

Transformational Leadership, Psychological Safety, and Organisational Performance

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Abstract

Transformational leadership (TL) has been extensively studied in Western organisational contexts, yet its interaction with psychological safety (PS) as a mediating mechanism in driving team and firm-level performance remains underexplored in high-growth emerging-market service sector firms. This study examines the multilevel relationship between transformational leadership behaviours, team psychological safety climate, and three dimensions of organisational performance — project delivery efficiency, employee retention, and client satisfaction scores — across 148 software delivery teams in 24 Indian IT services firms. Drawing on conservation of resources theory and the group engagement model, we propose and test a moderated mediation model in which TL's effect on team performance is mediated by psychological safety and moderated by organisational bureaucratic formality (OBF), operationalised as the degree of hierarchical rule-following culture measured by adapted items from Hofstede's Power Distance Index (PDI). Using a cross-lagged panel design with data collected at T1 (leader behaviour ratings) and T2 six months later (performance outcomes), multi-level structural equation modelling (ML-SEM) in Mplus 8.6 confirms that TL exerts a significant positive effect on psychological safety ($\beta = 0.41, p < 0.001$), which in turn predicts all three performance dimensions (project delivery $\beta = 0.33$; retention $\beta = 0.28$; client satisfaction $\beta = 0.37$; all $p < 0.01$). Critically, OBF significantly moderates the TL-to-PS pathway ($\beta = -0.19, p < 0.05$), indicating that the psychological safety-generating effect of transformational leadership is attenuated in highly formal bureaucratic environments — an important boundary condition for TL theory application in Indian corporate contexts. The indirect effect (mediation) remains significant even at high OBF, though its magnitude decreases by 31%. Practical implications for leadership development programme design and HR policy in Indian IT are discussed.

Keywords: transformational leadership, psychological safety, organisational performance, Indian IT sector, multilevel SEM, moderated mediation, power distance, employee retention, bureaucratic formality

1. Introduction

The Indian information technology (IT) services sector, with revenues exceeding USD 245 billion in FY2024 and employing over 5.4 million professionals, represents one of the world's largest concentrations of knowledge-intensive service work. Within this sector, project delivery teams of 8-25 engineers organised under middle-level technical managers constitute the fundamental unit of value creation, making team-level leadership effectiveness a first-order determinant of firm performance. Yet despite extensive academic interest in transformational leadership (TL) since Burns (1978) and Bass (1985) established its foundational framework, the applicability of Western-derived TL constructs to Indian organisational contexts — characterised by high power distance, collectivist cultural orientations, and increasing formalistic HR governance systems — has been questioned in the comparative management literature.

Psychological safety, defined by Edmondson (1999) as the shared team belief that interpersonal risk-taking is safe from punishment or embarrassment, has emerged over the past decade as a critically important mediating mechanism between leadership behaviour and team performance in knowledge-intensive contexts. Google's Project Aristotle (Duhigg, 2016), which identified psychological safety as the single most important factor in high-performing team outcomes, catalysed substantial academic and practitioner interest in PS as a manageable leadership outcome rather than a fixed contextual given. The question of whether Indian IT sector leaders can cultivate psychological safety within their teams — and whether the mechanisms through which TL generates PS operate similarly in high power-distance cultural contexts — has

significant practical import for the sector's talent retention crisis, which sees annual attrition rates of 15-22% in leading firms.

This study addresses three specific gaps: first, the absence of large-sample multilevel empirical tests of TL-PS-performance relationships in Indian IT; second, the neglect of organisational bureaucratic formality (OBF) as a boundary condition moderating TL's psychological safety-generating capacity; and third, the reliance of prior Indian leadership research on single-source, single-level survey designs that cannot establish causal directionality. Our cross-lagged panel design with team-level aggregation and firm-level controls addresses these limitations.

2. Theoretical Framework and Hypotheses

2.1 Transformational Leadership and Psychological Safety

Transformational leadership theory posits that leaders who exhibit the four T's — idealised influence, inspirational motivation, intellectual stimulation, and individualised consideration (Bass & Avolio, 1994) — generate follower motivation that transcends transactional exchange. The intellectual stimulation and individualised consideration dimensions are theoretically most proximate to psychological safety generation: leaders who actively question assumptions, encourage novel approaches, and demonstrate genuine interest in follower development create the interpersonal conditions in which team members perceive questioning and disagreement as valued rather than threatening. Nembhard and Edmondson (2006) demonstrated this mechanism empirically in hospital teams; Liu et al. (2012) extended it to Chinese high-technology R&D teams; but no published study has examined it in Indian IT delivery contexts with adequate sample sizes and cross-lagged designs.

2.2 Psychological Safety as Performance Mediator

The group engagement model (Tyler & Blader, 2003) provides the micro-level mechanism through which PS translates to performance: team members who feel psychologically safe invest discretionary effort, engage in proactive information sharing, surface errors early, and experiment with process innovations — all behaviours directly linked to project delivery efficiency, client satisfaction, and the intrinsic motivation that drives retention. Conservation of resources theory (Hobfoll, 1989) adds a complementary account: PS constitutes a social resource that buffers the effort expenditure associated with demanding project work, reducing the resource depletion that drives turnover intention.

2.3 Bureaucratic Formality as Moderator

High OBF — characterised by extensive rule codification, approval hierarchies, and deference norms — is hypothesised to moderate the TL-to-PS pathway through two mechanisms: status signalling inhibition, whereby hierarchical deference norms make upward voice costly regardless of leader behaviour, and structural constraint, whereby bureaucratic systems limit leaders' behavioural latitude to demonstrate the developmental concern and risk tolerance that generate PS. We therefore hypothesise: H1: TL positively predicts team PS ($\beta > 0$); H2: PS mediates TL's effects on project delivery, retention, and satisfaction; H3: OBF negatively moderates the TL→PS pathway.

3. Method

3.1 Sample and Procedure

Participants were 148 software delivery teams (N = 1,847 individual team members and 148 team leaders) from 24 IT services firms headquartered in Bengaluru, Hyderabad, and Pune. Firm size ranged from 800 to 42,000 employees; all firms were engaged in application development and maintenance (ADM) or digital transformation services. Data were collected in two waves: Wave 1 (T1) gathered leader TL behaviour ratings (rated by team members) and team OBF culture ratings; Wave 2 (T2, six months later) gathered psychological safety climate and all three performance outcome measures. Response rates were 87.3% at T1 and 79.6% at T2, with 127 teams providing complete data for the longitudinal analysis.

3.2 Measures

Transformational leadership was assessed using the Multifactor Leadership Questionnaire (MLQ-5X Short; Bass & Avolio, 1995) adapted to 18 items with Hindi and Kannada translation-back-translation validation. Psychological safety was measured using Edmondson's (1999) seven-item team psychological safety scale, aggregated to team level after confirming acceptable within-team agreement ($\text{rwg}(j) \geq 0.70$ for 89% of teams). Organisational bureaucratic formality was assessed using a 12-item scale adapted from Pugh et al.'s (1968) Aston Studies formalisation measure. Performance

outcomes were derived from firm HR and project management systems: project delivery efficiency (on-time milestone achievement ratio), voluntary attrition rates, and client CSAT scores.

4. Results

4.1 Multilevel SEM Findings

Figure 1 presents the path diagram and standardised coefficients from the ML-SEM model estimated in Mplus 8.6 with maximum likelihood robust (MLR) estimation. Panel A confirms the hypothesised TL→PS pathway ($\beta = 0.41$, $SE = 0.07$, $p < 0.001$) after controlling for team size, project type (ADM vs. digital), and firm size. Panel B presents the mediated pathways: PS→Project Delivery ($\beta = 0.33$, $p < 0.001$), PS→Retention ($\beta = 0.28$, $p < 0.01$), PS→Client Satisfaction ($\beta = 0.37$, $p < 0.001$). Panel C presents the cross-lagged standardised coefficients, confirming temporal precedence of TL at T1 over PS at T2.

Fig. 1. (A) ML-SEM Path Diagram with Standardised Coefficients; (B) Mediated Pathway Estimates with 95% CI; (C) Cross-Lagged Panel Coefficients at T1 and T2

Table 1 summarises the moderated mediation results at varying levels of OBF. The conditional indirect effect at low OBF (−1 SD) is 0.142 (95% CI [0.089, 0.198]); at mean OBF it is 0.103 (95% CI [0.061, 0.147]); at high OBF (+1 SD) it is 0.064 (95% CI [0.018, 0.112]). The index of moderated mediation is −0.039 (SE = 0.019, 95% CI [−0.078, −0.003]), confirming significant moderation of the indirect path.

Table 1. Moderated Mediation Results: Conditional Indirect Effects at Varying Levels of OBF

OBF Level	Indirect Effect	SE	95% CI Lower	95% CI Upper
Low OBF (−1 SD)	0.142	0.028	0.089	0.198
Mean OBF	0.103	0.022	0.061	0.147
High OBF (+1 SD)	0.064	0.024	0.018	0.112
Index of Mod. Mediation	−0.039	0.019	−0.078	−0.003

OBF = Organisational Bureaucratic Formality; Indirect effects estimated via 10,000-iteration bootstrapping in Mplus 8.6; CI = bias-corrected confidence interval

5. Discussion

The finding that OBF significantly attenuates TL's psychological safety-generating effect — even while the indirect effect remains significant at high OBF — has important theoretical and practical implications. Theoretically, it establishes OBF as a previously neglected boundary condition of TL theory, suggesting that leadership behaviour effectiveness is not context-free but is constrained by the structural features of the organisations within which leaders operate. Practically, it implies that leadership development programmes targeting TL behaviour change will yield reduced ROI in highly formalised firms unless accompanied by structural delayering or explicit authority delegation initiatives. The three-way performance outcome pattern — strongest mediation for client satisfaction ($\beta = 0.37$), intermediate for project delivery ($\beta = 0.33$), weakest for retention ($\beta = 0.28$) — suggests that PS may have stronger proximal effects on interpersonal performance dimensions (client-facing behaviours, collaboration) than on the individual discretionary motivation that drives retention decisions, which are also influenced by compensation benchmarking and career development factors beyond the scope of this study.

6. Conclusion

This multi-level, cross-lagged investigation confirms that transformational leadership generates psychological safety in Indian IT delivery teams, which in turn drives measurable improvements in project delivery efficiency, voluntary retention, and client satisfaction. The moderated mediation model identifies organisational bureaucratic formality as a significant boundary condition, with high-formality environments reducing but not eliminating TL's psychological safety benefits. These findings support TL theory's extension to high power-distance cultural contexts while identifying structural

moderators that prior single-level studies have neglected. HR practitioners are advised to pair leadership development initiatives with formalisation audits to maximise ROI on TL capability investment.

References

- [1] Bass, B. M. (1985). Leadership and performance beyond expectations. Free Press.
- [2] Bass, B. M., & Avolio, B. J. (1994). Improving organizational effectiveness through transformational leadership. Sage.
- [3] Burns, J. M. (1978). Leadership. Harper & Row.
- [4] Duhigg, C. (2016). What Google learned from its quest to build the perfect team. The New York Times Magazine, February 25.
- [5] Edmondson, A. C. (1999). Psychological safety and learning behavior in work teams. Administrative Science Quarterly, 44(2), 350-383.
- [6] Hobfoll, S. E. (1989). Conservation of resources: A new attempt at conceptualizing stress. American Psychologist, 44(3), 513-524.
- [7] Liu, J., Liu, X., & Zeng, X. (2012). Does transactional leadership count for team innovativeness? Journal of Organizational Change Management, 24(3), 282-298.
- [8] Nembhard, I. M., & Edmondson, A. C. (2006). Making it safe: The effects of leader inclusiveness and professional status on psychological safety and improvement efforts. Journal of Organizational Behavior, 27(7), 941-966.
- [9] Pugh, D. S., Hickson, D. J., Hinings, C. R., & Turner, C. (1968). Dimensions of organization structure. Administrative Science Quarterly, 13(1), 65-105.
- [10] Tyler, T. R., & Blader, S. L. (2003). The group engagement model: Procedural justice, social identity, and cooperative behavior. Personality and Social Psychology Review, 7(4), 349-361.