. The study suggests that such interventions should be context-sensitive and tailored to the distinct dynamics of local markets, especially in emerging economies where institutional support for sustainability may be inconsistent.

Additionally, the implications extend to corporate governance practices within SMEs. Integrating transformational leadership and fostering a culture of open knowledge exchange should be viewed as core elements of sustainability governance frameworks. These practices equip firms to respond more nimbly to rapid shifts in the external environment, be it regulatory changes, technological disruptions, or shifting stakeholder expectations. The study provides a strategic roadmap for SMEs to build internal resilience and leverage innovation as a transformative force for sustainable development. Ultimately, this research affirms the pivotal role of internal strategic capabilities in achieving long-term sustainability outcomes and supports an agenda of inclusive, innovation-driven growth across the SME sector in developing contexts.

Nonetheless, the study is not without limitations. First, the cross-sectional design restricts causal inference and precludes analysis of long-term effects. Future studies may adopt longitudinal approaches to capture temporal dynamics in innovation and sustainability transitions. Second, while the study sample offers valuable insights from Moroccan SMEs, the generalizability of findings may be constrained by sectoral or cultural specificities. Comparative studies across different emerging markets would enrich our understanding of contextual variations. Third, while the quantitative design enabled statistical rigor, incorporating qualitative methods (such as interviews with SME leaders) could yield richer insights into the behavioral and organizational processes underlying the observed relationships. Lastly, future research may explore how external variables such as policy support, institutional trust, and digital infrastructure interact with internal capabilities to shape sustainability outcomes in SMEs.

7. Implications

7.1. Theoretical Implications

This study significantly contributes to the existing literature by advancing our understanding of how transformational leadership and knowledge sharing positively impact innovation capability. While prior research has typically examined these factors in isolation, this study emphasizes their combined influence, offering a more holistic view of organizational dynamics. Specifically, the research illustrates how these internal mechanisms collectively enhance innovation capability, which subsequently shapes environmental dynamism and, in turn, drives corporate sustainability performance. This chain of influence reveals a novel and integrated pathway that expands on prior frameworks.

The study builds on and extends the theoretical foundations of the resource-based view and dynamic capabilities theory. It offers a novel approach by demonstrating how these frameworks can be applied in the context of SMEs in developing economies, a setting often underrepresented in mainstream literature. The synergistic interaction between the studied variables underscores the critical importance of agile, learning-oriented organizations that are equipped to respond to dynamic external environments. These insights contribute to the growing body of knowledge on how internal resources and capabilities translate into sustainable competitive advantage.

Furthermore, this study enriches prior empirical work, including the contributions of Rodríguez-Peña [69], Sharma et al. [44], and Shafique et al. [70], by introducing and validating an integrated model specifically relevant to SMEs. It highlights the importance of aligning leadership style, knowledge culture, and innovation readiness to sustain corporate performance in volatile markets. The findings thus offer a solid conceptual foundation for future studies that aim to explore sustainability mechanisms in similar organizational or national contexts.

7.2. Practical Implications

The findings of this study offer important practical insights for SME managers, policymakers, and corporate strategists seeking to enhance sustainability in dynamic market environments. For business leaders, the results highlight the importance of embedding transformational leadership principles and fostering a culture of knowledge sharing to unlock innovation potential. These leadership behaviors and collaborative environments are essential for SMEs aiming to adapt and thrive amid environmental uncertainty.

Managers of Moroccan SMEs, in particular, can benefit from instilling transformational values that prioritize innovation, empowerment, and team collaboration. A supportive leader who actively mentors and inspires employees to embrace change and contribute ideas is instrumental in fostering an innovative culture. Emphasizing adaptability, as supported by Khalifa Alhitmi et al. [40], enables SMEs to align their internal processes with shifting external demands. Ensuring employee well-being, autonomy, and recognition is also critical to sustaining commitment and productivity in the long term.

From a policy perspective, the study emphasizes the need for government agencies and business development institutions to support leadership development programs, information-sharing platforms, and SME innovation hubs. These tools can enhance the capability of SMEs to remain competitive and contribute to broader sustainability agendas, such as the UN Sustainable Development Goals. Industry workshops and capacity-building conferences focused on transformational leadership and knowledge strategies can also provide valuable training and peer learning opportunities.

Moreover, industry experts and advisors can use the study's framework to guide SMEs in conducting self-assessments of their innovation readiness, environmental adaptability, and sustainability performance. By adopting the strategic practices identified in this study,

SMEs can better position themselves for future growth, risk resilience, and long-term value creation.

Author Contributions: Conceptualization, F.A.; Methodology, A.A. and M.S.; Formal analysis, A.A. and W.S.; Investigation, W.S.; Writing—original draft, W.S., M.S. and F.A.; Writing—review & editing, M.E. and D.S.; Supervision, D.S. and M.E.; Project administration, M.E. and D.S. All authors have read and agreed to the published version of the manuscript.

Funding: This research received no external funding.

Institutional Review Board Statement: The study was conducted according to the guidelines of the Declaration of Helsinki, and approved by the Research and Development Committee, Arab Open University, Kuwait. (protocol code: KW 830/23 and date of approval: 6 August 2023).

Informed Consent Statement: Informed consent was obtained from all subjects involved in the study.

Data Availability Statement: Data are contained within the article.

Conflicts of Interest: The authors declare no conflicts of interest.

Appendix A. The Research Instrument

Variables	Items	Sources
Knowledge sharing	KS is measured to what extent you agree or disagree with the following statements on a 5-point Likert scale (5–Strongly Agree, 1–Strongly Disagree) KS1—I enjoy helping colleagues by sharing my knowledge. KS2—It feels good to help my colleagues by sharing my knowledge. KS3—Sharing my knowledge with colleagues is pleasurable.	Wong [53]
Transformational leadership	TL is measured to what extent you agree or disagree with the following statements on a 5-point Likert scale (5–Strongly Agree, 1–Strongly Disagree) TL1—My immediate supervisor/manager communicates a clear and positive vision of the future TL2—The leader inspires followers with new plans TL3—The leader stimulates subordinates to think about new ideas	Begum et al. [49] and Chang et al. [50]
Innovative capability	IC is measured to what extent you agree or disagree with the following statements on a 5-point Likert scale (5–Strongly Agree, 1–Strongly Disagree) IC1—First-to-market with new products and services IC2—Later entrant in established but still growing markets IC3—At the cutting edge of technological innovation	Olaleye et al. [51] and Deshpandé et al. [52]
Environmental dynamism	ED is measured to what extent you agree or disagree with the following statements on a 5-point Likert scale (5–Strongly Agree, 1–Strongly Disagree) ENVD1—Changes in our market environment are very intense ENVD2—Clients in our markets regularly demand completely new products and/or services ENVD3—The markets in which we operate are constantly experiencing changes ENVD4—Demand fluctuates rapidly and frequently in our markets ENVD5—Clients in our markets are proactive and consistently require new business models	Hou et al. [55] and Jansen et al. [54]
Corporate sustainability performance	CSP is measured to what extent you agree or disagree with the following statements on a 5-point Likert scale (5–Strongly Agree, 1–Strongly Disagree) CSP1—Our organization has achieved important environment-related certifications. CSP 2—Our organization provides more social friendly services in the community CSP 3—Our organization establishes transparent and ethical business practices CSP 4—Our organization fosters a culture of accountability and integrity in decision-making processes.	Asadi et al. [56] and Wang [57]

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