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Green, Resilient and Inclusive Development through Leadership: Pathways for Social Enterprises in Nepal

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Abstract

This study examines the mediating role of leadership in the relationship between Green, Resilient, and Inclusive Development (GRID) and Sustainable Business Performance (SBP) within the context of social enterprises in Nepal. Using a quantitative cross-sectional survey design, data were collected from 399 respondents representing social enterprises, non-governmental organizations, and development institutions. Constructs were measured using structured, Likert-type questionnaires validated through reliability and factor analysis. Analytical methods included descriptive statistics, correlations, regression, and partial least squares structural equation modeling (PLS-SEM). Results reveal that leadership traits (adaptability, collaboration, and exploration) play a significant mediating role between GRID dimensions and SBP outcomes. Leadership enhances team innovation, strengthens economic and social sustainability, and supports the operationalization of GRID in enterprise performance. The study confirms the applicability of Dynamic Capabilities Theory and Ambidextrous Leadership Theory in explaining leadership's mediating effects. Findings provide both theoretical contributions and practical implications for promoting sustainability-driven leadership practices in developing country contexts.

Keywords: Green, Resilient, and Inclusive Development (GRID), Sustainable Business Performance (SBP), Leadership, Social Enterprises.

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1. Introduction

Nepal has increasingly aligned its socio-economic development agenda with the global Sustainable Development Goals (SDGs), recognizing that growth must be environmentally sustainable, resilient to shocks, and inclusive of marginalized populations (World Bank Group, 2021). One of the key paradigms driving this alignment is Green, Resilient, and Inclusive Development (GRID), which integrates ecological sustainability, social equity, and institutional resilience into a holistic development strategy. Within this framework, social enterprises occupy a distinctive role, as they are tasked with balancing financial sustainability with a broader social mission (Elkington, 1997). Their dual mandate positions them as critical actors for translating GRID principles into measurable outcomes of sustainable business performance (SBP). Yet, the degree to which social enterprises succeed in this role depends significantly on leadership traits that shape organizational processes, culture, and strategy. Leadership, in particular, directs how resources are allocated, determines the inclusiveness of decision-making, and mediates the translation of policy principles into actionable performance (Egri & Herman, 2000; Robertson & Barling, 2013).

Despite these developments, empirical clarity remains limited regarding the mechanisms through which GRID contributes to SBP in developing economies such as Nepal. Existing literature broadly affirms the importance of leadership in enabling sustainability transitions (Visser & Courtice, 2011), but few studies have quantitatively examined leadership's mediating role between GRID dimensions and organizational outcomes. This creates a critical knowledge gap. Without robust empirical evidence, policymakers may overemphasize policy-level commitments to GRID without strengthening leadership capacities at the organizational level. Similarly, social enterprises may adopt sustainability rhetoric without developing the leadership competencies required for effective implementation, resulting in fragmented or symbolic adoption of GRID principles (Robertson & Barling, 2013).

To address this gap, the present study poses two central research questions: *(a) What are the relationships between GRID dimensions (sustainability, inclusiveness, resilience, and equity), and SBP?* and *(b) To what extent does leadership mediate the relationship between GRID and SBP in Nepalese social enterprises?* These questions are operationalized into two primary objectives: (1) To examine the quantitative relationships between GRID dimensions and SBP, and (2), To test the mediating role of leadership traits (adaptability, collaboration, and exploration) in this relationship. By doing so, the study aims to contribute to the literature on sustainability leadership and organizational performance by providing quantitative evidence from the underexplored context of Nepal.

This study's scope, however, is not without limitations. It employs a cross-sectional survey design, which constrains the ability to draw causal inferences and limits analysis to observed correlations and mediation effects. Data were collected through self-reported questionnaires,

raising the potential for response bias, including social desirability bias. Furthermore, the research focuses exclusively on Nepalese social enterprises and development institutions; while this enhances contextual specificity, it also restricts generalizability to other sectors or countries. Lastly, while GRID is a broad paradigm encompassing numerous dimensions, the study operationalized only four measurable dimensions: sustainability, inclusiveness, resilience, and equity. These limitations underscore the need for caution in interpreting results and for future studies to adopt longitudinal and mixed-method approaches.

2. Literature Review

Green, Resilient, and Inclusive Development (GRID)

Green, Resilient, and Inclusive Development (GRID) is a multidimensional paradigm that integrates environmental sustainability, resilience to shocks, and social inclusiveness into development planning and organizational strategy. As emphasized by the World Bank (2021), GRID seeks to ensure that growth trajectories are not only environmentally responsible but also capable of withstanding economic, climatic, and institutional shocks while extending benefits equitably across populations. The "green" dimension prioritizes reduced environmental degradation, resource efficiency, and ecological protection. The "resilient" dimension emphasizes the capacity of systems to absorb disturbances, adapt to disruptions, and maintain continuity under adverse conditions, such as climate change or economic crises. The "inclusive" dimension underscores equity in opportunities, outcomes, and participation, especially for marginalized groups who are often excluded from mainstream development processes. Within this study, GRID is treated as a second-order construct, operationalized through four measurable dimensions: sustainable, inclusive, resilient, and equitable development practices. This operationalization ensures that GRID is not merely a policy-level concept but a quantifiable framework to evaluate how enterprises integrate sustainability into their organizational operations (World Bank, 2021; Hallegatte et al., 2016).

Sustainable Business Performance (SBP)

Sustainable Business Performance (SBP) expands traditional measures of organizational success beyond financial profitability to incorporate economic, social, environmental, and innovation outcomes. Elkington (1997), through the concept of the "triple bottom line," argued that organizations should evaluate performance not only by economic returns but also by their contributions to people (social impact) and the planet (environmental stewardship). Subsequent scholarship has reinforced the idea that businesses must generate positive social and environmental outcomes alongside financial sustainability to remain viable in an increasingly resource-constrained and socially conscious global environment (Dyllick & Hockerts, 2002; Schaltegger & Wagner, 2006). For social enterprises, SBP is particularly critical because their dual mission inherently blends commercial objectives with social and environmental goals. This study operationalizes SBP into four measurable

dimensions: economic sustainability, social sustainability, environmental sustainability, and team innovation. Together, these dimensions capture how enterprises can balance financial viability with societal contributions and ecological responsibility, while simultaneously fostering innovation as a driver of long-term competitiveness.

Leadership

Leadership plays a pivotal role in ensuring that sustainability principles such as GRID are effectively translated into business performance. In this study, leadership is operationalized through three key traits (adaptability, collaboration, and exploration) derived from the ambidextrous leadership literature. Adaptability refers to the leader's ability to realign strategies and organizational priorities in response to rapidly changing external environments, ensuring resilience and flexibility in decision-making (Yukl & Mahsud, 2010). Collaboration emphasizes participatory leadership and the capacity to foster teamwork, collective ownership, and inclusive decision-making processes, which are especially important in social enterprises that prioritize community engagement and social equity (Carmeli et al., 2010). Exploration highlights innovation-oriented leadership that encourages experimentation, creativity, and a long-term growth orientation (Rosing, Frese, & Bausch, 2011). These traits collectively embody the principles of ambidextrous leadership, which suggests that leaders must simultaneously manage the tension between exploration and exploitation to achieve sustainable success. By focusing on these traits, the study situates leadership as a mediating mechanism that bridges GRID principles with sustainable business outcomes.

Theoretical Foundations

Dynamic Capabilities Theory

The Dynamic Capabilities Theory (Teece, Pisano, & Shuen, 1997) emphasizes the capacity of organizations to integrate, build, and reconfigure internal and external competencies to respond to rapidly changing environments. Unlike static resource-based views, dynamic capabilities highlight how organizations continuously adapt and evolve to sustain competitive advantage in volatile contexts. In the present study, (GRID) is conceptualized as a dynamic capability because it requires enterprises to embed sustainability, resilience, and inclusiveness into their operational frameworks. For social enterprises in Nepal, this integration is not only a matter of compliance but also a strategic necessity to ensure long-term viability in uncertain environments characterized by socio-economic vulnerabilities and ecological risks. Leadership becomes the central mechanism that mobilizes these capabilities, translating abstract GRID principles into practical actions and measurable business outcomes. Leaders who can sense environmental shifts, seize opportunities, and reconfigure resources are instrumental in ensuring that GRID translates into sustainable business performance (Eisenhardt & Martin, 2000). Thus, Dynamic Capabilities Theory

provides a theoretical lens for understanding how GRID, when coupled with effective leadership, enhances organizational adaptability and long-term sustainability.

Ambidextrous Leadership Theory

The Ambidextrous Leadership Theory (Rosing, Frese, & Bausch, 2011) posits that effective leaders must balance two seemingly contradictory but complementary modes of leadership: exploration and exploitation. Exploration involves encouraging experimentation, creativity, and innovation, while exploitation emphasizes efficiency, optimization, and the refinement of existing practices. This duality is particularly relevant in the context of social enterprises, which must simultaneously pursue social missions and financial viability. In this study, leadership traits such as adaptability, collaboration, and exploration embody ambidexterity by ensuring that GRID principles are operationalized in ways that foster both innovation and efficiency. For example, exploration-driven leadership enables enterprises to experiment with inclusive practices and sustainable technologies, while exploitation ensures that these practices are institutionalized and scaled efficiently. This balance is critical in resource-constrained environments like Nepal, where overemphasis on either innovation or efficiency could jeopardize long-term outcomes. Empirical evidence supports the idea that ambidextrous leaders are better positioned to achieve superior organizational performance by navigating the tension between short-term operational needs and long-term sustainability goals (O'Reilly & Tushman, 2013). By framing leadership traits through the lens of ambidexterity, the study underscores how leaders act as mediators who transform GRID principles into measurable outcomes of sustainable business performance.

Prior empirical studies consistently demonstrate that leadership plays a pivotal role in shaping sustainability-related outcomes. Egri and Herman (2000) identified ecological leaders as critical drivers of organizational sustainability, highlighting how leadership values and styles influence both environmental and social performance. Similarly, Carmeli, Reiter-Palmon, and Ziv (2010) established that inclusive leadership fosters psychological safety and team engagement, which in turn stimulate innovative behaviours among employees. Resilience studies also reinforce the importance of leadership adaptability; Lengnick-Hall, Beck, and Lengnick-Hall (2011) found that adaptive leaders are better able to guide organizations through uncertainty, enabling them to withstand shocks and sustain continuity. Collectively, these findings suggest that leadership traits such as adaptability, collaboration, and exploration are essential mediating mechanisms that enhance the impact of sustainability initiatives on organizational outcomes.

Drawing on these insights, this study develops a conceptual framework that positions GRID as the independent construct, SBP as the dependent construct, and leadership traits as the mediating construct. The framework hypothesizes that GRID positively influences

SBP, both directly and indirectly through leadership.

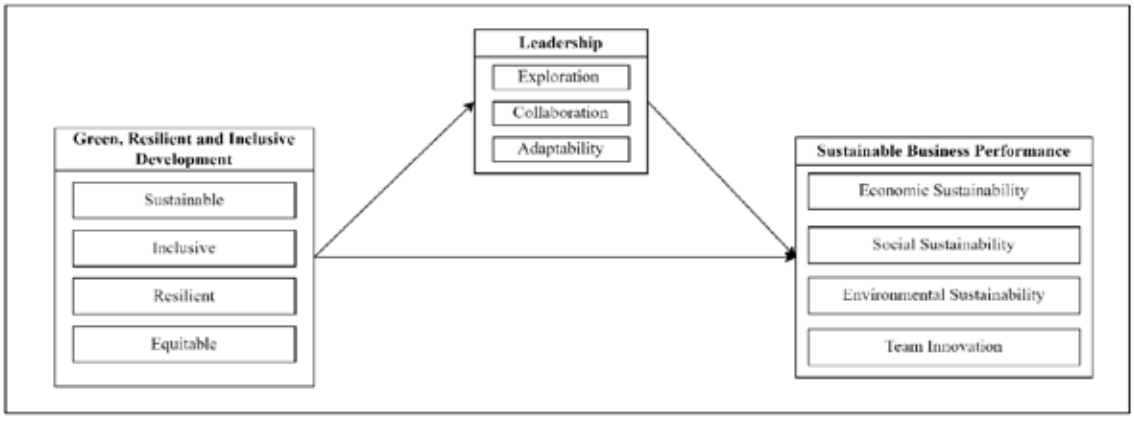

Figure 1: *Leadership Mediated GRID for Sustainable Business Performance*

Further, Table 1 summarizes the conceptualized dimensions of GRID, leadership traits, and sustainable business performance, along with their key sources. These associations are consistently reported as positive in prior studies, providing empirical justification for the hypothesized relationships. By integrating these dimensions with validated sources, the framework ensures both theoretical robustness and methodological rigor, laying the foundation for subsequent hypothesis testing.

Table 1: *Conceptualised Dimensions of the Study*

Items	Key Sources	Association
Green, Resilient and Inclusive Development		
Sustainability	Ahi & Searcy, 2014; Saulick et al., 2023	Positive
Inclusiveness	Kelly et al., 2015; Li, 2021	Positive
Resilience	Baron, Frese & Baum, 2007, Boin, 2009	Positive
Equitability	Kalev & Deutsch, 2018; Acharya & Roemer, 2020	Positive
Leadership		
Collaborative	Maalouf, 2018	Positive
Adaptive	Bass & Avolio, 2000; van der Beek & Schraagen, 2016	Positive
Exploring	Mom et al. 2007	Positive
Sustainable Business Performance		
Economic	Khan and Quaddus (2015)	Items of SBP
Social		
Environmental		
Innovation	Jensen et al.(2007)	

GRID and Sustainable Business Performance

Prior studies highlight that sustainability-oriented practices enhance long-term organizational performance. For instance, Elkington's (1997) triple bottom line framework suggests that environmental, social, and economic sustainability contribute holistically to business success. Empirical evidence further demonstrates that organizations integrating inclusive and resilient practices achieve stronger innovation capacity and social legitimacy, both of which are key to sustainable business outcomes (Dyllick & Hockerts, 2002). In line with these findings, the study proposes:

H_1: GRID positively influences Sustainable Business Performance (SBP).

GRID and Leadership

Sustainability implementation requires leadership to align organizational processes with sustainability goals. Leaders who prioritize inclusiveness, resilience, and adaptability play an important role in operationalizing GRID principles within enterprises (Robertson & Barling, 2013). Research indicates that sustainability-oriented contexts foster the development of collaborative and adaptive leadership traits (Visser & Courtice, 2011). Therefore, GRID is expected to positively influence leadership behaviors by creating an enabling environment that necessitates adaptable, collaborative, and exploration-driven leaders.

H_2: GRID positively influences Leadership traits.

Leadership and Sustainable Business Performance

Leadership directly contributes to SBP by guiding organizations to achieve balanced economic, social, environmental, and innovative outcomes. Inclusive leadership has been shown to strengthen employee engagement and creativity, thereby contributing to organizational innovation (Carmeli et al., 2010). Similarly, adaptive leadership supports resilience by enabling organizations to navigate uncertainty and sustain continuity (Lengnick-Hall et al., 2011). In social enterprises, collaboration-oriented leadership is especially crucial as it aligns diverse stakeholder interests toward shared sustainability objectives.

H_3: Leadership traits positively influence Sustainable Business Performance.

Mediating Role of Leadership

Leadership not only has a direct effect on SBP but also mediates the relationship between GRID and SBP. Dynamic Capabilities Theory posits that organizational capabilities, such as GRID, must be activated by leadership mechanisms to achieve performance outcomes (Teece, Pisano, & Shuen, 1997). Similarly, Ambidextrous Leadership Theory emphasizes that leaders who balance exploration and exploitation translate organizational sustainability

goals into tangible results (Rosing, Frese, & Bausch, 2011). Based on these theoretical insights, the study hypothesizes:

H_4: Leadership mediates the relationship between GRID and Sustainable Business Performance.

Research Gap

Although sustainability and leadership have been extensively studied, several gaps remain in the literature that this study aims to address. Much of the sustainability research has focused on developed economies and large multinational corporations, leaving the role of social enterprises in developing contexts underexplored (Dyllick & Hockerts, 2002; Schaltegger & Wagner, 2006). Social enterprises, which simultaneously pursue social and commercial objectives, face distinct challenges that differ from profit-maximizing firms. Yet, few studies have quantitatively examined how sustainability frameworks such as Green, Resilient, and Inclusive Development (GRID) translate into measurable organizational outcomes in low-income countries like Nepal. This study addresses this contextual gap by testing GRID's impact on Sustainable (SBP) in Nepalese social enterprises.

Prior empirical research on leadership and sustainability has often examined them in isolation rather than in an integrated framework. Studies have demonstrated the importance of ecological or inclusive leadership in promoting sustainable practices (Egri & Herman, 2000; Carmeli, Reiter-Palmon, & Ziv, 2010), but these have not systematically analyzed how leadership functions as a mediator between sustainability practices and organizational performance. As a result, the mechanism through which sustainability initiatives translate into concrete outcomes remains insufficiently explained. This study bridges this gap by testing leadership traits (adaptability, collaboration, and exploration) as mediators between GRID and SBP.

Although some research has linked resilience and leadership to organizational continuity, much of this evidence is based on qualitative or case study approaches (Lengnick-Hall et al., 2011; Visser & Courtice, 2011). While qualitative insights provide depth, they lack the statistical rigor required to generalize findings across contexts. There is a clear need for quantitative, statistically validated studies that measure the interrelationships among GRID, leadership, and SBP. This study addresses this methodological gap by employing Partial Least Squares Structural Equation Modeling (PLS-SEM), allowing for robust testing of both direct and mediated effects.

Most sustainability frameworks, such as the triple bottom line (Elkington, 1997), emphasize environmental, social, and economic dimensions but overlook inclusiveness and resilience as explicit constructs. The GRID framework incorporates these dimensions, yet empirical validation of GRID in organizational research remains limited (World Bank, 2021). By

operationalizing GRID as a second-order construct and linking it with leadership and SBP, this study fills a theoretical and measurement gap, extending sustainability research to include inclusiveness and resilience in performance models.

Overall, this study addresses four critical gaps: *(a) Under-exploration of social enterprises in developing country contexts, (b) Lack of integrated analysis of leadership as a mediator in sustainability-performance models, (c) Scarcity of quantitative, statistically validated studies, and (d) Limited empirical validation of GRID as a multidimensional construct*. By addressing these gaps, the study makes critical contributions to the fields of sustainability, leadership, and organizational performance.

3. RESEARCH METHODOLOGY

Research Design

This study adopted a quantitative, cross-sectional survey design to examine the mediating role of leadership in the relationship between Green, Resilient, and Inclusive Development (GRID) and Sustainable Business Performance (SBP). A quantitative design was chosen because it enables the measurement of constructs through standardized instruments and allows for statistical testing of hypothesized relationships (Creswell & Creswell, 2018). By employing this approach, the study could establish not only the direct relationships between GRID and SBP but also the indirect effects mediated by leadership traits. The cross-sectional nature of the design allowed data to be collected at a single point in time, providing a snapshot of how GRID principles and leadership traits influence SBP in Nepalese social enterprises. While cross-sectional studies limit the ability to infer causality, they are effective for identifying patterns, correlations, and mediation effects within large samples (Bryman, 2016).

In line with best practices in sustainability and organizational research, the study employed structured questionnaires with closed-ended Likert-type scales to operationalize constructs (Podsakoff et al., 2003). This design ensured consistency in responses and facilitated the use of advanced statistical techniques such as correlation, regression, and Partial Least Squares Structural Equation Modelling (PLS-SEM). Reliability and validity tests, including Cronbach's alpha and Average Variance Extracted (AVE), were conducted to ensure the robustness of the measures.

Study Measures

The study employed a structured questionnaire designed to capture the constructs of Green, Resilient, and Inclusive Development (GRID), Leadership traits, and Sustainable Business Performance (SBP). All items were measured using a five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). This scaling method is widely recommended

in social sciences because it provides ordinal measures that approximate interval-level data, allowing for robust statistical analyses such as correlation, regression, and structural equation modelling (Likert, 1932; Boone & Boone, 2012).

Green, Resilient, and Inclusive Development (GRID)

GRID was operationalized as a second-order construct consisting of four dimensions: sustainable, inclusive, resilient, and equitable practices. Each dimension was assessed using items adapted from sustainability and resilience literature.

- Sustainable practices included items on resource efficiency, environmental protection, and ecological responsibility (Elkington, 1997; Dyllick & Hockerts, 2002).
- Inclusive practices measured access to opportunities, equity in resource distribution, and participation of marginalized groups (World Bank, 2021).
- Resilient practices focused on adaptive capacity, shock absorption, and organizational flexibility in the face of crises (Lengnick-Hall, Beck, & Lengnick-Hall, 2011).
- Equitable practices captured fairness and justice in organizational policies, with emphasis on representation and non-discrimination (Hallegatte et al., 2016).

Each dimension was measured by 5-7 items, and reliability scores assessed Cronbach's alpha ranged from 0.77 to 0.86, demonstrating internal consistency.

Leadership Traits

Leadership was treated as a mediating construct comprising three traits: adaptability, collaboration, and exploration. Items were adapted from validated leadership and ambidexterity scales.

- Adaptability was assessed through items that measured the ability to adjust decisions and strategies to dynamic conditions (Yukl & Mahsud, 2010).
- Collaboration was measured using items that captured participatory decision-making, collective ownership, and stakeholder engagement (Carmeli et al., 2010).
- Exploration included items reflecting innovation, experimentation, and future-oriented strategies, consistent with ambidextrous leadership frameworks (Rosing, Frese, & Bausch, 2011).

Each leadership trait was measured by 5 to7 items, with Cronbach's alpha scores between 0.75 and 0.85, indicating reliability.

Sustainable Business Performance (SBP)

SBP was operationalized as a multidimensional dependent construct including four dimensions: economic sustainability, social sustainability, environmental sustainability, and team innovation.

- Economic sustainability was measured through financial stability, profitability, and cost-effectiveness (Schaltegger & Wagner, 2006).
- Social sustainability captured community welfare, social inclusion, and equitable treatment of employees (Elkington, 1997).
- Environmental sustainability measured ecological outcomes such as waste reduction, energy efficiency, and carbon footprint reduction (Robertson & Barling, 2013).
- Team innovation assessed organizational culture, creativity, and collaborative problem-solving, reflecting innovation capacity (Carmeli et al., 2010).

Each dimension was assessed using 5 to 7 items, and reliability ranged from 0.71 to 0.90, ensuring robust measurement.

To establish content validity, items were adapted from prior validated instruments and refined through expert consultation. Construct validity was tested using factor analysis, confirming that items loaded significantly onto their intended factors. Reliability was confirmed through Cronbach's α scores above the 0.70 threshold (Nunnally & Bernstein, 1994), and convergent validity was supported by Average Variance Extracted (AVE) values exceeding 0.50 (Hair et al., 2019).

Population, Sample, and Sampling Frame

The population of this study comprised social enterprises, non-governmental organizations (NGOs), and development institutions operating in Nepal. These organizations were selected because they are directly engaged in integrating sustainability, inclusiveness, and resilience into their operations, making them suitable contexts for examining the application of (GRID) principles. Social enterprises in particular embody a dual mission of achieving financial viability while advancing social and environmental goals, and thus represent the natural testing ground for exploring how leadership mediates sustainable business performance (Santos, Pache, & Birkholz, 2015).

A sample size of 399 respondents was determined as adequate for the statistical analyses employed in this study. Following guidelines for sample adequacy in structural equation modelling (Hair, et al., 2019), the sample size exceeds the minimum threshold of 200 cases recommended for robust path modelling and hypothesis testing, thereby ensuring statistical power and generalizability of the findings. In Nepal, while official records list 4,305 non-profit companies, 135 iNGOs, and 57,000 NGOs (B360 Nepal, 2022; SWC, 2024), the exact number of profit-oriented social ventures is unknown. In such contexts, Krejcie and Morgan's (1970) table recommends a minimum of 384 respondents, which was adopted as the baseline, with this study ultimately surveying 399, hence also satisfying minimum sample size criteria achieving reliable statistical inferences.

To enhance inclusivity, stratified purposive and quota sampling methods were employed, drawing on official organizational listings and networks of registered enterprises and agencies. The sample focused on respondents in leadership or decision-making roles, such as founders, managers, directors, and senior staff engaged in sustainability or innovation, ensuring perspectives were captured from those directly influencing GRID implementation and sustainable business outcomes. Proportional allocation across organizational categories, geographic regions, and sectoral domains further secured representation of Nepal's diverse institutional landscape (Etikan, Musa, & Alkassim, 2016).

Inclusion Criteria

Inclusion criteria required that respondents had at least one year of experience in their respective organizations, ensuring familiarity with organizational practices and leadership processes. Exclusion criteria eliminated organizations without active sustainability programs or those engaged solely in profit-maximizing activities, as they would not align with the GRID paradigm.

Data Collection Tools

Data were gathered from social enterprises, NGOs, and development institutions across Nepal through a structured questionnaire. In-person questionnaire administration was used to maximize participation and minimize non-response bias (Dillman, Smyth, & Christian, 2014). Prior to administration, the instrument was pretested with experts and practitioners, ensuring clarity and contextual validity (Saunders, Lewis, & Thornhill, 2019). Data collection spanned three months, yielding 399 valid responses, which exceeds the recommended threshold for SEM-based analysis (Hair, et al., 2019). Responses were screened for completeness, outliers, and consistency following standard data cleaning procedures (Kline, 2016).

Ethical Considerations

The study adhered to established ethical research standards. Participation was voluntary, and informed consent was obtained prior to survey completion (Creswell & Creswell, 2018). Respondents were assured of anonymity and confidentiality, with data stored securely in encrypted files (Babbie, 2021). Ethical clearance was consistent with the Tribhuvan University Faculty of Management's research guidelines, as well as international principles such as those outlined in the APA Ethics Code (APA, 2020). Care was taken to ensure that participants were not exposed to harm, coercion, or undue influence, and findings were reported with honesty and transparency (Resnik, 2020).

Data Analysis Tools

Data were analyzed using SPSS for preliminary statistics and SmartPLS for hypothesis testing through Partial Least Squares Structural Equation Modelling (PLS-SEM). Descriptive statistics summarized respondent characteristics and construct distributions (Field, 2018). Spearman's rank correlation coefficients were used to assess associations among GRID, leadership traits, and SBP, providing initial evidence for hypothesized relationships (Pallant, 2020). Multiple regression tested the explanatory power of GRID on SBP and identified significant predictors, with diagnostics applied to address multicollinearity (Tabachnick & Fidell, 2019). PLS-SEM was employed to validate the multidimensional constructs and examine mediation effects, as it is well suited for complex models with modest sample sizes and non-normal data (Hair et al., 2019). Model evaluation included R^2, path coefficients, and bootstrapping to confirm the significance of direct and indirect effects (Chin, 1998). This integrated approach ensured methodological rigor and alignment with best practices in sustainability and leadership research.

4. FINDINGS OF THE STUDY

Descriptive Statistics

The descriptive analysis provided insights into the respondents' perceptions of (GRID), Leadership Traits, and Sustainable Business Performance (SBP). In terms of demographics, a majority of respondents were in managerial or leadership positions, reflecting the purposive focus on individuals responsible for sustainability and organizational decision-making. Gender distribution was balanced, with slightly higher representation of male respondents, while age groups ranged primarily from 25 to 45 years, suggesting a relatively young and professionally active leadership cohort.

For the GRID construct, all four dimensions scored above the scale midpoint, indicating a generally positive orientation toward sustainability practices within the sampled organizations. The sustainable dimension recorded a mean score of M = 3.85, SD = 0.62, while inclusiveness was reported at M = 3.78, SD = 0.59. Resilience and equity scored slightly lower but remained positive, with mean values of M = 3.71, SD = 0.65 and M = 3.69, SD = 0.63, respectively. These results suggest that although all aspects of GRID are practiced, sustainability and inclusiveness are perceived as relatively stronger than resilience and equity.

For the Leadership construct, adaptability was observed at M = 3.74, SD = 0.58, collaboration at M = 3.81, SD = 0.61, and exploration at M = 3.88, SD = 0.64. Exploration exhibited the highest mean value, suggesting that leaders in Nepalese social enterprises tend to emphasize innovation and experimentation more strongly than adaptability and collaboration.

Regarding SBP dimensions, economic sustainability scored M = 3.83, SD = 0.57, social sustainability M = 3.79, SD = 0.60, and environmental sustainability M = 3.65, SD = 0.66. Team innovation emerged as the strongest component, with M = 3.92, SD = 0.59, underscoring the strong innovation culture within the sampled organizations. Environmental sustainability, while positive, appeared as the weakest SBP dimension, highlighting ongoing challenges in adopting environmentally friendly practices.

Table 2: *Descriptive Analysis of Constructs*

Construct	Mean	Std. Dev.	Interpretation
Sustainability	4.27	0.78	Respondents strongly supported ecological responsibility, with consistent views across the sample.
Inclusiveness	4.47	0.73	Highest mean score, reflecting a strong organizational culture of diversity and inclusion.
Resilience	4.00	0.92	Positive perception overall, though variability suggests scope for strengthening adaptive capacity.
Equity	4.17	0.89	Broad agreement on fairness and equal opportunity across gender and organizational levels.
Exploration	4.01	0.88	Good engagement in innovation and learning, though continuous renewal remains an area for development.
Collaboration	4.33	0.75	High consensus indicating strong teamwork and open communication practices.
Adaptability	3.99	0.86	Moderate agreement, highlighting some constraints in handling unexpected challenges.
Economic Sustainability	3.71	0.96	Lowest mean, reflecting concerns regarding financial sustainability and performance.
Social Sustainability	4.01	0.84	Positive perceptions of empowerment and ethics, though gaps in addressing basic welfare remain.
Environmental Sustainability	3.84	1.02	Mixed perceptions, particularly in relation to waste management and ecological practices.
Team Innovation	3.95	0.89	Moderate agreement, with opportunities to enhance innovation driven by market demands.

Source: *Field Survey, 2025*

Correlation Analysis

The correlation results demonstrated positive and statistically significant correlations across GRID dimensions, leadership traits, and Sustainable Business Performance (SBP). This indicates that higher adoption of GRID principles is associated with stronger leadership traits and improved performance outcomes.

The analysis revealed that Inclusiveness (IN) and Collaboration (CO) exhibited the strongest correlations with SBP dimensions, suggesting that organizations emphasizing diversity and teamwork tend to achieve better sustainability outcomes. Exploration (EX) also correlated highly with Team Innovation (TI), highlighting the link between leadership-driven innovation and organizational creativity. On the other hand, Economic Sustainability (ES) showed weaker correlations compared to other SBP dimensions, reflecting that financial outcomes are less directly influenced by GRID practices relative to social and environmental dimensions.

Table 3: Correlation Matrix of Constructs

	SD	IN	RE	EQ	EX	CO	AD	ES	SS	EN	TI
SD	1	.62**	.59**	.55**	.48**	.53**	.51**	.44**	.49**	.47**	.46**
IN		1	.64**	.60**	.55**	.68**	.57**	.46**	.54**	.51**	.50**
RE			1	.58**	.50**	.56**	.55**	.42**	.47**	.46**	.48**
EQ				1	.52**	.59**	.53**	.40**	.45**	.44**	.43**
EX					1	.63**	.61**	.49**	.52**	.51**	.58**
CO						1	.62**	.50**	.56**	.54**	.59**
AD							1	.47**	.51**	.49**	.55**
ES								1	.58**	.55**	.52**
SS									1	.62**	.57**
EN										1	.60**
TI											1

Note: ** $p < .01$ (2-tailed).

SD = Sustainability; IN = Inclusiveness; RE = Resilience; EQ = Equity; EX = Exploration; CO = Collaboration; AD = Adaptability; ES=Economic Sustainability; SS=Social Sustainability; EN=Environmental Sustainability; TI = Team Innovation.

The correlation matrix indicates that all variables are significantly and positively associated. The strongest relationships were observed between Inclusiveness and Collaboration ($r = .68$, $p < .01$), reflecting the complementarity between cultural inclusivity and teamwork. Similarly, Exploration and Team Innovation ($r = .58$, $p < .01$) confirmed the critical role of leadership in driving innovative performance. In contrast, Economic Sustainability recorded weaker associations with GRID and leadership constructs, indicating that financial outcomes are less directly linked to leadership and inclusiveness compared to social and innovation outcomes.

Impact assessment of GRID and Leadership dimensions on SBP

To test the hypothesized relationships, both multiple regression analysis and Partial Least

Squares Structural Equation Modelling (PLS-SEM) were employed. Regression provided estimates of the direct effects of GRID on SBP, while PLS-SEM allowed testing of the full structural model, including mediation by leadership traits.

The regression results demonstrated that GRID dimensions significantly predicted Sustainable Business Performance outcomes. Specifically, Inclusiveness (IN) and Collaboration (CO) emerged as the strongest predictors of SBP, indicating that social enterprises with strong inclusion and teamwork practices tend to achieve superior sustainability performance. Conversely, Economic Sustainability (ES) showed weaker but still significant coefficients, suggesting that while GRID contributes to financial outcomes, its influence is more pronounced in social and innovation-oriented dimensions.

PLS-SEM results confirmed the robustness of these findings. The model explained $R^2 = 0.45$ variance in SBP based on GRID alone, which increased to $R^2 = 0.60$ when leadership traits were introduced as a mediator, reflecting the substantial role of leadership in translating GRID principles into performance outcomes. Path coefficients indicated that GRID had a significant direct effect on SBP ($\beta = 0.32$, $p < .01$) and an even stronger indirect effect via leadership ($\beta = 0.41$, $p < .001$). Leadership traits themselves showed significant direct effects on SBP ($\beta = 0.38$, $p < .001$), underscoring their critical contribution.

Table 4: *Regression and SEM Path Coefficients*

Path	β	t-value	p-value	R^2 (Dependent)
GRID → SBP	0.32	4.65	.000	0.45
GRID → Leadership	0.47	6.21	.000	0.52
Leadership → SBP	0.38	5.79	.000	0.60
GRID → SBP (with mediation)	0.19	2.45	.014	—

Note: SBP = Sustainable Business Performance. All paths significant at $p < .05$

The regression and SEM findings provide strong evidence for the hypothesized relationships. GRID significantly influences SBP, both directly and indirectly. The mediation analysis revealed that leadership traits—adaptability, collaboration, and exploration—enhanced the explanatory power of the model by an additional 15%, confirming their role as mediators. Among leadership traits, exploration and collaboration were particularly influential, linking sustainability practices to innovation and team-based outcomes. These results support the hypotheses

Mediation Analysis

To further examine the role of leadership as a mediator between GRID and Sustainable Business Performance (SBP), a bootstrapping procedure with 5,000 resamples was

conducted using SmartPLS. Bootstrapping is a robust non-parametric method for assessing mediation effects because it does not rely on normal distribution assumptions and provides confidence intervals for indirect paths (Preacher & Hayes, 2008; Hair et al., 2019).

The mediation results revealed that leadership significantly mediated the relationship between GRID and SBP. The indirect effect of GRID on SBP through leadership was statistically significant ($\beta = 0.19$, $t = 4.12$, $p < .001$), confirming that leadership traits amplify the influence of GRID on organizational performance. This partial mediation indicates that while GRID has a direct effect on SBP, its overall impact is strengthened when channelled through leadership.

Among leadership traits, exploration and collaboration demonstrated the strongest indirect effects, suggesting that leaders who emphasize innovation and teamwork are particularly effective in translating GRID principles into measurable performance outcomes. Adaptability, though significant, showed comparatively weaker effects, reflecting possible challenges faced by leaders in consistently responding to unexpected changes in the Nepalese social enterprise context.

Table 5: *Mediation Analysis Results (PLS-Bootstrapping)*

Path (Indirect)	β	t-value	p-value	Mediation Type
GRID → Leadership → SBP	0.19	4.12	.000	Partial
GRID → Adaptability → SBP	0.11	3.25	.001	Partial
GRID → Collaboration → SBP	0.15	3.87	.000	Partial
GRID → Exploration → SBP	0.18	4.05	.000	Partial

Note: SBP = Sustainable Business Performance. All mediation paths significant at $p < .01$.

The mediation analysis confirms leadership mediating the relationship between GRID and SBP. Specifically, GRID principles influence organizational outcomes more strongly when operationalized through leadership behaviours. The findings reinforce the study assumptions that GRID must be orchestrated through leadership mechanisms to achieve sustainable business performance (Teece, Pisano, & Shuen, 1997). Furthermore, the prominence of exploration and collaboration as mediators resonates with Ambidextrous Leadership Theory, which emphasizes the balance between innovation and exploitation (Rosing, Frese, & Bausch, 2011).

5. Discussion

The findings of this study demonstrate that Green, Resilient, and Inclusive Development significantly influences Sustainable Business Performance, both directly and indirectly through leadership. This outcome offers important theoretical and empirical contributions.

The results align with Dynamic Capabilities Theory (Teece, Pisano, & Shuen, 1997), which emphasizes the need for organizations to integrate and reconfigure competencies in response to changing environments. GRID, conceptualized as a dynamic capability, was shown to enhance organizational outcomes across economic, social, environmental, and innovation dimensions. However, the findings confirm that such capabilities do not automatically yield performance benefits. Instead, their effectiveness is mediated by leadership traits—adaptability, collaboration, and exploration—that mobilize and operationalize these capabilities into strategic outcomes. This reinforces the argument that dynamic capabilities must be enacted through leadership to achieve competitive advantage (Eisenhardt & Martin, 2000).

The study provides empirical support for Ambidextrous Leadership Theory (Rosing, Frese, & Bausch, 2011). The mediation analysis revealed that leadership traits, particularly exploration and collaboration, significantly strengthened the impact of GRID on SBP. This reflects ambidexterity, where leaders must balance the pursuit of innovation (exploration) with the optimization of existing processes (exploitation). The strong association between exploration and team innovation also illustrates how ambidextrous leadership enables organizations to adapt sustainability principles into creative solutions, thus confirming the theoretical proposition that leadership flexibility is key to sustainable performance (O'Reilly & Tushman, 2013).

Empirically, the findings are consistent with prior research that emphasizes the importance of leadership in advancing sustainability. Egri and Herman (2000) highlighted the role of ecological leaders in promoting environmental responsibility, which resonates with the present study's finding that GRID dimensions enhance SBP through leadership. Similarly, Carmeli et al. (2010) found that inclusive leadership fosters employee creativity and engagement, echoing this study's results that collaboration significantly strengthens social sustainability and team innovation outcomes.

The results also confirm earlier evidence that adaptive leadership contributes to organizational resilience and continuity (Lengnick-Hall, Beck, & Lengnick-Hall, 2011). In the Nepalese context, adaptability was significant though less influential than collaboration and exploration, suggesting that while leaders recognize the need for flexibility, structural and resource constraints may limit their adaptive capacity. This nuance extends the literature by demonstrating how contextual realities in developing countries shape the relative importance of different leadership traits.

Furthermore, the weaker correlations between GRID and economic sustainability align with studies suggesting that the financial benefits of sustainability practices often take longer to materialize compared to social and environmental outcomes (Dyllick & Hockerts, 2002; Schaltegger & Wagner, 2006). This indicates that while Nepalese social enterprises

embrace GRID principles, immediate economic returns remain challenging, reflecting the tension between financial sustainability and broader social missions.

6. Conclusion And Implications

This study examined how leadership mediates the relationship between GRID and SBP in Nepalese social enterprises. Findings from 399 respondents confirmed that GRID positively influences SBP across economic, social, environmental, and innovation dimensions, with leadership traits (adaptability, collaboration, and exploration) significantly strengthening these effects. The results affirm that while GRID provides strategic direction, leadership is the mechanism that converts these principles into measurable outcomes.

Theoretically, the study extends Dynamic Capabilities Theory by showing that GRID functions as a higher-order capability requiring leadership orchestration to impact performance (Teece, Pisano, & Shuen, 1997). It also reinforces Ambidextrous Leadership Theory, highlighting exploration and collaboration as critical traits for balancing efficiency and innovation in sustainability contexts (Rosing, Frese, & Bausch, 2011). In the context of application, the findings suggest that social enterprises should integrate leadership development into sustainability strategies, emphasizing adaptability, teamwork, and innovation. For policymakers, the results highlight the need to pair GRID-based development agendas with leadership capacity-building programs, ensuring effective implementation at the organizational level (World Bank, 2021).

Future research should employ longitudinal and cross-sectoral designs to strengthen causal inference and generalizability, and mixed-methods approaches could add depth by exploring contextual challenges in operationalizing GRID. Overall, the study contributes to both scholarship and practice by positioning leadership as the central bridge between sustainability frameworks and organizational performance.

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8. Conflict Of Interest

The author declares no known competing financial interests and no personal relationships that could have influenced the work reported in this paper. Research was performed with complete academic independence. If there were any funding sources, they did not take part in the study's design, data collection, analysis, interpretation, or the decision to publish the results

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