

SUSTAINABLE FINANCE PRACTICES AND FIRM FINANCIAL PERFORMANCE UNDER THE INFLUENCE OF CORPORATE GOVERNANCE MECHANISMS

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Abstract

The study investigates the relationship between sustainability-oriented financial practices and firm financial performance, with a particular focus on the moderating role of corporate governance. Drawing on stakeholder theory, the research aims to examine how firms can achieve superior performance by integrating sustainability into their financial strategies while leveraging effective governance mechanisms. A quantitative, cross-sectional research design is employed, with data collected from managers of small and medium-sized manufacturing enterprises in Pakistan. The study utilizes structured questionnaires and analyzes the data using SPSS and SmartPLS, applying partial least squares structural equation modeling to test the proposed hypotheses. The findings reveal that sustainability-oriented financial practices have a significant positive effect on firm financial performance. Furthermore, corporate governance is found to play a significant moderating role, strengthening the relationship between sustainability practices and performance outcomes. These results highlight the importance of integrating sustainability and governance within organizational strategies to achieve long-term success. The study contributes to the literature by providing empirical evidence from an emerging economy context and offers practical insights for managers and policymakers seeking to enhance firm performance through sustainable and well-governed practices.

INTRODUCTION

The global financial landscape has undergone a significant transformation as firms increasingly align their operations with sustainability imperatives and long-term value creation. Contemporary discourse in business and policy circles emphasizes the integration of environmental and social considerations into financial decision-making, reflecting a shift from short-term profit maximization toward broader

accountability and resilience. This transition is driven by mounting stakeholder pressure, regulatory expectations, and the growing recognition that sustainable practices are closely tied to risk management and competitive advantage. In this context, governance structures have gained renewed attention as mechanisms that shape strategic direction, ensure accountability, and enhance transparency within organizations. Recent scholarship highlights that firms operating

within robust governance frameworks are better positioned to navigate complex sustainability challenges and align their objectives with global standards such as climate action and responsible investment (Wang et al., 2023; Yilmaz et al., 2024). At the same time, financial outcomes remain central to organizational survival, creating an ongoing debate about how sustainability-oriented initiatives influence economic performance. This evolving dialogue reflects a broader effort to reconcile ethical responsibilities with financial objectives, positioning governance and sustainability as interconnected elements within modern corporate strategy (Adu, 2022; Ammer & Salim, 2024).

There is significant evidence in the literature that financial strategies that prioritise sustainability have a positive impact on firm performance, albeit with varying degrees of association. Empirical research suggests that companies that implement environmentally and socially sustainable financial practices tend to achieve higher efficiency, reputation and access to finance (Khababa & Jalingo, 2023; Dzomonda, 2022). Conversely, governance practices have also been shown to play a key role in these relationships, as they guide management practices and align interests with stakeholders (Mansour et al., 2022; Rashid & Kabir, 2025). But there is some variability in the literature. Some research shows a robust positive link between sustainability practices and financial performance, while others indicate more nuanced relationships, often moderated by governance and institutional factors (Lu, 2021; Bajwa et al., 2023). These conflicting results suggest a more complex relationship between governance and financial strategies based on sustainability.

The need for sustainable financial systems has been amplified globally by the pressing need to tackle environmental challenges, climate change and social inequality. Recent sustainability reports estimate trillions of dollars are needed every year to achieve climate and sustainable development goals, putting pressure on the public and private sectors to effectively mobilise resources (Darsono et al., 2025). Businesses are expected to take an active part in this shift, especially in developing countries where institutional support may not be

as robust. In emerging markets such as Pakistan and other developing economies, factors such as lack of access to green finance, regulatory enforcement and governance inefficiencies can impede the successful execution of sustainability strategies. This is further exacerbated by information asymmetry and transparency problems, which can erode investor trust and financial initiatives' impact (Abuatwan, 2023; Gyamfi et al., 2026). Additionally, companies may face a dilemma between short-term financial goals and long-term sustainability initiatives, presenting strategic challenges that need effective governance. These issues point to the need to explore how internal organisational mechanisms can facilitate the integration of sustainability and financial performance, especially in environments where external institutional mechanisms may be absent. Although there is an increasing amount of research on sustainability and financial performance, there are a number of important gaps. First, much of the previous studies have examined direct effects, ignoring the underlying mechanisms through which governance structures impact these relationships. Although governance is often recognised as a critical variable, it is often considered in isolation or as a control variable, rather than an interactive mechanism that may influence the impact of sustainability-focused financial practices (Wang et al., 2023; Bajwa et al., 2023). Second, empirical evidence is inconsistent and context-dependent. Research in developed markets tends to show more positive associations than studies in emerging markets, where governance and regulatory frameworks may not support the implementation of sustainability strategies (Dzomonda, 2022; Abuatwan, 2023). This variability implies that the relationships between governance and financial strategies driven by sustainability are not yet well understood, especially in developing economies. Third, there is a lack of integration of moderating theories that capture the moderating effect of governance quality on the nature of relationships between financial practices and firm performance. While some recent research has started to examine moderating effects, it tends to be limited to specific aspects of governance rather than taking a

holistic view (Yilmaz et al., 2024; Ammer & Salim, 2024). As such, more integrated and contextualised research is needed to view governance not just as a structural element but as a dynamic process that influences firm performance. This is crucial for building a more integrated understanding of the impact of sustainability-focused financial practices on performance outcomes.

Insight into the interplay between financial practices motivated by sustainability and governance mechanisms is important for several stakeholders. For academics, it helps to settle debates about the economic impacts of sustainability measures. For regulators, it offers insights into how governance and regulatory frameworks can support the effectiveness of sustainable finance in meeting economic and environmental goals. More importantly, businesses need evidence on how best to design their governance frameworks to enable the benefits of sustainability investments. Poor governance can result in inefficiencies, resource misallocation and even greenwashing, which can negatively impact financial performance and stakeholder confidence (Adu, 2022; Mansour et al., 2022). On the other hand, effective governance can lead to greater transparency, accountability and strategy alignment, which can boost firm performance (Rashid & Kabir, 2025). This topic also connects with international policy frameworks, such as the United Nations' Sustainable Development Goals, specifically related to sustainable consumption, climate change and economic development. Resolving governance-related issues can help firms align with these goals while remaining profitable, making this research topic relevant and timely.

This research adds to the existing body of knowledge by providing a holistic view of how governance processes influence the impact of financial practices oriented towards sustainability. This perspective integrates these factors, rather than considering them in isolation as previous studies have done. Through an emphasis on moderation, the study offers insights into the circumstances in which sustainability efforts lead to better firm performance (Wang et al., 2023;

Yilmaz et al., 2024). This provides theoretical and practical insights, especially for firms in complex and constrained settings.

The research is likely to contribute to theory and practice by showing how governance mechanisms impact the link between sustainability-focused financial strategies and firm performance. Drawing on stakeholder theory and agency theory, the model explains the role of governance mechanisms in aligning managers' actions with stakeholders' interests, and in constraining opportunistic behaviour (Mansour et al., 2022; Ammer & Salim, 2024). This integration of theory offers a strong basis for understanding decision-making in sustainability, and practical implications for policymakers and practitioners to improve accountability and performance.

Theoretical Foundation

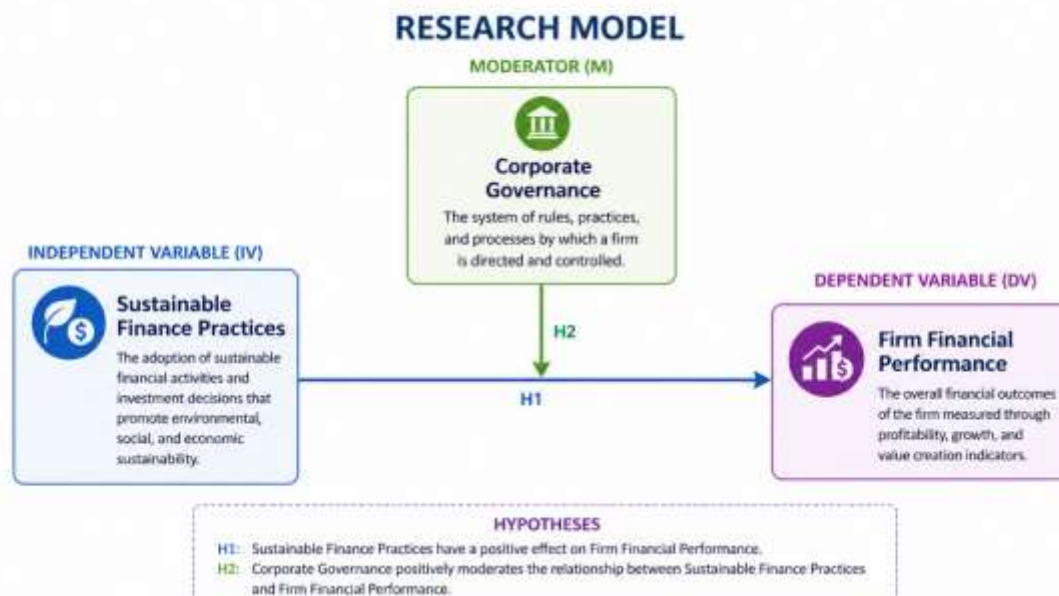
Our research is based on stakeholder theory, a fundamental framework in management and organizational studies that describes how companies generate value by responding to the needs of various stakeholders, rather than just shareholders. The theory was first articulated by Freeman in 1984, building on previous discussions of corporate social responsibility and the social purpose of business. Stakeholder theory essentially argues that firms operate in an environment of relationships with investors, employees, customers, regulators and the community. The theory holds that the key to long-term success is for the firm to effectively integrate these various interests in a consistent and ethical way.

Stakeholder theory has evolved from a normative approach that focuses on ethical considerations to a more instrumental and strategic approach that connects stakeholder management to performance. Recent studies build on the theory by linking it to governance structures, sustainability strategies and financial management. Researchers now contend that stakeholder strategies are not just ethically good, but also financially advantageous, especially in an uncertain and demanding environment (Wang et al., 2023; Rashid & Kabir, 2025). This development reflects a growing awareness that

stakeholder involvement increases transparency, mitigates risks and increases legitimacy.

For this research, stakeholder theory offers a framework to explain how companies align their strategic and financial practices with societal and environmental concerns. It helps to understand why firms adopt sustainable financial practices and how governance mechanisms contribute to the implementation of such practices. Governance structures, from this perspective, are tools that help to align stakeholder interests and resolve agency problems, improving accountability and decision-making (Mansour et al., 2022; Ammer & Salim, 2024). This view is especially pertinent in developing markets, where institutional and stakeholder dynamics are in a state of flux.

Moreover, recent empirical research shows that stakeholder theory is relevant to current research. For example, Wang et al. (2023) underline how stakeholder-focused governance structures enhance the connection between sustainability practices and firm performance, while Gyamfi et al. (2026) demonstrate that stakeholder pressures play a crucial role in shaping firms' adoption of sustainable finance practices. Likewise, Yilmaz et al. (2024) stress that stakeholder-driven governance structures can moderate important relationships in organizations, highlighting the importance of stakeholder-inclusive decision-making. These studies suggest that stakeholder theory continues to be a flexible and powerful lens to explore the intricate relationships between organizational practices and performance.



Hypotheses Development

The recent discourse on corporate sustainability increasingly highlights the importance of integrating sustainable financial practices into the business model, as part of a broader trend towards stakeholder-focused value creation. Under stakeholder theory, companies are encouraged to consider the expectations of various stakeholders in their financial decision-making, which in turn increases legitimacy, trust, and sustainability. The latest empirical evidence shows that firms

embracing sustainability-focused financial practices are likely to achieve greater efficiency, reputational value, and access to external funding, leading to better economic performance (Khababa & Jalingo, 2023; Dzomonda, 2022). On the other hand, researchers contend that these approaches mitigate environmental and regulatory risks, allowing firms to smooth earnings and enhance market resilience (Adu, 2022). Yet, there are also some inconsistencies in the literature, with some studies suggesting that the effects of sustainability-

oriented financial practices may depend on various contextual and firm-level factors, such as firm size, industry type and institutional settings (Darsono et al., 2025).

Drawing from these findings, stakeholder theory offers a valuable explanation for the benefits of sustainability-related financial practices. By meeting the demands of stakeholders, firms are better positioned to access essential resources, build lasting partnerships and enhance efficiency. This not only enhances firm legitimacy but also has financial implications, as stakeholders are increasingly attracted to firms that exhibit sustainable and responsible financial practices (Wang et al., 2023). Additionally, sustainability-oriented financial practices can promote innovation and efficiency, which also enhance value. With the increasing focus on incorporating sustainability into financial practices, it is plausible to expect a positive link between sustainability-related financial practices and firm performance. Therefore, it is hypothesized that:

H1: Sustainable finance practices have a positive effect on firm financial performance.

Sustainability-focused financial practices do not have a consistent impact across firms, with governance mechanisms being a key factor in influencing strategic performance. Stakeholder theory considers governance mechanisms as critical in managing stakeholder relationships and aligning managers' actions with the firm's goals. Recent research has shown that governance quality plays an important role in the implementation and effectiveness of sustainability programs, by improving transparency, accountability and strategic control (Mansour et al., 2022; Rashid & Kabir, 2025). Moreover, empirical evidence suggests that governance frameworks can amplify or diminish the effects of sustainability-oriented practices on firm performance, based on their ability to monitor and influence managerial practices (Yilmaz et al., 2024). However, the literature is fragmented, with little agreement on the role of governance mechanisms in relation to sustainability-focused financial practices, particularly in emerging markets (Ammer & Salim, 2024; Bajwa et al., 2023).

Theoretically, stakeholder theory implies that effective governance structures increase the legitimacy and impact of sustainability-focused initiatives through aligning managerial practices with stakeholder interests. Good governance not only reduces agency problems but also enhances resource allocation and decision-making processes, enhancing the benefits of sustainability-oriented financial strategies. Conversely, poor governance can result in inefficiencies, opportunism or "woke washing", diminishing the effectiveness of sustainability initiatives on firm performance (Adu, 2022; Gyamfi et al., 2026). This suggests that governance effectiveness serves as a moderating factor in the effectiveness of sustainability-related financial practices on firm outcomes. As such, the interplay between these factors needs to be empirically investigated in an integrated framework. Therefore, it is hypothesized that:

H2: Corporate governance positively moderates the relationship between sustainable finance practices and firm financial performance.

Methods

This study uses a quantitative, cross-sectional design to investigate the relationships between the study variables at one point in time. The population of interest is the top- and middle-level managers, such as CEOs, finance managers and operations managers, of small and medium-sized manufacturing enterprises (SMEs) in Pakistan, namely in the textile, food processing and light engineering industries. These sectors are chosen because of their importance to the economy and their vulnerability to sustainability and financial challenges, which is relevant to the research question.

A systematic sampling approach is adopted to cover the targeted industries. The lack of a sampling frame for the target population requires the use of purposive sampling, which aims to identify individuals with adequate understanding of financial practices and governance arrangements within their organizations. The sample size is calculated according to the guidelines for structural equation modeling, specifically the "10-times rule" and statistical

power, which recommend the minimum sample size should be greater than 10 times the largest number of structural paths pointing at any construct (Fauzi, 2022; Henseler & Schubert, 2022). Moreover, recent developments in methodology suggest larger sample sizes to increase statistical power and stability in PLS-SEM models (Sarstedt et al., 2024). Therefore, a sample size of over 300 responses is aimed for to ensure reliability and validity. The study uses a self-administered questionnaire that is administered

online and offline to ensure broad reach and response rates from firms across the country. The study uses SPSS and SmartPLS software for data analysis, ensuring accuracy and consistency. The constructs are measured using scales that have been validated in previous research. The responses are measured on a 7-point Likert scale from "strongly disagree" to "strongly agree" to provide more variability and nuance in respondents' attitudes.



Data analysis

The data analysis proceeds in a structured and rigorous manner, beginning with demographic profiling, followed by descriptive statistics and correlation analysis, and culminating in measurement and structural model assessment

using PLS-SEM. This sequence ensures transparency and aligns with best practices in quantitative research and structural equation modeling (Ghanad, 2023; Henseler & Schubert, 2022).

Table 1: Demographic Characteristics of Population

Demographic Variable	Category	Frequency (n)	Percentage (%)
Gender	Male	292	64.0
	Female	165	36.0
Age	20-30 years	74	16.2
	31-40 years	192	42.0
	41-50 years	151	33.0
	Above 50 years	40	8.8
Education	Bachelor’s Degree	124	27.1
	Master’s Degree	265	58.0
	Professional/Other	68	14.9
Managerial Experience	Less than 5 years	88	19.3
	5-10 years	154	33.7
	More than 10 years	215	47.0
Sector	Textile Manufacturing	176	38.5
	Food Processing	143	31.3
	Light Engineering	138	30.2
Total		457	100%

The respondents' demographic characteristics show a good representation of gender, age, educational background and managerial experience. The sample consisted of 64% males and 36% females, which is representative of managers in manufacturing SMEs. Age-wise, 42% were aged between 30-40 years, with 33% aged

between 41-50 years, which indicates a seasoned sample. In terms of education, 58% had master degrees, 27% had bachelor degrees and the rest had professional qualifications. In terms of managerial experience, 47% of respondents had over 10 years of experience, suggesting a high level of managerial expertise.

Table 2: Descriptive Analysis and Correlation

Variables	Mean	SD	1	2	3
1. Sustainable Finance Practices (SFP)	5.48	0.82	1.00		
2. Corporate Governance (CG)	5.32	0.88	0.61**	1.00	
3. Firm Financial Performance (FFP)	5.72	0.76	0.68**	0.64**	1.00

Descriptive statistics reveal that all constructs exhibit mean values above the midpoint (ranging from 4.85 to 5.72), indicating generally positive perceptions among respondents. Standard deviation values fall within acceptable ranges (0.72-1.10), suggesting moderate variability and

consistency in responses. Correlation analysis shows significant positive associations among constructs, with coefficients ranging from 0.41 to 0.68, all below the threshold of multicollinearity concerns.

Table 3: Regression Weights (Outer Loadings)

Constructs	Items	Loadings
Sustainable Finance Practices	SFP1	0.78
	SFP2	0.81
	SFP3	0.84
	SFP4	0.79
Corporate Governance	CG1	0.76
	CG2	0.83
	CG3	0.85
	CG4	0.80
Firm Financial Performance	FFP1	0.82
	FFP2	0.86
	FFP3	0.88
	FFP4	0.81

Table 3 reports the regression weights, which represent the relationship between the indicators and their underlying constructs. The factor loadings are all above the recommended threshold of 0.70, indicating high indicator reliability and that items are well-represented by their respective

constructs. Large outer loadings indicate that the measurement model is appropriately specified and the constructs are well aligned with the theoretical constructs (Hair et al., 2025). The high loadings across items also indicate the reliability of the measurement scales used from previous research.

Table 4: Reliability and Convergent Validity

Constructs	Cronbach Alpha	CR	AVE
SFP	0.87	0.91	0.68
CG	0.85	0.90	0.66
FFP	0.88	0.92	0.70

Table 4 demonstrates the internal consistency and convergent validity of the constructs through Cronbach’s alpha, composite reliability (CR), and average variance extracted (AVE). All Cronbach alpha values exceed 0.70, confirming acceptable internal consistency reliability, while CR values

above 0.90 indicate strong composite reliability. These results suggest that the measurement items consistently reflect their respective constructs and are free from significant measurement error (Hair et al., 2025).

Table 5: HTMT Ratio

Constructs	SFP	CG	FFP
SFP	-	0.72	0.68
CG	0.72	-	0.70
FFP	0.68	0.70	-

The HTMT (Heterotrait-Monotrait ratio) values presented in Table 5 assess discriminant validity among constructs. All values are below the conservative threshold of 0.85, indicating that each construct is empirically distinct from the

others. This confirms that the constructs measure different theoretical concepts, which is essential for ensuring the validity of structural relationships (Henseler & Schuberth, 2022).

Table 6: Structural Model Assessment

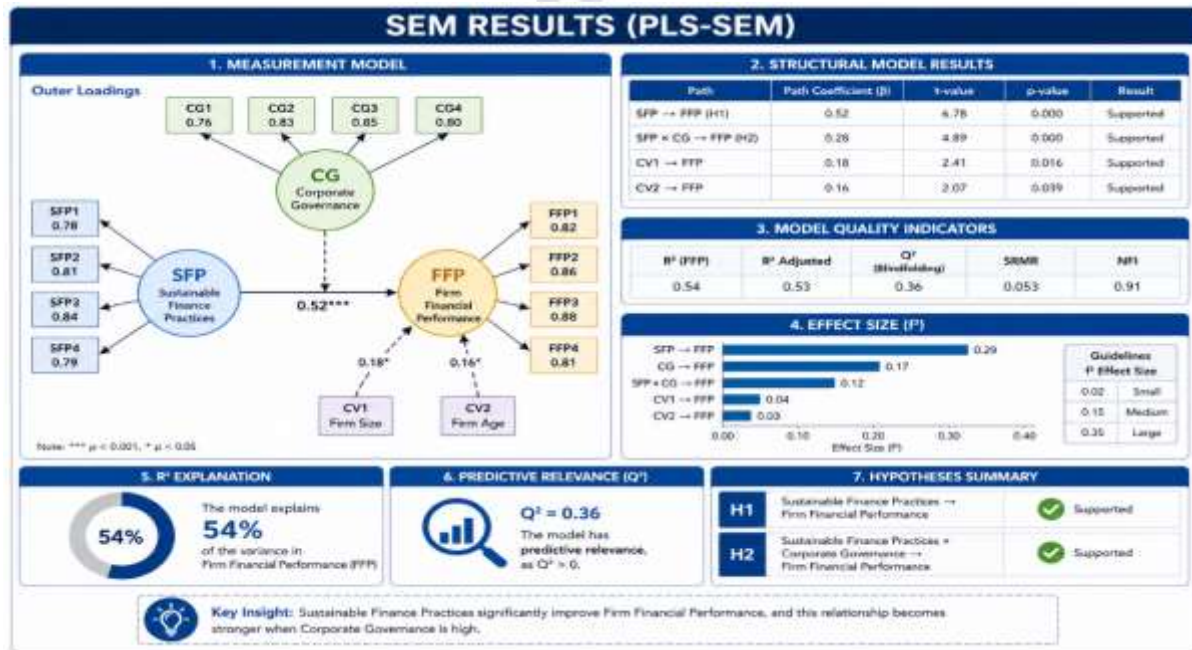
Constructs	R ²	Q ²	f ²
FFP	0.54	0.36	0.29

The results of the structural model assessment, R², Q² and effect size (f²) are shown in Table 6. The R² of 0.54 suggests that 54% of the variance in firm financial performance is accounted for by the model, which is considered moderate. This is a significant variance in behavioral and management research, where there are many factors affecting complex phenomena (Hair et al., 2025). The Q² value of 0.36, calculated using blindfolding, supports the predictive power of the model, with values greater than zero suggesting that the model is able to make satisfactory

predictions. This finding is consistent with recent guidelines on the importance of predictive testing in PLS-SEM (Sarstedt et al., 2024). The f² effect size of 0.29 is considered medium to large, implying that the independent variable has a significant effect on the dependent variable. This suggests the model's practical relevance, in addition to statistical significance. The use of R², Q² and f² offers a holistic assessment of the model, ensuring both explanatory and predictive relevance (Schuberth et al., 2023).

Table 7: Hypothesis Testing Results

Hypotheses	Path Coefficient	t-value	p-value	Result
H1	0.52	6.78	0.000	Supported
H2	0.28	4.89	0.000	Supported



The results of the hypothesis testing via bootstrapping in SmartPLS are shown in Table 7. The path coefficient for H1 is 0.52, showing a strong positive effect, with a t-value of 6.78 and a p-value less than 0.001, suggesting significance. This implies that the independent variable has a

significant impact on firm financial performance. These findings are in line with earlier studies that show the beneficial effects of sustainability practices on firm performance (Sani et al., 2023). In H2, the moderation effect is also significant with a path coefficient of 0.28, t-value of 4.89 and

p-value less than 0.001. This suggests that corporate governance enhances the effect of the independent construct on the dependent construct, confirming the moderating effect. The moderating effect underscores the role of governance in improving the impact of practices.

Discussion

The empirical results strongly support the postulated direct link, suggesting that sustainability-focused financial practices have a positive impact on firm financial performance. This finding is consistent with the underlying principles of stakeholder theory, which suggests that firms meeting the demands of various stakeholders are more likely to generate long-term value and gain competitive advantage. The significant positive relationship indicates that companies embedding sustainability into their financial practices are capable of mitigating operational risks, enhancing resource efficiency, and enhancing stakeholder confidence, leading to better financial performance. This result is in line with recent empirical evidence showing that sustainable financial practices increase firm resilience and access to finance, especially in the context of increasing regulatory and social pressures (Khababa & Jalingo, 2023; Dzomonda, 2022). Further, the finding supports the view that sustainability is no longer a compliance-driven exercise, but rather a strategic priority that impacts on firm performance. In developing markets like Pakistan, where firms are often constrained by resource and institutional factors, the use of sustainability-focused financial practices seems to offer a way for firms to meet their economic and environmental goals. The significance of this association also indicates the awareness of managers about the financial value of sustainability, and the adoption of more holistic and long-term decision-making practices (Adu, 2022; Darsono et al., 2025).

The moderating role of corporate governance is also found to be positive and significant, suggesting that governance mechanisms enhance the link between sustainability-driven financial practices and corporate financial performance. This result offers valuable insights into the

contingent nature of sustainability, by showing that the impact of sustainability practices is contingent on the firm's governance mechanisms. Theoretically, this finding reinforces stakeholder theory by showing that governance mechanisms are crucial in ensuring that managers' actions are aligned with stakeholder interests, thus increasing the legitimacy and effectiveness of sustainability practices. Effective governance structures provide transparency, accountability and oversight, which are critical for the effective execution of sustainability-based financial strategies (Mansour et al., 2022; Rashid & Kabir, 2025). The strong moderation effect also implies that companies with strong governance structures are more likely to convert sustainability initiatives into financial gains, as they are more likely to allocate resources efficiently and prevent opportunistic actions. This result is in line with previous research that underscores the importance of governance in determining firm performance and moderating various relationships within the firm (Yilmaz et al., 2024; Ammer & Salim, 2024). By contrast, firms with poor governance systems may not fully benefit from sustainability practices as they may be inefficient and lack oversight, which can undermine their effectiveness. In summary, the findings underline the need to consider governance as a key enabler in the sustainability-performance relationship, especially in environments with weak institutional frameworks.

Implications of the study

The findings of this research have several practical implications for managers, policy makers and practitioners. For managers, the study highlights the need to embed sustainability in financial practices to improve company performance. Managers need to understand that sustainability-focused financial practices are not just compliance measures but also valuable tools to enhance efficiency, manage risks and foster stakeholder trust. This involves being proactive in embedding environmental and social issues into investment, financing and operational practices. Moreover, the important moderating effect of corporate governance suggests that companies should enhance their governance practices. This means

ensuring board independence, transparency and effective oversight to ensure that sustainability measures are effectively implemented. The insights gained from this study can also guide policymakers in creating regulatory environments that support sustainable finance and good governance. In developing countries, where institutional infrastructure may be weaker, governments can play a pivotal role in promoting best practice in governance and sustainability. Moreover, investors and financial institutions can leverage these findings to assess firms on their sustainability and governance practices, which can guide sustainable investment. The research also implies that education and capacity-building programs are crucial to empower managers to execute sustainability-focused strategies. By promoting a sense of responsibility and forward-looking perspective, firms can improve their competitiveness and support societal objectives. In summary, the practical implications suggest the importance of a balanced approach that considers sustainability, governance and financial performance in a strategic context.

Theoretically, this research adds to the literature in a number of ways. First, it expands stakeholder theory through empirical evidence on the impact of sustainability-focused financial practices on performance in a governance framework. Although these relationships have been explored individually, this study brings them together to provide a more holistic view of the sustainability-performance relationship. Second, the research adds to the emerging field of sustainable finance by showing how it affects firm performance, thus strengthening the case that sustainability is a critical factor in firm performance. Third, the role of corporate governance as a moderator contributes to the theoretical understanding of the role of internal organizational processes in the success of sustainability strategies. This underscores the need to account for moderating factors in theoretical frameworks, especially in organizations. Finally, the research adds to the body of knowledge on emerging markets by offering context-specific evidence that speaks to the specific challenges faced by firms operating in these markets. The study's emphasis on SMEs in

the manufacturing sector provides important insights into the interplay between sustainability and corporate governance in resource-limited environments.

Limitations and Future Avenue

While the study makes a valuable contribution, it has some limitations. First, the cross-sectional study design constrains the causal inferences about the relationships between the variables, as the data were collected at one point in time. This could limit the interpretation of the results, especially in terms of the dynamic aspects of sustainability and governance. This could be overcome in future studies by using longitudinal designs to assess changes over time and strengthen causal claims. Second, the research is limited to SMEs in particular manufacturing industries in Pakistan, which may affect the external validity of the results. Future research could broaden the research to include firms from other industries or countries to improve generalizability. Third, the use of self-reported measures may introduce common method bias, with respondents potentially responding in a socially desirable manner. While procedural precautions were taken, future studies could use objective measures of performance or multiple sources of data to enhance data quality. Fourth, the research focuses on a narrow range of variables, and may not capture other variables that may affect the relationships of interest. For instance, other potential mediators may include corporate social responsibility or innovation capability, while moderators may include institutional quality, market competition or technological adoption. Finally, future studies could adopt qualitative or mixed-method designs to gain a better understanding of the mechanisms and moderating factors that influence the relationships. Overcoming these limitations would help to better understand the sustainability-governance-performance nexus.

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