Commanding Performance, Cultivating Resilience: The Bifurcated Influence of Leadership in High-Risk Indigenous Firms

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Abstract

This study investigates how and under what conditions leadership styles generate organisational resilience and performance in indigenous oil and gas firms, theorising organisational culture as the mediating mechanism and psychological safety climate as the boundary condition that determines whether leadership's cultural influence is genuinely embedded or symbolically enacted. A convergent mixed-methods design integrated PLS-SEM analysis of 350 survey responses across 12 Nigerian indigenous oil and gas firms with thematic analysis of four focus group discussions involving 33 purposively selected participants. Moderated mediation was examined at three conditional levels of psychological safety climate using bias-corrected bootstrapping. Leadership styles directly predict organisational performance but not resilience. Organisational culture fully mediates the leadership–resilience relationship and partially mediates the leadership–performance relationship, revealing an asymmetric mediation structure. Psychological safety climate significantly moderates both culture-mediated pathways, with stronger indirect effects observed under high safety conditions. Leaders in high-risk, hierarchically structured environments must recognise that compliance-oriented management sustains short-term performance while simultaneously undermining the adaptive cultural conditions resilience demands. Psychological safety is an operational priority, not a cultural aspiration. To the best of the authors' knowledge, no prior study has applied a moderated mediation framework to explore the conditional, culture-mediated pathways linking leadership styles to firm-level resilience and performance in the oil and gas sector, making this the first such investigation in Nigeria's indigenous operator context.

Keywords: leadership styles, organisational resilience, organisational culture, psychological safety climate, moderated mediation, indigenous oil and gas, Nigeria

1. Introduction

In volatile, capital-intensive sectors such as petroleum extraction, the question of what sustains organisations over time is existential. Between 2021 and 2025, Nigeria's oil and gas sector underwent fundamental structural reconfiguration. The Petroleum Industry Act 2021 restructured governance across all segments; over USD 10 billion in upstream investment arrived by mid-2024; and indigenous operators absorbed major multinational divestiture portfolios, including Seplat Energy's acquisition of ExxonMobil's onshore assets and Oando's takeover of the Nigerian Agip blocks. Contributing approximately 90 per cent of Nigeria's export earnings and nearly half of government revenues (OPEC, 2023), the sector remains the most strategically consequential in Africa's largest economy. Yet the post-PIA regulatory environment remains contested, with implementation inconsistencies persisting despite reform intent (Musa and Nwokoro, 2025; Obi, 2025). Simultaneously, global energy transition pressures and persistent oil theft continue to reshape investment patterns and suppress output recovery (IEA, 2025; S&P Global, 2025). Unlike multinational operators with global risk diversification, indigenous private firms depend more on the organisational and cultural conditions they cultivate internally (Anyigba and Lartey, 2024).

This raises a question of direct organisational relevance: what internal configurations of leadership, culture, and resilience allow indigenous firms to sustain performance within an environment characterised by weak market-supporting institutions? Effective leadership is widely recognised as a critical determinant of how organisations navigate such environments and the relationship between leadership and organisational outcomes has produced one of the most empirically saturated literatures in management science. Meta-analytic syntheses confirm that transformational leadership predicts performance, commitment, and innovation across industries and geographies (Wang et al., 2011; Judge and Piccolo, 2004; Fischer and Sitkin, 2023). Emerging studies are consequently shifting

attention to the mechanisms and boundary conditions through which leadership translates into firm-level outcomes in high-risk, institutionally constrained contexts (Iqbal et al., 2023; Madi Odeh et al., 2023; Anyigba and Lartey, 2024; Hanifah and Syamsir, 2026).

While prior studies on leadership in oil and gas organisations have begun to engage this terrain, three limitations constrain their relevance here. First, existing oil and gas leadership studies focus predominantly on employee-level outcomes rather than firm-level resilience and performance (Zuofa and Ocheing, 2017; Abudaqa et al., 2020; Olayisade and Awolusi, 2021; Adegboyega and Awolusi, 2024). Second, where firm-level outcomes have been examined, studies test only direct leadership effects, leaving the mediating role of culture and the moderating role of psychological safety climate unexamined (Naja and Ahmad, 2024; Thomas, 2020; Anyigba and Lartey, 2024). Third, the empirical base is dominated by Gulf and MENA contexts (Sharifkhani et al., 2016; Al Ali and Koutra, 2024; Zakholi, 2025), with little attention to the specific institutional features shaping Nigeria's indigenous oil and gas private sector. Finally, no existing study to the best of the researchers' knowledge has advanced a moderated mediation process model to explain the mechanisms and boundary conditions through which leadership generates firm-level resilience and performance outcomes in oil and gas contexts.

This study addresses these gaps by (1) examining the conditional process through which transformational, transactional, and democratic leadership styles influence organisational resilience and performance, (2) assessing the mediating role of organisational culture, and (3) examining psychological safety climate as the moderating boundary condition. The study makes three contributions. First, it shifts the analytical focus from employee and team outcomes, which dominate the extant oil and gas leadership literature (Olayisade and Awolusi, 2021; Adegboyega and Awolusi, 2024), to firm-level resilience and performance, a reorientation necessitated by the ownership restructuring dynamics reshaping Nigeria's sector (Musa and Nwokoro, 2025; Obi, 2025). Second, it identifies an asymmetry in mediation where culture fully mediates the leadership–resilience relationship but only partially mediates the leadership–performance relationship, revealing that resilience requires cultural embedding in ways that performance does not (Hanifah and Syamsir, 2026; Zakholi, 2025). Third, it establishes psychological safety climate as a boundary condition on the culture-mediated pathway, demonstrating that fear-based environments systematically attenuate leadership's beneficial effects (Atawarman et al., 2026; Addai et al., 2026).

The remainder of this paper proceeds as follows. Section 2 reviews the relevant theoretical and empirical literature and develops the study's hypotheses. Section 3 details the mixed-methods research design and analytical procedures. Section 4 presents the quantitative and qualitative findings and their integration. Section 5 discusses theoretical and practical implications, and Section 6 concludes with limitations and directions for future research.

2. Literature Review and Hypotheses Development

2.1 Theoretical Foundations

This study is anchored in the Full Range Leadership Model (FRLM; Bass and Avolio, 1990), with the Competing Values Framework (CVF; Cameron and Quinn, 2011) and Edmondson's (1999) psychological safety framework providing complementary grounding. These frameworks account for how leadership behaviour generates firm-level outcomes, why organisational culture mediates that process, and under what conditions the transmission chain is amplified or constrained. The FRLM conceptualises leadership along a continuum from transformational to transactional behaviour. Transformational leadership operates by elevating followers' values and performance beyond transactional exchange through idealised influence, inspirational motivation, intellectual stimulation, and individualised consideration (Bass and Avolio, 1990). Transactional leadership generates outcomes through contingent reward structures and exception-based monitoring. Meta-analytic evidence consistently confirms the FRLM's predictive validity across industries and national contexts (Judge and Piccolo, 2004; Wang et al., 2011; Fischer and Sitkin, 2023).

The CVF organises culture along two orthogonal dimensions—flexibility versus stability, and internal versus external orientation—yielding four cultural archetypes: clan (collaborative), adhocracy (innovative), market (results-driven), and hierarchy (control-focused) (Cameron and Quinn, 2011). Critically, the CVF theorises inherent tensions between competing values such that cultural features enabling one outcome may constrain another. This logic is central to the present study: the cultural orientations most conducive to performance differ from those most conducive to resilience, making culture an active determinant of which outcomes are reachable through leadership's influence.

Edmondson's (1999) psychological safety framework introduces the boundary condition that determines whether leadership-shaped culture translates into genuine organisational capability or surface compliance. Psychological safety climate operates at the collective level, emerging from consistent leadership behaviours and institutionalised practices

(Baer and Frese, 2003; Newman et al., 2017). In high-power-distance, hierarchically structured contexts, it represents a particularly consequential but empirically understudied moderator: without sufficient shared safety, the flexible and collaborative cultural orientations required for resilience cannot be activated regardless of leadership intent.

2.2 Leadership Styles and Firm-Level Outcomes

Organisational resilience relates to the capacity to anticipate disruptions, absorb shocks, and adaptively reconfigure operations to maintain core functioning (Vogus and Sutcliffe, 2007; Duchek, 2020). It has emerged as a critical firm-level capability in volatile, capital-intensive industries. Within the FRLM, transformational leadership is theorised to build resilience by cultivating adaptive cultures, fostering collective efficacy, and modelling forward-looking behaviour under uncertainty, while transactional leadership contributes through the procedural rigour and performance accountability that form the operational backbone of resilient organisations in high-reliability environments (Madi Odeh et al., 2023; Garengo and Betto, 2022). Democratic leadership strengthens resilience through participatory sensemaking and the distributed social trust that enables coordinated response under pressure (Ajani et al., 2023). Existing empirical evidence linking leadership to resilience remains largely focused on team-level outcomes in Gulf and MENA contexts, with Madi Odeh et al. (2023) and Sabbah (2024) providing the most direct evidence of transformational leadership's positive association with organisational resilience. The firm-level resilience implications for indigenous private operators in the Nigerian oil and gas sector, simultaneously managing commodity volatility, pipeline insecurity, and post-divestiture asset integration, remain largely empirically unaddressed.

Regarding organisational performance, the FRLM's predictive validity at the firm level is well established. Wang et al.'s (2011) meta-analysis confirmed significant positive effects of transformational leadership on organisational performance, a finding replicated across diverse sectoral and geographic contexts (Fischer and Sitkin, 2023). In Nigerian oil and gas specifically, Anyigba and Lartey (2024) and Thomas (2020) have examined leadership–performance relationships, though predominantly through direct effect models that leave mediating mechanisms unexamined. Thus, we hypothesise:

H1a: Leadership styles are positively associated with organisational resilience.

H1b: Leadership styles are positively associated with organisational performance.

2.3 Mediating Role of Organisational Culture

Within the CVF, organisational culture constitutes the shared values, beliefs, and behavioural norms through which collective effort is channelled and organisational capabilities cultivated or constrained (Cameron and Quinn, 2011; Schein, 2010). Leaders shape culture through the behaviours they model, the values they articulate, and the responses they institutionalise during crises. Adaptive and clan-oriented cultural configurations, associated with transformational and democratic leadership, promote change-readiness, collective learning, and relational trust that underpin anticipation, adaptation, and recovery (Duchek, 2020). Market and hierarchy configurations, associated with transactional leadership, sustain goal clarity and efficiency that drive performance outcomes.

Empirically, culture's mediating role is increasingly supported. Iqbal et al. (2023) demonstrated full mediation through quality culture, while Madi Odeh et al. (2023) found adaptive culture partially mediates transformational leadership's effect on resilience. In the Nigerian context, Ikebudu (2025) found that leadership fosters innovation culture in indigenous oil and gas firms, and Hanifah and Syamsir (2026) confirmed that transformational leadership shapes culture, which in turn mediates performance outcomes. Hartnell et al.'s (2011) CVF meta-analysis further confirmed that clan and adhocracy cultures are significantly associated with organisational effectiveness outcomes.

H2a: Leadership styles are positively associated with organisational culture.

H2b: Organisational culture is positively associated with resilience.

H2c: Organisational culture is positively associated with performance

H3a: Organisational culture mediates the positive effect of leadership styles resilience

H3b: Organisational culture mediates the positive effect of leadership styles on performance

2.4 Moderating Role of Psychological Safety Climate

Even well-configured leadership and culture cannot generate resilience or sustained performance if employees lack shared confidence that acting on what leaders model is safe. Edmondson (1999) established psychological safety as a precondition for learning behaviours through which organisations build adaptive capacity, and subsequent scholarship has extended this to the climate level (Newman et al., 2017; Baer and Frese, 2003). In the Nigerian oil and gas context, where hierarchical norms and high power distance have been extensively documented, psychological safety climate

represents a particularly consequential boundary condition: without it, the clan and adhocracy cultural orientations that resilience demands are suppressed by fear-based compliance and self-protective behaviour.

H4: Psychological safety climate positively moderates the relationship between leadership styles and organisational culture, such that the relationship is stronger when psychological safety climate is high.

If psychological safety conditions the degree to which leadership shapes culture, and culture mediates leadership's influence on resilience and performance, then safety must also condition the strength of indirect effects. The CVF's competing values logic sharpens this prediction: flexibility-oriented clan and adhocracy orientations that resilience requires depend more heavily on psychological safety than the stability-oriented market and hierarchy orientations that sustain performance. This conditional process model aligns with contingency theory and organisational climate theory's emphasis on shared perceptions as boundary conditions on culture-to-outcome pathways (Schneider et al., 2013). As such we propose that:

H5a: Psychological safety climate moderates the mediated pathway from leadership styles through organisational culture to organisational resilience, such that the indirect effect is stronger when psychological safety climate is high.

H5b: Psychological safety climate moderates the mediated pathway from leadership styles through organisational culture to organisational performance, such that the indirect effect is stronger when psychological safety climate is high.

The relationship between the variables as well as the hypothesized connection are shown in our conceptual model (See Figure 1).

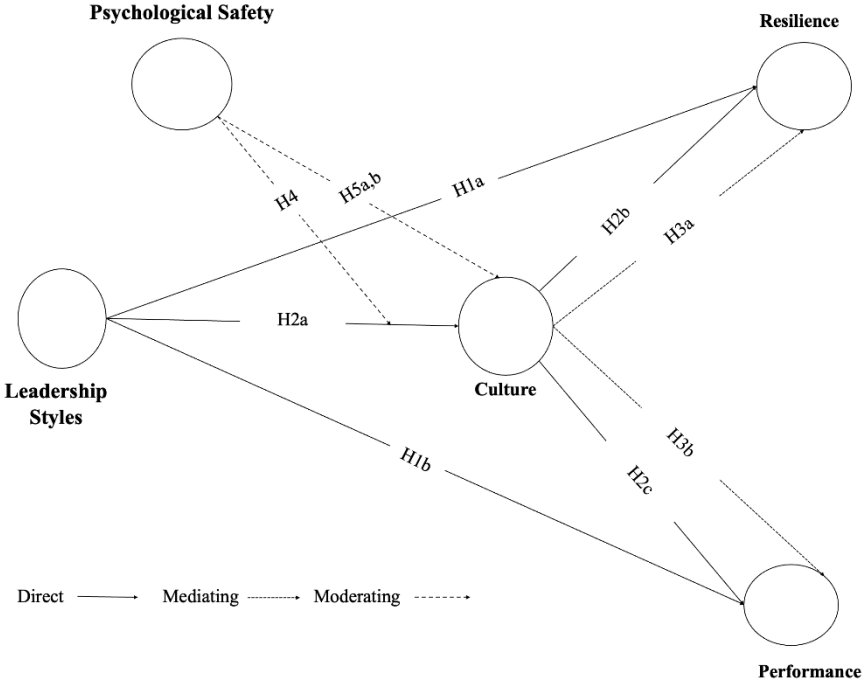

Figure 1. Conceptual model

3. Methodology

3.1 Research Design

This study adopts a convergent mixed-methods design (Creswell and Creswell, 2018), integrating quantitative PLS-SEM analysis with qualitative inductive thematic analysis of focus group data. The two methods were collected simultaneously and independently before being merged at the interpretation stage, enabling triangulation of mechanisms identified quantitatively with experiential explanations generated qualitatively.

3.2 Sample and Data Collection

For the quantitative component, stratified random sampling was employed across private indigenous oil and gas firms registered with the Nigerian Upstream Petroleum Regulatory Commission (NUPRC) operating in the Niger Delta. A total of 350 usable questionnaire responses were obtained from 12 participating firms, representing employees across operational, administrative, and managerial levels. The sample comprised 64.3% male and 35.7% female respondents, with 58.6% holding a first degree or higher and a mean organisational tenure of 6.4 years. For the qualitative component, four virtual focus group discussions (FGDs) involving 33 purposively selected participants across hierarchical cadres were conducted. Audio-recorded sessions were transcribed verbatim and subjected to inductive thematic analysis following Braun and Clarke's (2006) six-phase protocol.

3.3 Construct Operationalisation

All five second-order constructs were measured using reflective-reflective hierarchical component models. Leadership was operationalised through three first-order dimensions: transformational leadership (12-item adapted MLQ scale), transactional leadership (6 items), and democratic leadership (5 items adapted for the Nigerian context). Organisational culture used an adapted 16-item OCAI scale covering clan, adhocracy, market, and hierarchy orientations. Organisational resilience comprised three dimensions: anticipatory, adaptive, and recovery capacity (drawing on Lengnick-Hall et al., 2011; Duchek, 2020). Organisational performance used a 12-item balanced scorecard covering financial, operational, stakeholder, and innovation performance (Kaplan and Norton, 1992; Richard et al., 2009). Psychological safety climate was operationalised through voice safety, error tolerance, and interpersonal risk-taking dimensions, adapted from Edmondson (1999), Baer and Frese (2003), and Newman et al. (2017).

All items used a five-point Likert scale. The instrument demonstrated strong psychometric properties (Cronbach's $\alpha = 0.882$; KMO = 0.916; Bartlett's $p < 0.001$). Common method bias was addressed procedurally through anonymity assurances, item separation, and varied response formats, and statistically via Harman's single-factor test (largest factor = 28.4%, well below the 50% threshold). The questionnaire was pilot-tested on 30 employees from non-participating firms and validated through expert review.

3.4 Analytical Strategy

Data were analysed using Partial Least Squares Structural Equation Modelling (PLS-SEM) via SmartPLS 4, selected for its predictive orientation and suitability for complex models with mediation (Hair et al., 2019). The analysis followed two stages: measurement model evaluation (internal consistency, convergent and discriminant validity) and structural model assessment (path coefficients, R^2, and mediation using 5,000 bootstrap samples). Reliability and validity met established thresholds (CR > 0.70, AVE > 0.50, loadings > 0.70), while discriminant validity was confirmed using the HTMT criterion (< 0.85).

The instrument demonstrated strong psychometric properties ($\alpha = 0.882$; KMO = 0.916; Bartlett's $p < 0.001$), with acceptable inter-item and item-total correlations. Common method bias was addressed through procedural remedies (anonymity, item separation, varied scales) and statistical testing. Harman's single-factor test indicated the largest factor explained 28.4% of variance, below the 50% threshold, supported by marker variable analysis.

3.5 Qualitative Component

3.5.1 Focus Group Design and Participants

Four virtual focus group discussions (FGDs) involving 33 purposively selected participants across hierarchical cadres—interns (n = 3), contract staff (n = 6), junior staff (n = 8), senior staff (n = 9), and middle management (n = 7)—were conducted (See Table 1). Participants were recruited from the same eight organisations through HR facilitation, ensuring consistency across research strands. Audio recording was intentionally avoided given documented participant concerns regarding confidentiality within the hierarchical oil and gas corporate culture; instead, data were captured through researcher and assistant notes, supplemented by real-time speech-to-text transcription. Sessions lasted between 58 and 71 minutes and were conducted in English with Pidgin English interjections accommodated, audio-recorded with participant consent, and professionally transcribed. Transcripts were member-

checked with a sub-sample of participants to verify interpretive accuracy. Session notes were compared and synthesised within four hours of each discussion. Participant coding adopted the format [Level][Number], [Group]; for instance, SS3, G2 represents Senior Staff member 3 from Group 2.

Table 1. Focus Group Composition and Participant Characteristics

Group	No. of Participants	Org. Level	Dept. Mix	Years Exp. (avg)	Code Range
Group 1	9	Mixed (JS to SS)	Operations, Tech	7.2	JS1–SS4, G1
Group 2	8	Mixed (IN to MM)	Admin, Finance	9.6	IN1–MM2, G2
Group 3	8	Mixed (CT to SS)	Logistics, HSE	8.1	CT1–SS5, G3
Group 4	8	Mixed (JS to MM)	Operations, Eng.	11.3	JS1–MM3, G4
Total	33	All cadres	Multi-departmental	9.1	–

Note: Codes: IN = Intern; CT = Contract Staff; JS = Junior Staff; SS = Senior Staff; MM = Middle Management. Sessions conducted virtually; duration 40–50 min per group.

3.5.2 Qualitative Analysis

A reflexive thematic analysis procedure was employed (Braun and Clarke, 2006), proceeding through familiarisation, initial coding, theme development, review, definition, and reporting. An inductive-abductive approach was adopted: initial codes were derived empirically from the data, but theme development was progressively shaped by the FRLM and CVF theoretical lenses to facilitate theory elaboration. Inter-rater reliability was estimated via independent coding of 20% of transcripts by a second researcher, yielding a Cohen's kappa of .79, indicating substantial agreement. NVivo 14 supported data management and coding. Qualitative findings are integrated with quantitative results at the discussion stage, with the qualitative strand elaborating mechanisms and contextual conditions that underlie the quantitative relationships.

3.6 Integration

Integration in this study occurred through sequential explanatory integration following concurrent data collection (Ivankova et al., 2006). Quantitative and qualitative data were first analysed separately using their respective analytical traditions. Following independent analysis, quantitative results and qualitative themes were systematically compared through a side-by-side comparison approach (Creswell and Plano Clark, 2018). This involved identifying corresponding findings across datasets, The primary integration occurred through construction of a joint display matrix (Guetterman et al., 2015), presented as Table 4.

3.7 Ethical Considerations

Ethical approval was obtained from the institutional research ethics committee. All participants provided informed consent, and organisational and individual identifiers were anonymised throughout the research process.

4. Results

4.1 Measurement Model Assessment

All outer loadings exceed 0.70 (Hair et al., 2022), with two items retained on theoretical grounds (loadings 0.668 and 0.672) as removal did not materially improve AVE. All AVE values exceed 0.50, confirming convergent validity. CR values range from 0.834 to 0.921 and Cronbach's Alpha from 0.801 to 0.893, all exceeding recommended thresholds. For second-order constructs, standardised factor loadings of lower-order dimensions on their respective higher-order constructs range from 0.82 to 0.93. VIF values range from 1.87 to 3.61, all below 5.0. All Fornell-Larcker and HTMT values between second-order constructs are below the conservative 0.85 criterion, confirming discrim Data were analysed using Partial Least Squares Structural Equation Modelling (PLS-SEM) via SmartPLS 4, selected for its predictive orientation and suitability for complex models with mediation (Hair et al., 2019). The analysis followed two

stages: measurement model evaluation (internal consistency, convergent and discriminant validity) and structural model assessment (path coefficients, R^2, and mediation using 5,000 bootstrap samples). Reliability and validity met established thresholds (CR > 0.70, AVE > 0.50, loadings > 0.70), while discriminant validity was confirmed using the HTMT criterion (< 0.85) (see Tables 2, 3, and 4).

Table 2. Factor Loadings, Reliability and Validity (Second-Order Constructs)

Second-Order Construct	**First-Order Dimension**	***SFL***	**VIF**	**α**	**rho_a**	**rho_c**	**AVE**
Leadership Style (LS)	Transformational Leadership	.91	3.21	0.91	0.91	0.94	0.84
	Transactional Leadership	.88	2.87				
	Democratic Leadership	.86	2.54				
Organisational Culture (OC)	Clan Culture	.89	3.14	0.90	0.90	0.94	0.80
	Adhocracy Culture	.90	3.41				
	Market Culture	.87	2.98				
	Hierarchy Culture	.88	2.73				
Organisational Resilience (OR)	Anticipatory Capacity	.90	3.07	0.88	0.88	0.92	0.79
	Adaptive Capacity	.91	3.29				
	Recovery Capacity	.87	2.61				
Organisational Performance (OP)	Financial Performance	.89	3.18	0.91	0.91	0.95	0.82
	Operational Performance	.92	3.61				
	Stakeholder Performance	.88	3.04				
	Innovation Performance	.82	1.87				

Note: SFL = Standardised Factor Loading; VIF = Variance Inflation Factor; α = Cronbach's Alpha; rho_a = Dijkstra-Henseler's rho; rho_c = Composite Reliability. Reliability indices (α, rho_a, rho_c) and AVE are reported only for the first row of each second-order construct, corresponding to the model-level statistics. VIF values assessed collinearity among lower-order components; all values below 5.0 (Hair et al., 2019). N = 350.

Table 3. Fornell-Larcker Criterion (First-Order Dimensions)

Construct	DML	OC	OP	OR	PSC	TFL	TSL
DML	.746						
OC	.573	.737					
OP	.491	.601	.744				
OR	.487	.632	.548	.729			
PSC	.224	.193	.211	.187	.716		
TFL	.612	.628	.579	.513	.218	.722	
TSL	.534	.541	.512	.489	.298	.581	.734

Note: Diagonal (shaded) values represent the square root of AVE for each second-order construct. Off-diagonal values are correlations between constructs. Second-order AVEs are computed from HTMT-informed composite scores. Discriminant validity is established when diagonal values exceed off-diagonal values in the same row and column (Fornell and Larcker, 1981).

Table 4. Heterotrait-Monotrait Ratio (HTMT)

	DML	OC	OP	OR	PSC	TFL	TSL
DML							
OC	.681						
OP	.601	.706					
OR	.591	.741	.651				
PSC	.291	.248	.274	.234			
TFL	.714	.732	.682	.621	.268		
TSL	.631	.638	.601	.581	.348	.684	

Note: All HTMT values below the recommended threshold of 0.90 (Henseler et al., 2015), and below the more conservative threshold of 0.85 for conceptually similar constructs. Values in blank cells indicate redundancy (upper triangle not shown). N = 350.

4.2 Structural Model and Hypotheses Testing

4.2.1 Model Fit and Explanatory Power

The structural model demonstrated good fit (SRMR = 0.051; NFI = 0.924; d_ULS = 0.178; d_G = 0.183). The model accounts for 62.4% of variance in organisational resilience ($R^2 = 0.624$) and 68.1% in organisational performance ($R^2 = 0.681$), indicating substantial predictive accuracy. Organisational culture records $R^2 = 0.531$. Effect sizes confirm substantive contributions: f^2 for leadership on culture = 0.41 (large); f^2 for culture on resilience and performance = 0.39 and 0.44, respectively (see Table 5).

Table 5. Structural Path Coefficients (Direct and Indirect Effects)

Path	β	SD	t	p	95% CI
Direct Effects					
LS → OR (H1a)	0.124	0.083	1.487	0.137	[−0.04, 0.29]
LS → OP (H1b)	0.374	0.087	4.312	<0.001	[0.21, 0.54]
LS → OC (H2a)	0.539	0.103	5.214	<0.001	[0.34, 0.74]

OC → OR (H2b)	0.461	0.092	5.032	<0.001	[0.28, 0.63]
OC → OP (H2c)	0.398	0.085	4.689	<0.001	[0.23, 0.57]
Indirect (Mediation) Effects					
LS → OC → OR (H3a)	0.249	0.058	4.293	<0.001	[0.14, 0.37]
LS → OC → OP (H3a)	0.215	0.051	4.118	<0.001	[0.12, 0.32]

Note: LS = Leadership Styles; OC = Organisational Culture; OR = Organisational Resilience; OP = Organisational Performance; β = standardised path coefficient; SD = standard deviation; CI = confidence interval (bias-corrected, 5,000 bootstraps). Source: SmartPLS Output (2025).

4.2.2 Direct Effects

H1a posited a positive association between leadership styles (LS) and organisational resilience (OR). Contrary to expectation, the direct path was non-significant (β = 0.124, t = 1.487, p = 0.137, 95% CI [−0.04, 0.29]); H1a is not supported. This null direct effect is theoretically instructive: leadership behaviour does not translate directly into resilience but operates through the cultural configuration it produces. H1b was supported: the direct effect of LS on organisational performance (OP) was positive and significant (β = 0.374, t = 4.312, p < 0.001, 95% CI [0.21, 0.54]). Both H2a (β = 0.539, t = 5.214, p < 0.001) confirming that leadership behaviour meaningfully shapes the cultural configuration of indigenous oil and gas firms and H2b and H2c (OR: β = 0.461, p < 0.001; OP: β = 0.398, p < 0.001) are supported, showing that culture serves as a significant direct antecedent of both resilience and performance in this context (See Figure 2).

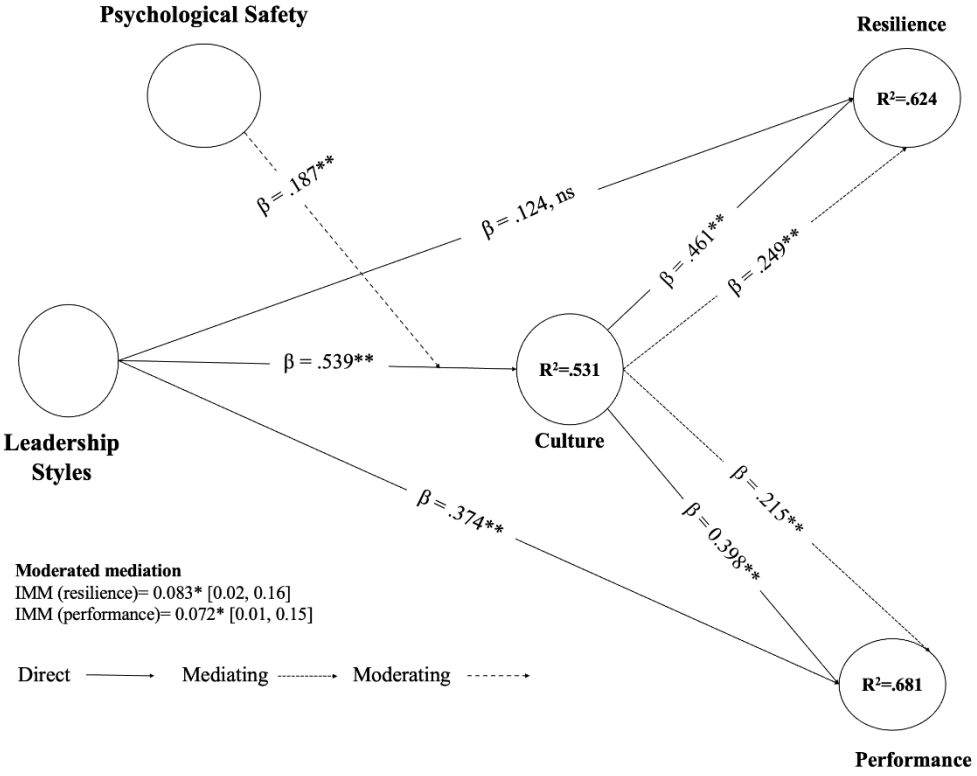

Figure 2. SEM Path Analysis

4.2.3 Mediation Analysis

H3a is supported for both outcome dimensions. The indirect effect of LS on OR through OC was positive and significant (β = 0.249, t = 4.293, p < 0.001, 95% CI [0.14, 0.37]), as was the indirect effect on OP (β = 0.215, t = 4.118, p < 0.001, 95% CI [0.12, 0.32]). Determining mediation type: for resilience, the direct effect of LS was non-significant while the indirect effect through OC was significant, indicating full mediation (ratio of indirect to total effects = 1.00). For performance, both the direct (β = 0.374) and indirect (β = 0.215) paths were significant, indicating partial mediation (ratio = 0.37). This asymmetric mediation pattern reveals that resilience requires complete cultural embedding while performance responds to both direct leadership influence and cultural mediation.

4.3 Moderated Mediation Analysis

H4 proposed that psychological safety climate (PSC) positively moderates the LS–OC relationship. The interaction term LS × PSC yielded a positive, statistically significant coefficient (β = 0.187, t = 2.934, p = 0.003, 95% CI [0.06, 0.31]), confirming H4. In contexts of low PSC, cultural transmission of leadership behaviour is attenuated as employees engage in self-protective compliance rather than genuine value internalisation.

For the resilience pathway (H5a), conditional indirect effects were positive and significant across all PSC levels: high PSC (β = 0.291, p < 0.001), mean (β = 0.249, p < 0.001), and low PSC (β = 0.208, p = 0.001). The index of moderated mediation was positive and significant (IMM = 0.083, 95% CI [0.02, 0.16]), confirming H5a. For the performance pathway (H5b), conditional indirect effects were similarly significant across all levels: high PSC (β = 0.251), mean (β = 0.215), and low PSC (β = 0.179), with IMM = 0.072 (95% CI [0.01, 0.15]), confirming H5b. The significant IMM values indicate that indirect effects are systematically amplified as shared perceptions of safety increase.

Table 6. Conditional Indirect Effects and Index of Moderated Mediation

Pathway / PSC Level	β	SD	t	p	95% CI
LS → OC → OR (H5a)					
Low PSC (−1SD)	0.208	0.065	3.214	0.001	[0.09, 0.33]
Mean PSC	0.249	0.058	4.293	<0.001	[0.14, 0.37]
High PSC (+1SD)	0.291	0.076	3.847	<0.001	[0.17, 0.42]
IMM (H5a)	**0.083**	0.037	2.243	0.025	[0.02, 0.16]
LS → OC → OP (H5b)					
Low PSC (−1SD)	0.179	0.060	2.974	0.003	[0.06, 0.30]
Mean PSC	0.215	0.052	4.118	<0.001	[0.12, 0.32]
High PSC (+1SD)	0.251	0.069	3.614	<0.001	[0.11, 0.39]
IMM (H5b)	**0.072**	0.033	2.182	0.029	[0.01, 0.15]

Note: IMM = Index of Moderated Mediation; LS = Leadership Styles; OC = Organisational Culture; OR = Organisational Resilience; OP = Organisational Performance; PSC = Psychological Safety Climate. β = standardised path coefficient; CI = bias-corrected bootstrapped confidence interval (5,000 replications). Source: SmartPLS Output (2025).

Table 7. Summary of Hypotheses Testing

H	Statement	β	t	p	Decision
H1a	LS positively associated with OR	0.124	1.487	0.137	**Not Supported**
H1b	LS positively associated with OP	0.374	4.312	<0.001	**Supported**
H2a	LS positively associated with OC	0.539	5.214	<0.001	**Supported**
H2b	OC positively associated with OR	0.461 /	5.032	<0.001	**Supported**
H2c	OC positively associated with OP	0.398	4.689	<0.001	**Supported**
H3a	OC mediates LS → OR	0.249 /	4.293	<0.001	**Supported**
H3b	OC mediates LS → OP	0.215	4.118	<0.001	**Supported**
H4	PSC moderates LS → OC	0.187	2.934	0.003	**Supported**
H5a	PSC moderates LS → OC → OR indirect path	IMM = 0.083	2.243	0.025	**Supported**
H5b	PSC moderates LS → OC → OP indirect path	IMM = 0.072	2.182	0.029	**Supported**

Note: H = Hypothesis; LS = Leadership Styles; OC = Organisational Culture; OR = Organisational Resilience; OP = Organisational Performance; PSC = Psychological Safety Climate; IMM = Index of Moderated Mediation. All path coefficients based on 5,000 bootstrap replications.

Source: SmartPLS Output (2025).

4.4 Qualitative Findings

Thematic analysis of the FGDs yielded four interrelated themes: (1) the aspirational–experiential leadership divide, (2) culture as a structuring force, (3) the control paradox, and (4) the role modelling imperative (See Appendix B).

4.4.1 Theme 1: The Aspirational–Experiential Leadership Divide

A dominant pattern across the data is the disconnect between participants' understanding of effective leadership and their lived organisational experiences. While participants demonstrated familiarity with contemporary leadership ideals, their accounts of actual practice revealed a contrasting reality. Participants articulated leadership in aspirational terms aligned with participative and transformational models. These ideals emphasised inclusion, fairness, and engagement. However, their lived experiences reflected predominantly hierarchical and directive practices. As one junior staff participant explained, *"Most of our top managers have an autocratic style—decisions come from the top, and we just execute" (*JS3, G1). Similarly, a contract staff participant noted that *"the leadership style is often performance-obsessed, leaving little room for employee input"* (CT1, G2), indicating a strong orientation toward control rather than participation.

Communication practices further illustrated this divide. Although formal structures existed, they were experienced as impersonal and ineffective. For instance, a participant observed that *"most leaders communicate through official memos or reports, which feels cold and distant"* (JS2, G1), while another added that *"feedback channels exist but aren't genuinely used—employees rarely see action afterward"* (JS2, G1). These accounts suggest that communication mechanisms function symbolically rather than substantively.

Motivational systems were similarly described as compliance-driven. As one participant stated, *"motivation comes from fear of sanctions, not from genuine engagement"* (CT2, G1), reflecting reliance on extrinsic control mechanisms. Leadership behaviour was also perceived as reactive, with participants noting that *"leaders are too reactive—they wait for problems to escalate before taking action"* (JS3, G2).

Importantly, participants located this disconnect within systemic rather than purely individual factors. While some variation was acknowledged: *"some departments are democratic, others are completely top-down"* (JS4, G2), the dominant explanation emphasised cultural constraints. As one participant noted, *"the culture doesn't really encourage open feedback, so even democratic leaders end up being top-down"* (JS2, G1). This indicates that the gap between leadership ideals and practice is structurally embedded.

4.4.2 Theme 2: Culture as a Structuring Force

The second theme highlights organisational culture as a powerful structuring force that shapes leadership behaviour and organisational outcomes. Culture was described as an embedded system of norms and expectations that defines acceptable conduct.

Hierarchy emerged as a central feature. Participants described a strong norm of deference to authority, with one junior staff member noting that "there's a strong hierarchy here—you rarely question leadership decisions even when you have a better idea" (JS2, G1). This hierarchical structure limited upward voice and reinforced top-down control. A middle manager further observed that *"many of the senior executives lead from a distance; we only interact with their directives through middle managers"* (MM1, G3), indicating relational and structural distance across levels.

Tradition and continuity also shaped organisational practices. Participants described a conservative orientation resistant to change, as reflected in the statement: *"the culture here is conservative—we follow rules strictly but are slow to embrace change"* (MM1, G1). Attempts at innovation were often resisted, with one participant noting that *"leaders who try to introduce new ideas often face resistance because the culture values tradition"* (SS1, G1).

Loyalty-based relational systems further structured organisational dynamics. As one participant explained, *"our culture rewards loyalty over performance"* (JS3, G3), highlighting how informal networks can override formal meritocratic principles. Compliance was also deeply institutionalised, with a senior staff participant noting that "we have a very disciplined and compliance-driven culture, which helps us stay on the right side of regulations" (SS1, G1). However, this discipline fostered caution, as reflected in the observation that "there's a culture of caution, which helps us avoid costly mistakes but also stifles innovation" (MM2, G2).

Crucially, culture actively normalised leadership behaviour. Participants described how hierarchical expectations and risk aversion reinforced directive leadership styles. For example, one participant stated that *"our culture emphasises respect for authority, so leaders naturally adopt a more autocratic style"* (MM1, G1), while another observed that *"because our culture is risk-averse, even visionary leaders become cautious over time"* (MM2, G2). This indicates that culture operates as a socialising mechanism shaping leadership practice.

Communication dynamics reflected these cultural constraints. Information flow was filtered through hierarchy, with one participant noting that "*middle managers act as filters, deciding what information gets passed up or down"* (MM3, G3). Employees often withheld negative information, as *"people hide problems instead of reporting them"* (JS3, G4), reflecting fear-based norms.

Despite these constraints, participants also identified positive cultural elements. A strong sense of collective identity was evident, with one participant stating that *"we operate like a family; that unity keeps morale high during tough market periods"* (CT1, G1). Informal support networks were also highlighted: *"it's easy to get help from colleagues across departments"* (CT2, G3), while team cohesion during crises was emphasised in the observation that "everyone pulls together to keep operations running" (JS4, G2). These findings suggest that culture embodies both enabling and constraining dynamics.

4.4.3 Theme 3: The Control Paradox

The third theme captures a fundamental paradox: the same control-oriented practices that enable organisational survival simultaneously constrain adaptability and innovation. Participants acknowledged the effectiveness of control mechanisms in ensuring stability. Leadership decisiveness was particularly valued during crises, as reflected in the statement: *"our leaders' quick decision-making helped us stay ahead during the last oil price crash"* (SS1, G1). Similarly, performance discipline contributed to organisational reputation, with one participant noting that "*their focus on efficiency and quality has built a strong reputation for us in the sector"* (MM2, G2).

However, these strengths were accompanied by significant constraints. Centralised decision-making created delays, as *"autocratic leadership slows problem-solving because everyone waits for approval from the top"* (CT4, G2). This reduced responsiveness, with participants noting that *"we often lose opportunities to respond fast to market changes"* (JS1, G1).

Fear-based control systems further undermined organisational effectiveness. As one participant explained, "*our top managers lead with fear rather than strategy, so people hide problems instead of reporting them"* (JS3, G4). Similarly, *"motivation comes from fear rather than genuine engagement"* (CT2, G1), limiting intrinsic motivation and learning.

Innovation was particularly constrained. Participants observed that *"innovation is not encouraged here, so we lag behind more dynamic competitors"* (JS5, G2), and noted the resulting talent loss: *"those who crave innovation often leave for more flexible environments"* (CT3, G4). Organisational responses were largely reactive, with one participant

stating that *"leaders are too reactive—they wait for problems to escalate before taking action"* (JS3, G2), and another adding that "*leadership decisions are often made in crisis mode rather than through foresight"* (MM3, G4). Participants demonstrated clear awareness of this paradox. As one middle manager summarised, *"there's a culture of caution, which helps us avoid costly mistakes but also stifles innovation"* (MM2, G2), highlighting the trade-off between resilience and adaptability.

4.4.4 Theme 4: The Role Modelling Imperative

The final theme underscores the central role of leadership behaviour in shaping organisational culture. Participants consistently emphasised that leadership influence is enacted through observable actions rather than formal rhetoric. As one participant stated, *"employees emulate what leaders do, not what they say"* (JS1, G1), highlighting the primacy of behavioural cues. This was reinforced by another participant who noted that *"leaders must walk the talk—actions speak louder than words"* (JS2, G1).

Positive leadership behaviours reinforced trust and performance. For example, *"when leadership recognises effort, performance improves"* (SS4, G3), and *"when leaders act with honesty, staff give their best without fear or favour"* (JS1, G1). Conversely, inconsistency undermined organisational outcomes. As one participant observed, *"when leadership favours a few and ignores others, morale and performance drop drastically"* (CT1, G2), while another noted that *"inconsistency kills momentum"* (SS4, G3).

These findings indicate that leadership behaviour functions as the primary mechanism through which culture is enacted and reinforced. Alignment between espoused values and enacted practices strengthens organisational cohesion, whereas misalignment generates cynicism and disengagement.

5. Discussion of Findings

Our findings are discussed through a pattern of divergence, convergence, and complementarity across the quantitative and qualitative studies, clarifying not only whether the two datasets agree, but how and why relationships manifest differently across mechanisms and contexts (See Appendix C). The direct effect of leadership styles on organisational resilience was non-significant ($\beta = 0.124$, $p = 0.137$), a finding that initially appears to contradict both the FRLM's predictions and prior empirical evidence that transformational leadership builds adaptive organisational capacity (Madi Odeh et al., 2023; Sabbah, 2024). However, the qualitative findings attempt to resolve this apparent contradiction. Participants described leadership as highly consequential in their organisations, but predominantly enacted through autocratic, reactive, and compliance-driven modes (JS3, G1), and "leaders are too reactive… they wait for problems to escalate before taking action" (JS3, G2). This divergence between the quantitative null effect and the qualitative portrait of consequential but constrained leadership reveals that it is not that leadership is irrelevant to resilience, but that the form of leadership predominant in these firms, hierarchically oriented and control-based, produces cultural configurations that are insufficient to directly generate resilience. The FRLM's prediction that transformational leadership builds resilience-relevant capacities holds in principle, but is contingent on whether the enacted leadership style reaches the flexibility-oriented cultural orientations such as clan and adhocracy that anticipatory, adaptive, and recovery capacities require. Where leadership enactment is weighted toward the stability quadrants of the CVF, direct resilience effects do not materialise. This pattern extends Madi Odeh et al. (2023), who found partial mediation of transformational leadership on resilience through adaptive culture, by identifying the specific contextual condition under which that mediation becomes complete.

The findings from both studies converge strongly in establishing organisational culture as the primary mechanism through which leadership shapes firm-level outcomes. Quantitatively, leadership significantly shapes culture ($\beta = 0.539$, $p < 0.001$), and culture strongly predicts both resilience ($\beta = 0.461$, $p < 0.001$) and performance ($\beta = 0.398$, $p < 0.001$), with significant indirect effects confirming full mediation for resilience and partial mediation for performance. This convergence is reinforced by the qualitative themes of culture as a structuring force and the role modelling imperative. Participants consistently described culture as the environment within which leadership behaviour is enacted and interpreted: "our culture emphasises respect for authority, so leaders naturally adopt a more autocratic style" (MM1, G1), and "employees emulate what leaders do, not what they say" (JS1, G1). These accounts confirm that leadership operates primarily by shaping the shared norms, assumptions, and behavioural expectations that collectively constitute culture, which in turn determines organisational outcomes, consistent with the logics of CVF. This also aligns with Iqbal et al. (2023), who demonstrated full mediation of leadership's effect on performance through quality culture, and with Ikebudu (2025), who found that leadership fosters innovation culture in Nigerian oil and gas firms through employee engagement. The present study extends this body of evidence by demonstrating that the mediating role of culture extends to organisational resilience and that the completeness of that mediation varies systematically by outcome type.

The most theoretically generative finding is the differential mediation pattern: leadership directly drives performance ($\beta = 0.374$, $p < 0.001$) while its influence on resilience operates exclusively through culture (full mediation). The quantitative model establishes that this asymmetry exists; the qualitative strand explains why. The control paradox theme reveals that control-based leadership simultaneously enables short-term performance and constrains the adaptive conditions resilience demands. Participants noted that directive leadership generated efficiency and reputational gains (e.g. MM2, G2), while also producing centralised bottlenecks, learning barriers, and innovation suppression (e.g. CT4, G2), and "innovation is not encouraged here, so we lag behind more dynamic competitors" (JS5, G2). In CVF terms, control-oriented leadership activates the market and hierarchy cultural quadrants that drive performance, but these same orientations actively trade off against the clan and adhocracy orientations through which resilience is built. The qualitative data therefore extend the quantitative model by uncovering the generative mechanism that drives partial versus full mediation. This finding speaks directly to Garengo and Betto's (2022) observation that transactional leadership maintains operational performance in high-reliability environments through procedural rigour, while simultaneously cautioning that such rigour may not cultivate the adaptive orientation associated with resilience.

The moderated mediation findings confirm that psychological safety climate amplifies the culture-mediated pathway for both resilience (IMM = 0.083, $p = 0.025$) and performance (IMM = 0.072, $p = 0.029$), and significantly strengthens the leadership–culture relationship ($\beta = 0.187$, $p = 0.003$). The qualitative strand corroborates this statistically while adding explanatory depth. Participants across all groups described systematically low psychological safety climates: "people hide problems instead of reporting them" (JS3, G4); "feedback channels exist but aren't genuinely used" (JS2, G1); "motivation comes from fear of sanctions, not from genuine engagement" (CT2, G1). These accounts reveal that psychological safety does not only moderate relationships statistically, it determines whether leadership behaviours are internalised into the flexible, collaborative cultural orientations that the CVF associates with resilience, or are reduced to symbolic compliance that produces surface-level conformity without genuine cultural embedding. In environments where employees do not share the perception that voice and interpersonal risk-taking are safe, the clan and adhocracy cultural orientations required for resilience cannot be activated regardless of the leadership behaviour on display. This is consistent with Newman et al.'s (2017) evidence that psychological safety conditions learning behaviour under leadership, and extends it by demonstrating that safety also conditions the degree to which leadership translates into culturally embedded resilience capacity at the firm level. These findings establish that leadership effectiveness in this context is indirect, conditional, and culturally embedded.

5.1 Implications for Theory and Practice

5.1.1 Theoretical Implications

This study advances the FRLM by specifying organisational culture as the mechanism through which leadership's form of influence varies by outcome type. By demonstrating full mediation for resilience and partial mediation for performance, the study reveals that FRLM's explanatory power is outcome-contingent: leadership operates as a direct driver of performance but only as an indirect cultivator of resilience. This distinction is absent from prior FRLM applications in oil and gas contexts (Thomas, 2020; Anyigba and Lartey, 2024) and carries broader implications for how the model is applied in institutionally constrained environments. Second, the study extends the CVF by demonstrating that culture's mediating role is not uniform across outcome domains—flexibility-oriented configurations that resilience demands differ from the stability-oriented configurations that sustain performance. Third, extending Edmondson's (1999) framework from the team to the firm level, the study establishes PSC as a boundary condition, not merely a facilitating variable, within the leadership–culture–outcome chain, addressing a gap identified by Newman et al. (2017).

5.1.2 Practical Implications

For senior leaders and executive teams in indigenous oil and gas firms, the full mediation finding for resilience carries a direct implication: investing in leadership development programmes without simultaneously addressing the cultural environment those leaders are embedded in is unlikely to build organisational resilience. Resilience requires cultural depth, comprising shared norms of anticipation, adaptation, and recovery, that are not produced by leadership fiat but cultivated through sustained and visible leadership behaviour over time (Duchek, 2020; Vogus and Sutcliffe, 2007). Organisations should therefore invest in culture-building initiatives such as structured onboarding into organisational values, cross-functional communities of practice, and after-action review processes that institutionalise learning from disruption (Lengnick-Hall, Beck and Lengnick-Hall, 2011; Madi Odeh, Obeidat and Tarhini, 2023).

The psychological safety findings carry equally concrete implications. The qualitative evidence indicates that fear-based management practices suppress employee voice and reinforce compliance-driven behaviour (Edmondson and Lei, 2014; Newman, Donohue and Eva, 2017). These conditions weaken the cultural transmission pathway linking

leadership to resilience and performance, as reflected in the significant moderated mediation indices (IMM = 0.083; IMM = 0.072). Managers should therefore prioritise psychological safety as an operational imperative rather than a normative aspiration (Edmondson, 1999; Baer and Frese, 2003). This includes modelling openness, acknowledging errors, rewarding upward voice, and creating structured channels that bypass hierarchical filtering (Newman, Donohue and Eva, 2017).

For boards and HR functions, the partial mediation finding for performance, where leadership retains a direct effect ($\beta = 0.374$, $p < 0.001$), indicates that both direct and indirect pathways must be managed. While performance-oriented leadership remains critical for short-term outcomes (Garengo and Betto, 2022; Fischer and Sitkin, 2023), long-term resilience depends on leadership behaviours that shape culture, enable participation, and support sensemaking (Bass and Avolio, 1990; Cameron and Quinn, 2011).

For regulators and industry bodies, these findings highlight the importance of supporting capacity-building initiatives that strengthen organisational and cultural capabilities alongside technical competence, particularly in contexts of industry transition (Ovadia, 2021; Anyigba and Lartey, 2024; Musa and Nwokoro, 2025; Obi, 2025).

5.2 Limitations and Future Studies

Four limitations should be acknowledged. First, the sample is drawn exclusively from indigenous private oil and gas firms in the Niger Delta, limiting direct generalisability to other sectors, geographies, or ownership structures. Future research should test the conditional process model in comparative settings, including state-owned energy enterprises and non-extractive high-risk industries. Second, the cross-sectional, single-source quantitative design cannot establish causal directionality. The full mediation of leadership's influence on resilience through culture implies a developmental process that longitudinal designs tracking cultural formation, leadership behaviour, and resilience outcomes over time would better capture. Third, the qualitative component involved 33 participants from only two organisations, limiting representativeness across the full diversity of indigenous firm types in the Niger Delta. Future studies should employ deeper multi-site qualitative designs. Finally, the operationalisation of leadership as a single higher-order composite may obscure differential effects of transformational, transactional, and democratic styles. Future research should test whether full mediation for resilience holds for each leadership style independently.

6. Conclusion

The question motivating this study was not whether leadership matters in volatile institutional environments—it does—but how and under what conditions its influence reaches the firm-level outcomes that determine organisational survival. The findings answer that question with precision. Leadership does not build resilience directly; it builds culture, and culture builds resilience. It builds performance both directly and through culture, revealing a bifurcated influence structure with consequential implications for how organisations in high-risk contexts should understand and invest in leadership. Psychological safety is not a peripheral climate feature but the mechanism that determines whether leadership's cultural influence is genuine or symbolic. In a sector where indigenous firms are absorbing major asset portfolios once held by multinationals, and where the institutional infrastructure that supported multinationals is absent, the question of what internally constitutes sustainable organisational capacity has never been more urgent. Leadership that achieves compliance may sustain performance in the short run. Leadership that builds culture and safety builds organisations capable of enduring.

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Authors' contributions

Dr. Harshini Esther was responsible for the study design and revising the article. Nana Gbolahan was responsible for data collection and drafting the manuscript. All authors read and approved of the final manuscript. Both authors agreed that Nana Gbolahan would be the main author while Dr Harshin Esther would provide regular direction and review.

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Appendix

Appendix A. Measurement Model Assessment (First-Order Constructs)

Construct / Item	Loading	CA	CR_α	CR_ρ	AVE
Transformational Leadership (TFL)		.858	.841	.893	.521
TFL_II1: Instils pride and sense of mission	.754				
TFL_II2: Builds trust through consistent values	.761				
TFL_IM1: Communicates compelling vision	.772				
TFL_IM2: Expresses enthusiasm about goals	.703				
TFL_IS1: Encourages innovative problem-solving	.712				
TFL_IS2: Stimulates rethinking of assumptions	.743				
TFL_IC1: Attends to individual development needs	.668†				
TFL_IC2: Coaches for strengths	.718				
Transactional Leadership (TSL)		.821	.822	.875	.538
TSL_CR1: Rewards achievement of targets	.786				
TSL_CR2: Links performance to clear incentives	.754				
TSL_MBE1: Monitors deviations from standards	.703				
TSL_MBE2: Takes corrective action proactively	.715				
Democratic Leadership (DML)		.834	.838	.884	.557
DML_PD1: Involves employees in decisions	.789				
DML_PD2: Seeks input before implementing changes	.745				
DML_CC1: Communicates openly about challenges	.701				
Organisational Culture (OC)		.871	.862	.903	.543
OC_Clan1: Team spirit and belonging	.731				
OC_Clan2: Leadership values mentoring	.712				
OC_Adh1: Innovation and risk-taking encouraged	.758				
OC_Adh2: Entrepreneurial values visible	.743				
OC_Mkt1: Competitive performance emphasis	.719				

OC_Hier1: Rules and formal procedures guide conduct	.748				
Organisational Resilience (OR)		.849	.843	.893	.531
OR_Ant1: Identifies disruptive threats early	.741				
OR_Ant2: Maintains crisis preparedness systems	.728				
OR_Adp1: Reconfigures resources during disruption	.756				
OR_Adp2: Adapts strategies in response to shocks	.711				
OR_Rec1: Restores operations effectively post-crisis	.672†				
Organisational Performance (OP)		.893	.885	.916	.553
OP_Fin1: Revenue growth over 3 years	.762				
OP_Fin2: Cost management effectiveness	.748				
OP_Opr1: Operational productivity	.771				
OP_Sta1: Employee satisfaction	.739				
OP_Sta2: Community relations quality	.714				
Psychological Safety Climate (PSC)		0.80	0.82	0.86	0.60
PSC1 – Comfortable raising concerns without fear	0.78				
PSC2 – Mistakes treated as learning, not blame	0.76				
PSC3 – Safe to challenge decisions or the status quo	0.79				
PSC4 – Freedom to speak up without interpersonal risk	0.77				

Note: CA = Cronbach's Alpha; CR_α = Composite Reliability (alpha-based); CR_ρ = Composite Reliability (rho_c); AVE = Average Variance Extracted. † Item retained on theoretical grounds; all other loadings ≥ 0.70. N = 350.

Appendix B. Thematic Summary table

Themes	Sub-themes	First-Order Codes (Informant-Centric)	Illustrative Quotes
1. Aspirational–Experiential Leadership Divide	Aspirational Conceptions of Leadership	Leadership as participative; importance of communication; integrity and fairness; empowerment and inclusion; employee voice	"A good leader listens before acting and ensures everyone's voice counts" (JS1, G1); "Integrity builds the foundation of trust; without it, leadership crumbles" (JS2, G1)
	Experienced Reality of Leadership	Autocratic leadership; top-down decision-making; performance pressure; lack of employee input; symbolic communication	"Most of our top managers have an autocratic style—decisions come from the top, and we just execute" (JS3, G1); "The leadership style is often performance-obsessed, leaving little room for employee input" (CT1, G2)
	Communication and Motivation Disconnect	Impersonal communication; ineffective feedback systems; fear-based motivation; reactive leadership	"Most leaders communicate through official memos or reports, which feels cold and distant" (JS2, G1); "Motivation comes from fear of sanctions, not from genuine engagement" (CT2, G1)
	Explanations for the Gap	Departmental variation; structural constraints; cultural pressure; limited autonomy of leaders	"Some departments are democratic, others are completely top-down" (JS4, G2); "The culture doesn't really encourage open feedback, so even democratic leaders end up being top-down" (JS2, G1)
2. Culture as a Structuring Force	Cultural Foundations of Leadership	Hierarchy as social order; respect for authority; tradition and continuity; loyalty networks; compliance orientation	"There's a strong hierarchy here—you rarely question leadership decisions even when you have a better idea" (JS2, G1); "We have a very disciplined and compliance-driven culture, which helps us stay on the right side of regulations" (SS1, G1)
	Mechanisms of Cultural Normalisation	Socialisation into hierarchy; risk aversion; intolerance for failure; constrained leadership autonomy; filtering of information	"Our culture emphasises respect for authority, so leaders naturally adopt a more autocratic style" (MM1, G1); "Because our culture is risk-averse, even visionary leaders become cautious over time" (MM2, G2)
	Communication Constraints	Information filtering; restricted upward voice; fear of reporting problems; symbolic feedback systems	"Middle managers act as filters, deciding what information gets passed up or down" (MM3, G3); "People hide problems instead of reporting them" (JS3, G4)
	Positive Cultural Dimensions	Collectivism; team spirit; informal support networks; organisational cohesion; crisis resilience	"We operate like a family; that unity keeps morale high during tough market periods" (CT1, G1); "It's easy to get help from colleagues across departments" (CT2, G3)

3. The Control Paradox	Control as Survival Mechanism	Leadership decisiveness; crisis response capability; regulatory compliance; performance discipline; operational efficiency	"Our leaders' quick decision-making helped us stay ahead during the last oil price crash" (SS1, G1); "Their focus on efficiency and quality has built a strong reputation for us in the sector" (MM2, G2)
	Control as Constraint on Adaptation	Centralised decision-making; slow responsiveness; missed opportunities; bureaucratic delays	"Autocratic leadership slows problem-solving because everyone waits for approval from the top" (CT4, G2); "We often lose opportunities to respond fast to market changes" (JS1, G1)
	Fear-Based Control and Learning Barriers	Fear of sanctions; concealment of problems; lack of psychological safety; reactive posture	"Our top managers lead with fear rather than strategy, so people hide problems instead of reporting them" (JS3, G4); "Motivation comes from fear rather than genuine engagement" (CT2, G1)
	Innovation Constraints and Talent Loss	Risk aversion; resistance to innovation; lack of experimentation; talent attrition	"Innovation is not encouraged here, so we lag behind more dynamic competitors" (JS5, G2); "Those who crave innovation often leave for more flexible environments" (CT3, G4)
4. Role Modelling Imperative	Behavioural Modelling as Cultural Mechanism	Leaders as role models; behaviour over rhetoric; observation-based learning; signalling of norms	"Employees emulate what leaders do, not what they say" (JS1, G1); "Leaders must walk the talk—actions speak louder than words" (JS2, G1)
	Positive Reinforcement Through Leadership Behaviour	Recognition of effort; fairness; integrity; trust-building; motivation enhancement	"When leadership recognises effort, performance improves" (SS4, G3); "When leaders act with honesty, staff give their best without fear or favour" (JS1, G1)
	Negative Effects of Behavioural Misalignment	Favouritism; inconsistency; erosion of trust; disengagement; reduced morale	"When leadership favours a few and ignores others, morale and performance drop drastically" (CT1, G2); "Inconsistency kills momentum" (SS4, G3)

Appendix C. Joint Side-by-Side Matrix

Quantitative Finding	Qualitative Insight	Integrated Interpretation
LS → OR not significant (β = 0.124, p = 0.137)	"Most of our top managers have an autocratic style—decisions come from the top, and we just execute" (JS3, G1); "Leaders are too reactive—they wait for problems to escalate before taking action" (JS3, G2)	**Divergence** leadership matters, but its form suppresses direct resilience effects
LS → OP significant (β = 0.374, p < 0.001)	"Their focus on efficiency and quality has built a strong reputation for us in the sector" (MM2, G2); "Motivation comes from fear of sanctions, not from genuine engagement" (CT2, G1)	**Convergence** instrumental leadership directly drives performance outcomes
LS → OC significant (β = 0.539, p < 0.001)	"Employees emulate what leaders do, not what they say" (JS1, G1); "Leaders must walk the talk—actions speak louder than words" (JS2, G1)	**Convergence** leadership operates primarily through cultural embedding
OC → OR and OC → OP significant	"There's a strong hierarchy here—you rarely question leadership decisions" (JS2, G1); "We operate like a family; that unity keeps morale high during tough market periods" (CT1, G1)	**Convergence** culture is the core mechanism linking leadership to outcomes
Full mediation (resilience); partial mediation (performance)	"There's a culture of caution, which helps us avoid costly mistakes but also stifles innovation" (MM2, G2); "Autocratic leadership slows problem-solving because everyone waits for approval" (CT4, G2)	**Complementarity (Expansion)** qualitative data explain why mediation differs across outcomes
PSC moderates LS → OC (β = 0.187, p = 0.003)	"People hide problems instead of reporting them" (JS3, G4); "Feedback channels exist but aren't genuinely used" (JS2, G1)	**Convergence + Elaboration** psychological safety conditions whether leadership is internalised into culture
Stronger indirect effects at high PSC (IMM significant)	"Motivation comes from fear rather than genuine engagement" (CT2, G1); "It's not always safe to challenge decisions" (implicit across groups)	**Complementarity** low psychological safety attenuates the culture-mediated pathway