# Sustainable Leadership and Green Investment Decisions: The Role of ESG Integration in Reducing Financial Risk

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**Abstract:** This study aims to address this gap by exploring the relationship between sustainable leadership and decisions on green investment, as well as how incorporating ESG can serve as a strategic approach to reducing financial risks. It takes an empirical approach, gathering data from finance and corporate management professionals and decision-makers. The study was conducted systematically. It starts with an introduction, followed by a literature review and theoretical background. The hypotheses are developed and the conceptual framework presented in the next section. After that, methodology is presented, including data collection and analysis by Smart PL. The results and discussion interpret the results and findings, while conclusions, policy and financial management implications, and future research directions are presented. This study brings together leadership and perspective with ESG-informed investment approaches and delivers a nuanced perspective on how sustainability and financial stability can be aligned at organizations. In this study, the relationship between Sustainable Leadership (SL), ESG Integration (ESGI), Green Investment Decisions (GID), Financial Risk Reduction (FRR), and Organizational Performance (OP) is explored. The study is based on empirical survey data collected from 667 respondents (out of 700) from different professional spheres in India. The analysis of the proposed model is carried out as direct and indirect relationships between the constructs are evaluated using Partial Least Squares Structural Equation Modeling (PLS-SEM) in Smart PLS.

**Keywords:** Sustainable leadership, ESG integration, Green investment, Financial risk, PLS-SEM

## 1. Introduction

The world of business is rapidly changing, as climate change concerns continue to grow, environmental degradation and resource scarcity have become common issues, stakeholders are increasingly active in business, and regulators have ever stricter expectations. The concept of financial return is no longer the sole standard used to measure an organisation; now it is also increasingly measured based on how well it creates sustainable value and how well it handles environmental, social and governance (ESG) responsibilities (Ailman et al., 2017). This paradigm shift has changed the business landscape, forcing companies to rethink leadership, investments, risk management, and performance. Sustainability has evolved from a peripheral concern to a core of corporate strategy. Leadership critically shapes sustainability outcomes. Sustainable leadership integrates economic, environmental, social, ethical, and long-term stakeholder value into strategic decision-making (Ali et al., 2024). Unlike traditional leadership emphasizing short-term financial performance, sustainable leadership prioritizes resilience, responsible resource management, and long-term value creation across generations.

These leaders develop an organizational culture to inspire sustainable thinking, innovation and investment that can deliver economic and social benefits (Omitogun & Al-Adeem, 2019).

. Environmental, social, and governance (ESG) information is being demanded more than ever by regulators, investors, customers, and other stakeholders for organizations to be transparent about (Ponnusamy et al., 2021). ESG integration has evolved from a voluntary reporting practice into a strategic management tool that shapes investment decisions, organizational reputation, access to capital, and long-term financial sustainability.

This shift is increasingly reflected in the rise of green investment decisions. In the context of green investments, environmental aspects refer to the financial and organizational investment in environmentally responsible projects, environmentally friendly energy technologies, energy saving systems, measures for pollution reduction, sustainable infrastructure and many other environmentally sensible initiatives (Rijanto, 2024).

Financial risk management is also an upcoming topic in the research on sustainability. The financial risks for organizations of all industries have increased due to environmental disruptions, climate-related events, regulatory penalties, reputational crises and stakeholder pressures (Javadnejad et al., 2024). The variety of these sustainability-related exposures are not fully reflected in traditional risk management practices. As a result, there has been an increasing debate about the potential of sustainability investments and ESG governance

mechanisms to be effective in lowering financial uncertainty (Schmidt-Hebbel & Serven, 2000; Sheela et al., 2023). However, evidence-informed explanations of the potential for measurable risk reduction from leadership-influenced sustainability programs is still limited and fragmented.

While the concepts of sustainable leadership, ESG practices, green investments and organizational performance have received attention in separate studies, few studies have explored the interconnections of these concepts in a coherent manner (Sisay et al., 2022). Previous studies are often siloed and focused on the variables examined separately, neglecting the sequential nature of how sustainability leadership can be related to organizational results.

## 2. Literature Review

Sustainability has moved to the center of business strategy, reshaping approaches to leadership, governance, resource allocation, and performance management (Zhao et al., 2024). Concerns over climate change, environmental degradation, social inequality, and corporate accountability pressure organizations to adopt practices that create long-term value and meet stakeholder expectations (Mackey et al., 2019). Consequently, sustainable leadership, ESG integration, and environmentally responsible investment strategies have become strategic priorities. This shift has intensified academic debate on how sustainability-oriented governance enhances organizational effectiveness.

### 2.1 Sustainable Leadership and ESG Integration

Sustainable leaders balance economic, social, and ecological priorities in decision-making. Research shows leadership central to embedding sustainability (Ostojic et al., 2024). Leadership commitment influences priorities, resource allocation, governance structures, and stakeholder engagement, likely integrating ESG considerations into strategic activities. ESG integration institutionalizes sustainability by incorporating environmental, social, and governance factors into risk assessment, performance measurement, planning, and investment decisions (Ge & Campopiano, 2022). Prior studies associate leadership commitment with ESG adoption. Sustainable leadership therefore represents an antecedent to effective ESG implementation.

### 2.2 Sustainable Leadership and Green Investment Decisions

The study of the link between leadership and decision on investments has been long of interest in strategic management and corporate finance studies. Leadership affects organizational investment behaviour through its impact on strategic priorities, risk perceptions, agendas of innovation, and patterns of investments (Han et al., 2023).

Green investment decisions are investments made by organizations towards projects and initiatives that produce environmental benefits and benefit economic goals (Erin et al., 2023). The investments typically involve renewable energy technologies, sustainable infrastructure, energy-efficient production systems, waste reduction projects, and environmentally responsible innovation projects.

The literature and research is growing to clearly show that leaders who are concerned about sustainability are more likely to invest in investments that cause long-term environmental and social benefits (Khan et al., 2016). Strategic resistance instead of profitability focus helps provide a company with a framework for investing in initiatives that will help improve future competitiveness while minimizing environmental impacts (Post & Le Billon, 2024). Leadership commitment is therefore considered as a significant factor affecting green investment behavior.

### 2.3 Integrating ESG Principles into Investment Decisions

ESG has become much more significant than ever before in the way organizations are assessing investment opportunities (Mirza et al., 2025). Traditional assessment methods of investments were mainly based on financial parameters like profitability, liquidity and return on investment.

It offers a way for companies to have clear processes on how to evaluate the environmental, social, and governance (ESG) effects of investment options (Oztemel & Gursev, 2020). In this process, companies can uncover opportunities and risks related to sustainability that could impact company performance over time.

Research indicates that companies with better ESG integration skills tend to be more likely to invest in the environment.Research also shows that companies with more robust ESG capabilities are more likely to make environmental investments (Paraskeva & Tsoulfas, 2025). ESG frameworks push decision-makers to think about externalities related to sustainability that would not have been taken into account in traditional financial analysis

(Klimczak et al., 2022). However, researchers also have suggested that by itself, incorporating ESG does not necessarily lead to sustainable investment practices.

### 2.4 The Program Will Cover Financial Risk Reduction and Green Investment Decisions

The link between sustainability-oriented investments and financial risk management has become more prominent in the academic and practitioner world (Ruhnke, 2023). Modern businesses must deal with many sustainability challenges such as environmental liabilities, climate change-related disruptions, regulatory fines, reputation and stakeholder activism. These risks have financial impacts and can impact organizational stability and performance.

Green investments are becoming one of the most important tools to deal with such exposures. Environmental innovation, cleaner production technologies, sustainable supply chains, and investments in renewable energy can help lower vulnerabilities related to operation and enhance compliance with new regulations (Sharma et al., 2022).

### 2.5 The Quality of Financial Risk Reduction and Organizational Performance

Financial risk management has long been considered one of the key factors for the success of an organization. Decreased uncertainty improves management decision making, better capital allocation efficiency, better long term planning and better stakeholder confidence (Sewpersadh, 2025). In sustainability literature, financial risk reduction is nowadays considered as a key process between sustainability and organizational performance.

Those that successfully manage sustainability risks are likely to benefit from access to financial resources, increased investor confidence, improved customer loyalty, and increased resilience to operations. Such benefits directly and indirectly lead to better organizational outcomes (Lam & Dongol, 2022). In addition, clear governance procedures and prudent risk management procedures enhance the organization's legitimacy, making relationships with investors, regulators, and other stakeholder groups more positive.

Together, the literature implies a sequential sustainability pathway, where the sustainable leadership facilitates the integration of ESG, the integration of ESG in turn encourages green investment decision, green investment decision, in turn, contributes to financial risk reduction, and reduced financial risk in turn helps to improve the organizational performance (Kaiser, 2020). Although there is an increasing well of interest in these individual relationships, empirical research on these relationships within an integrated framework has been limited (Oláh et al., 2020). The gap created is a theoretical basis for the present study and supports the development of the proposed conceptual model.

## 3. Research gap

This study addresses gap by testing framework linking Sustainable Leadership, ESG Integration, Green Investment Decisions, Financial Risk Reduction, and Organizational Performance. Using 667 Indian professionals and decision-makers and PLS-SEM, it examines how sustainability-oriented leadership shapes ESG integration, investment choices, risk reduction, and outcomes (Wong et al., 2024). Its contribution is theoretical and practical. For executives, investors, policymakers, and boards, findings clarify how leadership-driven sustainability strategies strengthen resilience, improve performance, and support environmental responsibility, financial stability, and long-term competitive advantage.

## 4. Research Methodology

The research design in this study is quantitative, explanatory and cross-sectional research.The research design of this study is quantitative, explanatory and cross-sectional research. The quantitative approach is suitable in this research because the research aims to test the hypotheses that have been previously formulated and measure the relationships of the relationships between causal variables between two constructs with latent variables in a sustainability paradigm in the organizational context. A sample of 700 professionals and decision makers from different sectors in India was targeted and 667 were selected as respondents. The respondents have been chosen due to their practical experience in the field of Corporate Finance, Sustainability Management, ESG practices, Investment Evaluation, and FIRs decision-making process, making them valuable sources of information for evaluating the proposed model. Structured questionnaire was the primary data collection tool used. Each construct was assessed using multiple reflective indicators that reflected the theoretical aspects of sustainable leadership, integration of ESG, green investment behavior, financial risks mitigation and organizational performance. The responses were taken on a Likert scale of 1 to 5 indicating the participants' level of agreement with each measurement item. The collected data were initially checked for completeness,

consistency, and appropriateness of multivariate statistical testing.Partial Least Squares Structural Equation Modeling (PLS-SEM) with SmartPLS was used for the study.

*Hypotheses*

*H1: Sustainable Leadership has a positive impact on ESG Integration.*

*H2:The impact of Sustainable Leadership on Green Investment Decisions is positive.*

*H3: Green Investment Decisions are positively affected by ESG Integration.*

*H5: The financial risk reduction reflects positively to Green Investment Decision.*

*H5: Financial Risk Reduction has a positive impact on Organizational Performance.*

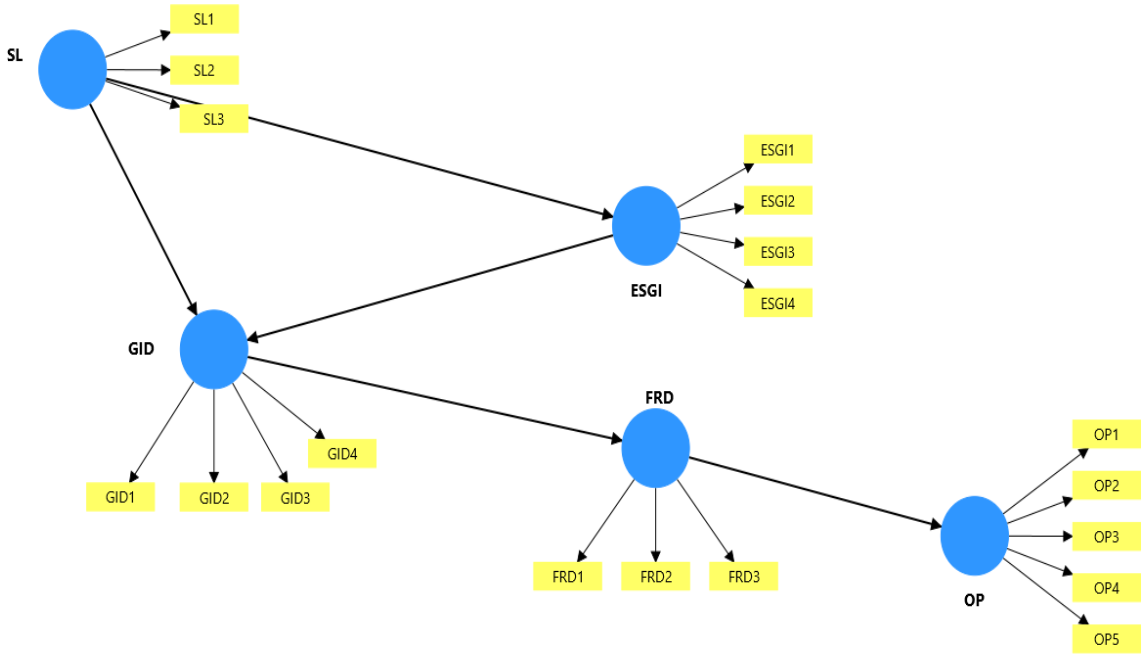



**Figure 1: Sustainable Leadership–ESG Structural Framework**

The proposed conceptual framework for the hypothesized structure among the Sustainable Leadership (SL), ESG Integration (ESGI), Green Innovation Development (GID), Financial Reporting Disclosure (FRD), and Organizational Performance (OP) is shown in figure 1. SL is modeled as a main independent construct as it is of strategic importance in the context of embedding sustainability oriented values into organizational systems. SL is likely to have a direct impact on ESGI, and to have an influence on GID, suggesting that sustainability-focused leadership can foster a more general shift to innovation and environmental practices. ESGI also plays a part in GID, proposing that a structured approach to ESG implementation can enhance the innovation capacity of an organization. GID, in turn, impacts FRD, suggesting that the quality and breadth of financial and sustainability-related disclosures might be improved by green innovation practices. Lastly, FRD is hypothesized to affect the dependent construct OP. The framework suggests ESGI, GID, and FRD are intermediate mechanisms that could indirectly contribute to sustainable leadership having a positive effect on organizational performance.

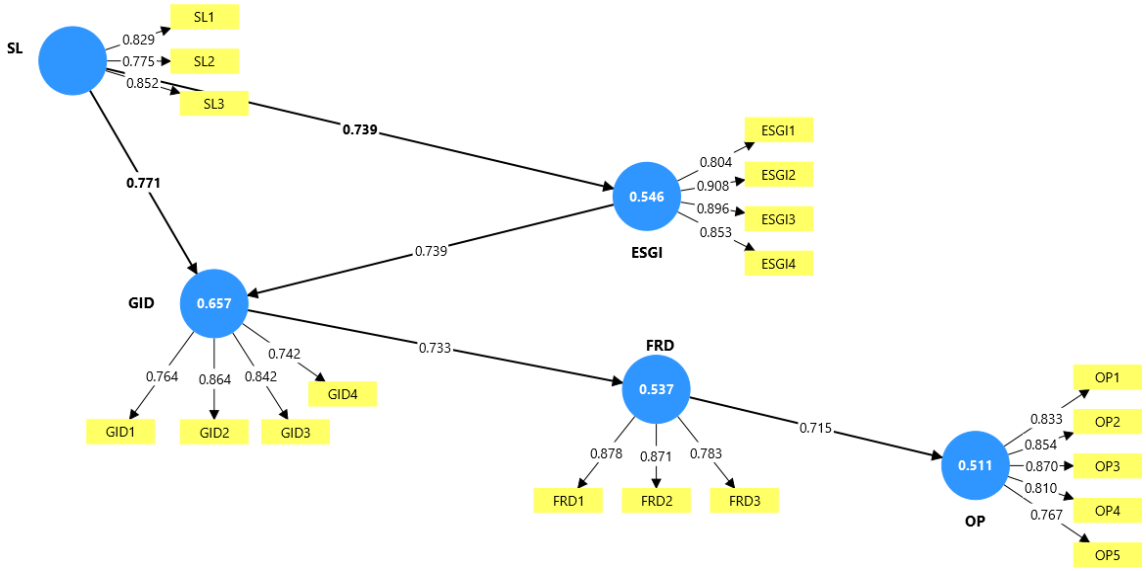



**Figure 2: Structural Model Results**

The results of the PLS-SEM structural model are presented in Figure 2, which depicts the relationships among the variables in this study.

The structural paths indicate positive relationships among the constructs. The coefficient of the SL on GID is 0.771, which indicates a strong positive relation with GID, and the coefficient of the SL on ESGI is 0.739, indicating a positive relation for ESGI as well. This means that leadership in sustainability has a positive influence on both the green innovation capability and the ESG implementation. ESGI is also positively correlated with GID (0.739), suggesting that more advanced integration of ESGs could contribute to innovation-based sustainability practices. GID in turn positively influences FRD with a coefficient of 0.733 and FRD positively influences OP with a coefficient of 0.715.

The $R^2$ values of the endogenous constructs show that ESGI, GID, FRD and OP explain 0.546, 0.657, 0.537 and 0.511 of the variance within the constructs respectively. The loadings of indicators onto the latent variables are relatively good, and most of them are higher than the standard of 0.70. From the overall picture, the model proposes a coherent structural mechanism by which sustainable leadership positively influences organizational performance indirectly by integrating ESG into the organization, developing green innovation, and disclosing financial report on sustainability.

**Table 1: Reliability and Convergent Validity Assessment**

| | Cronbach's alpha | Composite reliability (rho_a) | Composite reliability (rho_c) | Average variance extracted (AVE) |
|---|---|---|---|---|
| **ESGI** | 0.889 | 0.893 | 0.923 | 0.751 |
| **FRD** | 0.798 | 0.803 | 0.882 | 0.714 |
| **GID** | 0.817 | 0.821 | 0.88 | 0.648 |
| **OP** | 0.884 | 0.887 | 0.916 | 0.685 |
| **SL** | 0.755 | 0.762 | 0.859 | 0.671 |

The reliability and convergent validity results are shown in Table 1 for the five latent constructs in the measurement model, namely ESG Integration (ESGI), Financial Reporting Disclosure (FRD), Green Innovation Development (GID), Organizational Performance (OP) and Sustainable Leadership (SL). Cronbach's alpha values are in the range of 0.755–0.889, which is higher than the recommended value of 0.70. This means that the indicators for each construct have satisfactory internal consistency as well as adequate overlap in the assessment of theoretical dimensions of the construct.

The composite reliability results also suggest that the measurement model is robust. The rho_a values range from 0.762 to 0.893, while the rho_c values vary between 0.859 and 0.923.

The Average Variance Extracted (AVE) is used to determine the convergent validity. The range of AVE values is 0.648-0.751, which is all above the minimum recommended value of 0.50. This means that each construct accounts for over 51% of the variance in the items measuring that construct, thus indicating that the items have a reasonable degree of convergence. In terms of the indicators, they are not spread out in unrelated conceptual domains, but rather, they merge in a sensible way around the domain of interest in the domain of interest.

In sum, the results are good evidence of the statistical reliability and conceptual validity of the measurement model. The internal consistency is supported by the satisfactory Cronbach's alpha and composite reliability, and the convergent validity is supported by the AVE results. Thus, constructs of ESGI, FRD, GID, OP, and SL can be used for further assessment of the structural model, such as hypothesis testing, interpretation of path coefficients, and estimation of the explanatory power of the model.

**Table 2: Structural Path Coefficients**

| | **Path coefficients** |
|---|---|
| **ESGI -> GID** | 0.373 |
| **FRD -> OP** | 0.715 |
| **GID -> FRD** | 0.733 |
| **SL -> ESGI** | 0.739 |
| **SL -> GID** | 0.496 |

In the model, Sustainable Leadership (SL) is the primary antecedent as it directly affects ESGI and GID. The highest path is between SL and ESGI (sustainability-oriented leadership) with a coefficient of 0.739, indicating that sustainability-oriented leadership is a significant contributor to the reinforcement of environmental, social, and governance practices in organizational systems. SL also shows a positive relationship with GID, with coefficient of 0.496, which means that leadership that is committed to sustainability can help develop green innovation, but the relationship is relatively weak as shown in the table 2.

The coefficient of ESGI to GID is 0.373 with a moderate positive relationship. This means that the effect of ESG integration on developing green innovation can happen concurrently with other organizational skills, and leadership commitment, technological readiness and strategic resource allocation. The coefficient of GID with FRD is 0.733 and is a very strong predictor of FRD in the later stage of the model. In this association, organizations that are making more progress in green innovation tend to disclose more financial reporting information, and that disclosure information is of higher quality and more extensive, especially in terms of accountability and transparency in relation to innovation practices.

Finally, there is a strong positive relationship with FRD and OP with a coefficient of 0.715. This suggests that better reporting disclosure can have a positive impact on organisational performance by providing transparency, credibility and confidence to those affected by the organisation.

**Table 3: R-square and Adjusted R-square Assessment of the Structural Model**

| | **R-square** | **R-square adjusted** |
|---|---|---|
| **ESGI** | 0.546 | 0.546 |
| **FRD** | 0.537 | 0.536 |
| **GID** | 0.657 | 0.656 |
| **OP** | 0.511 | 0.51 |

The R-square and adjusted R-square values for the endogenous constructs in the PLS-SEM structural model are shown in Table 3, which includes ESG Integration (ESGI), Financial Reporting Disclosure (FRD), Green Innovation Development (GID), and Organizational Performance (OP). An R-square value represents the percentage of variance in the endogenous construct explained by the predictor construct (or constructs). The adjusted R-square value, on the other hand, is more conservative as it takes into account model complexity and the number of the predictors that are part of the structural specification.

The R2 and adjusted R2 values are the highest for GID with values of 0.657 and 0.656, respectively, among the reported constructs. It shows that the model has a relatively high predictive contribution in explaining the variance in Green Innovation Development, as 65.7% of the variance is explained by the antecedent variables.

ESGI is the next highest with an $R^2$ value of 0.546, which equates to 54.6% of variance explained by Sustainable Leadership. The results of this study also demonstrate acceptable explanatory power of FRD (R2 = 0.537 and adjusted R2 = 0.536) which means that the financial reporting disclosure practices can be meaningfully explained by Green Innovation Development. Likewise, the $R^2$ value for OP is 0.511 and the adjusted $R^2$ value is 0.510, indicating that 51.1% of the variance in OP is explained by Financial Reporting Disclosure.

The overall R-squared values suggest that the model has a moderate to strong explanatory power, a result that is suitable for behavioral, managerial, and organizational studies, where several contextual factors can affect the outcomes. The tiny difference between $R^2$ and adjusted $R^2$ values also indicate the stability and parsimony of the model and that the model is not overfit with the inclusion of unnecessary predictors. Hence, the structural model is adequately explanatory, and it offers a sound foundation for understanding the proposed relationships between the constructs.

## 5. Discussion

Sustainable leadership shapes investment practices and organizational performance by embedding ESG principles into strategic decision-making. In response to climate risks and regulatory pressures, leaders promote ESG integration and green investments to reduce financial uncertainty. Sustainable Leadership strongly influences ESG Integration ($\beta = 0.739$), demonstrating that ESG adoption is primarily driven by leadership orientation rather than compliance requirements. Integrating ESG into governance and risk management supports long-term value creation.

Sustainable Leadership also contributes to Green Investment Decisions ($\beta = 0.496$) by encouraging investments in renewable energy and clean technologies despite initial costs. ESG Integration further supports these decisions ($\beta = 0.373$) through improved risk identification, although technological readiness and available resources remain important constraints. Green Investment Decisions significantly reduce Financial Risk ($\beta = 0.733$) by limiting regulatory penalties and operational disruptions. In turn, Financial Risk Reduction enhances Organizational Performance ($\beta = 0.715$) through stronger strategic planning and increased stakeholder trust. The model shows robust explanatory power: Green Investment Decisions ($R^2 = 0.657$), ESG Integration ($R^2 = 0.546$), Financial Risk Reduction ($R^2 = 0.537$), and Organizational Performance ($R^2 = 0.511$). These values are especially significant in research situations involving organizations and behavior where many other factors may be impacting results.

Reliability and validity evaluation are added support for the robustness of the findings of the study. The Cronbach alpha values for all constructs are above the recommended value of 0.70, indicating good internal consistency. Similarly, reliability of the composite scale is good and convergent validity is good with AVE>0.50. Based on these results, it can be concluded that the instruments used for measuring the Sustainable Leadership, ESG Integration, Green Investment Decisions, Financial Risk Reduction, and Organizational Performance are able to measure the theoretical dimensions of the Sustainable Leadership. Thus, the structural relationships observed can be interpreted with great certainty.

In theory, the research contributes to the field of the leadership-driven sustainability process and its resulting effects on the organization. The proposed framework is not focusing on sustainability practices in isolation, but rather is capturing a process or sequential relationship between leadership, integration of sustainability in investment practices, green investment behavior, financial risk and performance. This holistic approach advances sustainability and management knowledge by demonstrating the interdependence of leadership, governance, investment decisions, and organizational performance. The findings offer practical implications for executives, investors, policymakers, and boards. Organizations should develop sustainability-oriented leadership capabilities to strengthen resilience and competitiveness. ESG integration should be embedded in strategic planning and investment assessment rather than viewed solely as a compliance requirement. Green investments should be recognized as strategic initiatives that deliver both financial and non-financial benefits. As climate and social challenges reshape markets, firms that effectively align ESG practices, leadership approaches, and sustainable investment strategies are more likely to achieve superior performance and long-term financial resilience.

## 6. Conclusion

This study contributes to sustainability and corporate governance literature by empirically examining the relationships among Sustainable Leadership, ESG Integration, Green Investment Decisions, Financial Risk Reduction, and Organizational Performance. Under conditions of environmental uncertainty, regulatory

pressure, and rising accountability demands, sustainability-oriented leadership emerges as a strategic organizational asset. Sustainable Leadership drives this framework by embedding long-term objectives, ethical governance, and stakeholder engagement, creating the foundation for effective ESG Integration. Rather than representing mere compliance, ESG Integration translates leadership values into operational practices and investment decisions. Together, Sustainable Leadership and ESG Integration influence Green Investment Decisions by promoting renewable energy, resource efficiency, innovation, and the incorporation of environmental and social considerations. Thus, investments are embedded in governance. Green Investment Decisions reduce risk by mitigating regulatory uncertainty, environmental liability, and market instability, improving Organizational Performance, attracting investment, and sustaining competitiveness. These conclusions are supported by assessments; reliability and explanatory power support the framework.

From a theoretical point of view, this study contributes to the existing knowledge by suggesting and testing a sequential sustainability pathway by which leadership impacts organizational outcomes. While the study acknowledges that leadership, ESG practices, investment behaviour and performance are separate constructs, it showcases how they are interrelated and are part of an integrated sustainability ecosystem. The integrated approach adds depth to the understanding of the value creation potential of sustainability-oriented governance mechanisms on multiple organisational dimensions.

The results highlight a need from a managerial and policy perspective to integrate the sustainability dimension in leadership development and strategic planning, as well as in governance and investment analysis. Government, regulators, investors, and corporate boards should create an environment that promotes the adoption of and the ease with which ESG can be integrated into organizational decision-making and processes, and that incentivize such integration. Companies that are able to integrate sustainable leadership with ESG focused investment strategies will be better positioned to perform in a global economy that is increasingly focused on sustainability, and will benefit from improved stakeholder trust, financial stability, resilience, and organizational performance.

This framework could be expanded in future studies, through the addition of further mediating factors, moderating factors, and through longitudinal studies and cross-country comparisons of sustainability governance practices. These studies would help to build the knowledge base regarding how sustainable leadership creates value for the organization and society in the long term.

**Declaration**: The author used SmartPLS for data results, Grammarly, and Paperpal (an AI-assisted language editing tool), to improve the manuscript's clarity and readability. No content, data, or analyses were generated using this tool. The responsibility for content and conclusions remains with the author.

**Conflict of interest:** The authors in this manuscript do not have any conflict of interest and all respective authors have equal contribution.

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