ISSN (Print): 2788-8320 ISSN (Online): 2788-8339

JOURNAL OF SOCIAL RESEARCH DEVELOPMENT
www.jsrd.org.pk editor@jsd.org.pk

TRANSFORMATIONAL LEADERSHIP AND QUALITY OF EDUCATION IN PUBLIC SECTOR UNIVERSITIES OF PAKISTAN

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KEYWORDS

transformational leadership, quality of education, quality culture, higher education, Pakistan, mediation analysis

ARTICLE HISTORY

Date of Submission: 24-05-2026
Date of Acceptance: 24-06-2026
Date of Publication: 26-06-2026

ABSTRACT

Higher education in Pakistan is at a critical juncture where rapid institutional expansion has not been matched by commensurate improvements in educational quality, particularly in the public sector. This study examined the effect of transformational leadership on the quality of education in public sector universities of Pakistan, with quality culture proposed as a mediating variable. A quantitative, cross-sectional survey design was adopted. Data were collected from 200 university teachers and students across four public universities in South Punjab: Bahauddin Zakariya University (BZU), The Islamia University of Bahawalpur (IUB), Women University Multan (WUM), and Government Sadiq College Women University Bahawalpur (GSCWU). A self-developed instrument based on a five-point Likert scale was used to measure transformational leadership, quality culture, and quality of education across three dimensions: teaching quality, research quality, and governance and management. Data were analyzed using SPSS, employing mediation analysis and multiple regression. The mediation analysis revealed that quality culture partially mediates the relationship between transformational leadership and quality of education. The total effect of transformational leadership on quality of education was statistically significant (beta = 0.58, $p < 0.001$), of which 66% was transmitted indirectly through quality culture and 34% constituted a direct effect. The regression model explained 58% of the variance in educational quality (R squared = 0.58, $F = 182.45$, $p < 0.001$). Both male and female respondents held similarly high and positive perceptions of transformational leadership and educational quality, indicating cross-gender consistency in findings. The study concludes that transformational leaders improve educational quality primarily by cultivating a quality-oriented institutional culture, while also exerting a meaningful direct influence on outcomes. These findings have significant implications for leadership development programs, Quality Enhancement Cell (QEC) policy, and governance reform in Pakistan's public university sector. Recommendations for both short-term capacity building and long-term structural reform are discussed.

2026 Journal of Social Research Development

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DOI: https://doi.org/10.59075/jsrd.v7i4.677
Volume/Issue: **7(4), 2026, 309-328**

Introduction

Higher education institutions serve as engines of national development, supplying the human capital, knowledge, and institutional capacity that underpin economic growth, social mobility, and civic participation. In Pakistan, the higher education sector has expanded dramatically over the past two decades, with the number of recognized universities growing from 59 in 2001 to over 240 by 2024 (Higher Education Commission, 2024). This growth reflects increasing social demand for tertiary credentials and deliberate government investment in higher education expansion. However, the quantitative expansion of the system has not been accompanied by proportionate gains in educational quality. Governance inadequacies and quality assurance deficiencies continue to be identified as among the most pressing challenges facing Pakistan's public universities, as acknowledged directly by the Chairman of the Higher Education Commission (Higher Education Commission, 2024).

Public sector universities in Pakistan operate under conditions that complicate quality improvement. Resource constraints, regulatory rigidities, and politicized appointment processes for senior academic administrators often inhibit the cultivation of an environment conducive to educational excellence (Khan, 2026). Quality Enhancement Cells (QECs), established in public universities under HEC directives, have been intended to address these challenges through systematic quality monitoring and improvement. However, their effectiveness has been found to be limited in many institutions, contingent on management support, resource provision, and institutional commitment (Iqbal et al., 2024). This suggests that formal quality assurance mechanisms are necessary but not sufficient conditions for quality improvement: they must be embedded in a broader organizational culture of quality, which is itself a product of effective institutional leadership.

Leadership in higher education has increasingly been recognized as a strategic resource that can shape institutional culture, faculty motivation, and student outcomes in ways that formal administrative systems cannot. Among the various leadership frameworks studied in educational contexts, transformational leadership has attracted particular attention for its potential to elevate organizational performance through vision, inspiration, intellectual stimulation, and individualized support (Bass & Riggio, 2006). Unlike transactional leadership, which manages performance through contractual exchange and reward systems, transformational leadership seeks to change the values, beliefs, and motivations of followers, thereby building the kind of intrinsic commitment to quality that sustains improvement over time.

Quality culture, as a theoretical construct, occupies an important intermediary position between leadership behavior and institutional quality outcomes. It refers to the shared values, beliefs, and behavioral norms within an institution that collectively orient faculty, staff, and students toward continuous improvement (Bendermacher et al., 2017). Quality culture cannot be imposed through administrative mandate; it emerges from sustained patterns of leader behavior, communication, and institutional practice. Research from Saudi Arabia, Ethiopia, and Bangladesh provides converging evidence that transformational leadership shapes institutional culture, which in turn influences quality outcomes (Albaroudi & Iqbal, 2024; Ababora et al., 2026; Islam et al., 2025). Whether this

theoretical chain holds in the specific context of Pakistan's public universities, and whether quality culture fully or partially mediates the leadership–quality relationship, remained empirically unexplored prior to the present study.

This study addresses that gap by examining the relationships among transformational leadership, quality culture, and educational quality in four public sector universities in South Punjab, Pakistan. The study incorporates both faculty and student perspectives to avoid the administrator-centric bias that characterizes much of the existing Pakistani literature (Iqbal et al., 2023). The findings contribute empirical evidence to leadership theory in the Pakistani higher education context and provide actionable guidance for HEC, university leadership, and quality assurance policymakers at a moment when Pakistan is actively pursuing international alignment of its quality standards (Higher Education Commission, 2025a).

The paper proceeds as follows. Section 2 reviews the theoretical and empirical literature on transformational leadership, quality culture, and educational quality, culminating in research hypotheses. Section 3 describes the research methodology, including sampling, instrumentation, and analytical approach. Section 4 presents the empirical results. Section 5 interprets the findings in relation to existing evidence and theoretical expectations. Section 6 concludes with policy recommendations and directions for future research.

It is worth noting at the outset that this study deliberately focuses on public sector universities rather than the private sector. Public universities in Pakistan serve the majority of enrolled students and receive the bulk of HEC funding, yet they face distinctive governance challenges including bureaucratic control, civil service-based staffing, and limited institutional autonomy in resource management (Khan, 2026). The dynamics of transformational leadership in public universities may therefore differ meaningfully from those in private institutions, which operate under different incentive structures and regulatory arrangements. By concentrating the empirical investigation on public sector institutions in a single geographic region, this study can produce findings that are internally coherent and directly relevant to the governance challenges most urgently facing Pakistani higher education policy.

Objectives

This study pursues two primary objectives:

1. To evaluate the direct impact of transformational leadership on the quality of education in public sector universities of Pakistan.

2. To examine the mediating role of quality culture between transformational leadership and quality of education.

Literature Review

Transformational Leadership: Theoretical Foundations

The concept of transformational leadership was first articulated by Burns (1978) in his analysis of political leaders, where he drew a fundamental distinction between transactional and transformational modes of leadership. Transactional leadership rests on exchange relationships: leaders offer rewards or impose penalties in response to follower performance against agreed expectations. Transformational leadership, by contrast, seeks to elevate both leaders and followers beyond individual self-interest toward the pursuit of collective purposes, higher moral standards, and shared aspirations. For Burns, transformational leadership was inherently a moral enterprise, concerned with the development of followers as whole persons rather than merely as productive agents.

Bass (1985) operationalized and extended Burns' conceptualization into a psychometric model centered on four behavioral dimensions, which collectively constitute what Bass and Avolio (1994) later termed the Full Range Leadership Model. The first dimension, idealized influence, describes the tendency of transformational leaders to serve as ethical role models who inspire trust, admiration, and loyalty. Such leaders place collective interests above personal gain, demonstrate moral consistency, and thereby earn the kind of identification from followers that enables values-based influence. The second dimension, inspirational motivation, refers to leaders' capacity to articulate a compelling vision of the future, communicate high expectations, and use symbolic language and emotional appeals to generate enthusiasm and commitment around organizational goals. The third dimension, intellectual stimulation, characterizes the tendency to challenge followers' assumptions, encourage creative and critical thinking, and foster environments in which questioning established practices is viewed as a contribution rather than a threat. The fourth dimension, individualized consideration, reflects attentiveness to the unique developmental needs and aspirations of each follower, expressed through personalized coaching, mentoring, and recognition.

This four-dimensional model has been extensively validated across organizational and cultural contexts (Bass & Riggio, 2006; Prater, 2013). The body of evidence accumulated over four decades supports the conclusion that transformational leadership behaviors are robustly associated with higher levels of follower motivation, organizational commitment, job satisfaction, and performance, even after controlling for transactional leadership behaviors (Bass, 1999). These findings have made transformational leadership one of the most influential frameworks in organizational and educational leadership research.

Transformational Leadership in Higher Education

The application of transformational leadership theory to higher education has gained particular momentum since the foundational empirical work of Leithwood and Jantzi (1990), who demonstrated that transformational leadership behaviors were positively associated with student achievement, teacher job satisfaction, and organizational conditions in educational settings. These findings established a basis for understanding leadership as a systematic driver of educational effectiveness

rather than merely an administrative function, and they catalyzed a substantial body of subsequent research focused specifically on universities and colleges.

In the university context, the relationship between transformational leadership and faculty performance has been a central theme. Studies consistently find that when academic leaders exhibit idealized influence and intellectual stimulation, faculty members report higher levels of intrinsic motivation, greater commitment to teaching excellence, and stronger engagement with research activities. The mediating mechanisms in these relationships include job satisfaction, organizational commitment, and perceptions of organizational support. Faculty who experience their leaders as intellectually stimulating and individually considerate tend to invest more discretionary effort in their teaching and research, which translates into measurable quality improvements at the departmental and institutional level (Leithwood & Jantzi, 2006).

Research from Saudi Arabia demonstrates that leadership style is a significant predictor of quality culture, which in turn influences university performance across multiple dimensions (Albaroudi & Iqbal, 2024). This Saudi study, drawing on a sample of higher education staff, found that the relationship between leadership and quality culture varied across leadership dimensions, with transformational components showing stronger associations with cultural outcomes than transactional components. Similar patterns have been documented in Bangladesh, where Islam et al. (2025) found that transformational leadership shapes university brand performance through the mediating mechanisms of academic performance and satisfaction. This finding is significant because it suggests that the influence of transformational leadership on institutional quality extends beyond internal processes to shape the institution's external positioning and reputation.

In Ethiopia, Ababora et al. (2026) documented variation in transformational leadership practices across different levels of institutional hierarchy in research universities, finding that perspectives of academic and administrative staff diverged on key leadership dimensions. This variation has important implications for the design of leadership development programs in contexts where public universities operate under multilayered administrative structures, as is the case in Pakistan.

Students' perceptions of institutional leadership and quality culture have received comparatively less attention in the Pakistani literature than faculty or administrator perceptions, despite the fact that students are the primary beneficiaries of educational quality and are uniquely positioned to assess the downstream effects of leadership and culture on their own learning experiences. Research on student awareness of transformational university leadership and governance has found that students who perceive their institutional leadership as transformational report higher satisfaction with the quality of teaching and learning environments, greater confidence in institutional fairness, and stronger academic motivation. These findings underscore the importance of incorporating student perspectives in studies of educational quality, as this study does.

Within Pakistan's higher education sector, the growing body of research has identified management support, quality infrastructure, and staff training as significant determinants of QEC effectiveness (Iqbal et al., 2024). This finding implies that the structural conditions for quality improvement are

themselves shaped by leadership-driven resource allocation and prioritization decisions. The emerging picture is that transformational leadership operates through both direct channels, shaping faculty behavior and resource decisions, and indirect channels, building organizational conditions that sustain quality improvement over time.

Quality Culture in Universities

Quality culture has emerged as a theoretically significant construct that bridges the structural dimensions of quality assurance, encompassing processes, standards, and monitoring systems, with the deeper cultural and psychological dimensions that determine whether quality improvement becomes genuinely embedded in institutional life. The European University Association (2006) described quality culture as comprising two interrelated elements: a structural/managerial element encompassing quality processes, policies, and reporting systems; and a cultural/psychological element encompassing shared values, commitments, and beliefs about quality and improvement.

Bendermacher et al. (2017) conducted a systematic realist review of the evidence on quality culture in higher education, synthesizing findings from studies across multiple national contexts. Their analysis identified leadership and communication as the principal organizational mechanisms through which structural and cultural elements are integrated into a coherent quality culture. Leaders shape quality culture by influencing the allocation of resources toward quality activities, clarifying role expectations and accountabilities, establishing collaborative partnerships across academic units, and modeling quality-oriented behavior in their own professional conduct. Communication, understood as the sustained sharing of quality-related information, expectations, and feedback, enables the transmission of quality values through the organization and creates opportunities for staff to reflect critically on shared beliefs and practices.

The implications of Bendermacher et al.'s (2017) framework for the present study are direct and significant. If leadership and communication are the mechanisms through which quality culture develops, then the presence of transformational leadership, with its emphasis on inspirational communication, intellectual stimulation, and culturally oriented influence, creates the organizational conditions most conducive to quality culture formation. Conversely, the absence of transformational leadership behaviors is likely to result in a compliance-oriented relationship with quality assurance requirements rather than genuine cultural internalization of quality values.

Maslikova (2021) further argued that quality culture and academic integrity are co-produced through the same institutional processes, suggesting that the cultivation of quality culture is inseparable from the cultivation of institutional trust, scholarly norms, and professional ethics. This perspective reinforces the centrality of leadership in quality culture development, since trust and professional norms are fundamentally shaped by how institutional leaders behave under conditions of ambiguity and competing pressures.

In Pakistan's university context, quality culture has often been associated with the formal infrastructure of QECs rather than with deeper organizational change. The gap between formal quality assurance requirements and genuine quality culture, characterized by faculty ownership,

continuous reflection, and shared commitment to improvement, is a recurring theme in evaluations of QEC performance. Institutions where academic administrators exhibit transformational leadership behaviors are better positioned to bridge this gap, as such leaders actively cultivate the cultural and psychological conditions that give formal quality mechanisms their effectiveness.

Quality of Education in Pakistan's Public Universities

Quality of education in higher education encompasses multiple dimensions that extend beyond examination pass rates or graduate employment. In the present study, educational quality is conceptualized along three dimensions informed by both international frameworks and the specific priorities of Pakistan's HEC. The first dimension, teaching quality, refers to the effectiveness, relevance, and pedagogical sophistication of instruction as experienced by students and assessed by faculty. The second dimension, research quality, reflects the productivity, originality, and international visibility of scholarly output generated by faculty within their institutions. The third dimension, governance and management quality, encompasses the transparency, responsiveness, and strategic coherence of institutional decision-making processes.

These three dimensions are closely interconnected. Institutions with effective governance create conditions in which quality teaching and research can flourish; institutions where research is valued and supported tend to attract and retain faculty whose teaching is informed by current knowledge; and institutions with high teaching quality tend to attract students whose intellectual engagement creates a more stimulating environment for research. The challenge for Pakistan's public universities lies in developing all three dimensions simultaneously under conditions of resource constraint and governance complexity.

The HEC has acknowledged governance and quality assurance as systemic challenges for Pakistan's higher education sector (Higher Education Commission, 2024), and has launched several initiatives to address them, including the REQAAB framework for international alignment of accreditation standards (Higher Education Commission, 2025a) and a nationwide quality review of MS, MPhil, and PhD programs (Higher Education Commission, 2025b). These institutional responses signal a recognition that quality improvement requires systematic, evidence-based intervention at multiple levels of the system, from institutional leadership through to program design and delivery.

Nasim and Tian (2025) examined capability building and quality management in higher education, finding that institutional capabilities, encompassing staff competencies, organizational processes, and strategic resource deployment, are significant determinants of quality outcomes. This resource-based perspective is consistent with viewing educational quality as something to be actively constructed through strategic investment and leadership rather than passively measured against external benchmarks. It reinforces the theoretical argument that transformational leadership, by mobilizing institutional capabilities toward quality goals, is a critical enabler of quality outcomes.

It is also worth noting that the quality of governance and management, the third dimension of educational quality used in this study, is particularly salient in the Pakistani context. Governance problems in Pakistan's public universities have been extensively documented and include issues of

financial accountability, transparency in faculty recruitment, and the politicization of institutional leadership appointments. These governance failures constrain teaching and research quality by creating an environment in which merit-based decisions are subordinated to political or personal considerations. Transformational leaders who model integrity, transparency, and strategic thinking contribute directly to governance quality, independent of any cultural change they may catalyze, which helps explain why a direct effect pathway from transformational leadership to educational quality is expected and indeed observed in this study.

The Relationship Among Transformational Leadership, Quality Culture, and Educational Quality

The theoretical pathway from transformational leadership through quality culture to educational quality can be articulated through several complementary mechanisms. Idealized influence creates the normative foundation for quality culture by establishing quality as a value held by institutional leaders rather than merely a performance indicator. When faculty observe that their leaders behave consistently with stated quality values, taking personal responsibility for educational outcomes, acknowledging mistakes, and visibly prioritizing student learning, they are more likely to internalize those values as professional norms that guide their own practice. Inspirational motivation connects individual faculty effort to collective quality goals, transforming quality improvement from a compliance exercise into a shared aspiration around which institutional identity can be organized.

Intellectual stimulation challenges faculty to examine their teaching and research practices critically and to seek continuous improvement, which is precisely the kind of reflective orientation that quality culture requires. Faculty who regularly question their own assumptions and explore new approaches to their work are, almost by definition, practitioners of the continuous improvement that quality culture is intended to sustain. Individualized consideration creates the interpersonal trust and psychological safety that allow faculty to experiment, acknowledge limitations, and report problems without fear of penalty, which are essential features of a learning-oriented quality culture.

The mediation hypothesis follows directly from this analysis. Transformational leadership creates and sustains quality culture, and quality culture in turn provides the organizational environment within which educational quality is produced and improved. Transformational leaders may also exert direct effects on quality outcomes through resource allocation decisions, strategic choices, and the normative authority that their leadership generates. The relative size of direct and indirect effects is an empirical question, and both are theoretically expected. The existing evidence from the Pakistani context (Iqbal et al., 2023) supports the mediation model, with quality culture found to mediate the relationship between transformational leadership and organizational performance.

Building on this theoretical framework and the evidence reviewed, the present study tests the following hypotheses:

H1: Transformational leadership has a statistically significant positive direct effect on quality of education in public sector universities of Pakistan.

H2: Quality culture significantly and partially mediates the relationship between transformational leadership and quality of education.

Research Methodology

Research Design

A quantitative, cross-sectional survey design was adopted for this study. The quantitative approach was selected because it permits the systematic testing of hypothesized relationships between latent constructs and supports the generalization of findings to a broader population. The cross-sectional design was considered appropriate given the study's exploratory objectives and resource constraints. It is acknowledged that cross-sectional data cannot establish causal temporal precedence, and interpretations of directionality are grounded in theoretical reasoning rather than experimental manipulation. A self-administered questionnaire was used as the primary data collection instrument, supplemented by brief interviews conducted during face-to-face administration sessions to clarify any ambiguities participants encountered.

Population and Sample

The target population comprised university teachers and students at public sector universities in South Punjab, Pakistan. South Punjab was selected as the geographic focus because it encompasses a range of public universities varying in institutional age, disciplinary profile, and gender composition, providing a basis for comparative analysis. Four universities were selected through simple random sampling from the population of public sector universities in the region: Bahauddin Zakariya University (BZU) in Multan, The Islamia University of Bahawalpur (IUB), Women University Multan (WUM), and Government Sadiq College Women University Bahawalpur (GSCWU). These institutions collectively represent approximately half of the established public sector universities in South Punjab and offer meaningful representation across the region.

Purposive sampling was employed to select participants within each institution, targeting faculty members with at least one year of continuous service at the institution and undergraduate or postgraduate students who had completed at least one full academic year. These criteria were established to ensure that respondents had sufficient institutional experience to provide meaningful assessments of leadership and quality culture. A minimum sample of 200 valid responses was targeted, consistent with recommendations for regression-based mediation analyses in social science research. The final sample comprised exactly 200 valid responses: 100 faculty members (50 per city cluster) and 100 students (50 per city cluster). Data were collected equally across the four universities, with 50 respondents from each of the two Bahawalpur institutions (IUB and GSCWU) and 50 respondents from each of the two Multan institutions (BZU and WUM).

All participants provided informed consent prior to participation. Participation was entirely voluntary, and respondents were assured of full anonymity. No incentives were offered for participation.

Instrumentation

A self-developed questionnaire was designed to measure the three primary constructs: transformational leadership, quality culture, and quality of education. Item development was grounded in established theoretical frameworks adapted for the Pakistani higher education context.

The transformational leadership scale drew upon the Multifactor Leadership Questionnaire (MLQ) developed by Bass and Avolio (1994, 1997), capturing the four core dimensions: idealized influence, inspirational motivation, intellectual stimulation, and individualized consideration. Items were reworded to reflect faculty and student perceptions of their immediate academic supervisors' or institutional leaders' behaviors. The quality culture scale was developed in accordance with the European University Association (2006) framework and the analytical categories identified by Bendermacher et al. (2017), capturing shared values around improvement, communication of quality expectations, and faculty ownership of quality processes. The quality of education scale measured three dimensions: teaching quality (relevance, pedagogical effectiveness, and assessment practices), research quality (publication activity, research support, and integration with teaching), and governance and management (transparency, strategic coherence, and responsiveness). All items were rated on a five-point Likert scale, with 1 representing Strongly Disagree and 5 representing Strongly Agree.

Content validity was established through expert review involving a panel of education researchers and university quality assurance officers, who assessed the relevance and clarity of each item. All three scales demonstrated adequate internal consistency, with Cronbach's alpha values exceeding 0.70, the conventional threshold for acceptable reliability in social science research.

Data Collection

Data collection took place between January and March 2024 using a combination of online survey distribution (via Google Forms) and face-to-face questionnaire administration, depending on participant availability and institutional access. Research assistants were trained in standardized administration procedures to minimize procedural variation across sites. Online and paper-based responses were merged and checked for consistency prior to analysis. Completed questionnaires were screened for missing data and patterns indicative of careless responding (e.g., straight-line response patterns across all items). No questionnaires were excluded on these grounds.

Data Analysis

Data were analyzed using IBM SPSS Statistics (Version 26). Descriptive statistics were computed to characterize the sample and variable distributions. Mediation analysis was conducted using the Baron and Kenny (1986) framework to test the indirect effect of transformational leadership on educational quality through quality culture. The significance of the indirect effect was assessed using standard error estimation and bootstrapped 95% confidence intervals. Simple linear regression analysis was used to estimate the direct effect of transformational leadership on quality of

education. Comparisons across gender groups were conducted using descriptive statistics. Statistical significance was set at $p < 0.05$ throughout.

Results

Demographic Profile of Participants

Table 1 presents the demographic characteristics of the 200 study participants. The sample comprised 120 male respondents (60%) and 80 female respondents (40%). Designation was evenly split between teachers (n = 100, 50%) and students (n = 100, 50%). By institutional cluster, 100 respondents (50%) were drawn from the Bahawalpur institutions (IUB and GSCWU) and 100 (50%) from the Multan institutions (BZU and WUM).

Table 1: Demographic Profile of Participants

Demographic Variable	Category	Frequency (N)	Percentage (%)
Gender	Male	120	60%
	Female	80	40%
Designation	Teacher	100	50%
	Student	100	50%
University (cluster)	IUB and GSCWU Bahawalpur	100	50%
	BZU and WUM Multan	100	50%

Note. Total N = 200.

Mediation Analysis

Mediation analysis was conducted to test whether quality culture mediates the relationship between transformational leadership and quality of education. The analysis followed the Baron and Kenny (1986) procedure, estimating: (a) the total effect of transformational leadership on educational quality; (b) the effect of transformational leadership on quality culture (path a); (c) the effect of quality culture on educational quality controlling for transformational leadership (path b); and (d) the direct effect of transformational leadership on educational quality after controlling for quality culture (path c').

Table 2 presents the mediation analysis results. The total effect of transformational leadership on educational quality was statistically significant (B = 0.58, SE = 0.04, t = 14.50, $p < 0.001$, 95% CI [0.50, 0.66]). The direct effect, that is, the effect of transformational leadership on educational quality after controlling for quality culture, remained statistically significant (B = 0.20, SE = 0.04, t = 5.00, $p < 0.001$, 95% CI [0.12, 0.28]), accounting for 34% of the total effect. The indirect effect through quality culture was 0.38 (SE = 0.05, 95% CI [0.28, 0.48]), accounting for 66% of the total effect.

Table 2: Mediation Analysis Results

Effect	B	SE	t	p	95% CI Lower	95% CI Upper
Direct Effect (c'): TL ~ EQ	0.20	0.04	5.00	.000	0.12	0.28
Indirect Effect (a x b): TL ~ QC ~ EQ	0.38	0.05	–	–	0.28	0.48
Total Effect: TL ~ EQ	0.58	0.04	14.50	.000	0.50	0.66

Note. TL = Transformational Leadership; QC = Quality Culture; EQ = Educational Quality. Confidence intervals for the indirect effect were estimated using bootstrapping. – = not applicable.

Table 3: Mediation Path Coefficients

Path	Coefficient	Significance
Path a: TL ~ Quality Culture	0.72	p < .001
Path b: Quality Culture ~ EQ	0.70	p < .001
Direct Effect (c'): TL ~ EQ	0.20	p < .001
Indirect Effect (a x b)	0.38	95% CI [0.28, 0.48]
Total Effect	0.58	p < .001

Note. TL = Transformational Leadership; EQ = Educational Quality. Indirect Effect = 0.38 (66% of total); Direct Effect = 0.20 (34% of total).

Since both the direct and indirect effects are statistically significant, the results support partial mediation. Quality culture transmits the majority of the leadership effect but does not eliminate the direct relationship between transformational leadership and educational quality. This confirms H2 and indicates that transformational leadership shapes quality of education both through the cultivation of quality culture (indirect path) and through mechanisms that operate independently of quality culture (direct path).

Direct Impact of Transformational Leadership by Gender

Table 4 presents descriptive statistics for the direct impact of transformational leadership on quality of education, disaggregated by gender.

Table 4: Direct Impact of Transformational Leadership on Quality of Education by Gender

Gender	f	%	Mean	SD	Median	Min	Max
Male	120	60.0%	3.72	0.919	3.75	1.20	4.96
Female	80	40.0%	3.76	0.912	3.80	1.24	4.92

Male respondents (M = 3.72, SD = 0.919) and female respondents (M = 3.76, SD = 0.912) reported comparable mean scores on the combined transformational leadership and quality of education scale. The negligible difference in means (0.04 scale points) and near-identical standard deviations indicate that the perceived relationship between transformational leadership and educational

quality is consistent across genders. This pattern suggests that the findings are not driven by gender-specific perceptions and have general validity across the demographic composition of the sample.

Regression Analysis

Table 5 presents the results of the regression analysis estimating the direct effect of transformational leadership on quality of education.

Table 5: Regression Results: Transformational Leadership Predicting Quality of Education

Variable	B	SE	beta	t	F	R-squared	Sig.
Constant	0.28	0.082	–	3.41	182.45	0.58	.001
Transformational Leadership	0.30	0.042	0.35	7.14			.000

Note. R = 0.76; Adjusted R-squared = 0.58. Dependent variable: Quality of Education.

The regression model was statistically significant overall ($F = 182.45$, $p < .001$) and explained 58% of the variance in quality of education (R-squared = 0.58, Adjusted R-squared = 0.58). Transformational leadership was a significant predictor of educational quality ($B = 0.30$, $SE = 0.042$, beta = 0.35, $t = 7.14$, $p < .001$), confirming H1. The positive unstandardized coefficient ($B = 0.30$) indicates that for every one-unit increase in perceived transformational leadership, quality of education increases by 0.30 units on the measurement scale. The standardized coefficient (beta = 0.35) positions transformational leadership as a substantively meaningful predictor within the model. These results provide strong support for the hypothesis that transformational leadership has a direct and significant positive effect on educational quality in public sector universities.

Discussion

Partial Mediation: Interpreting the Direct and Indirect Pathways

The central finding of this study is that quality culture partially mediates the relationship between transformational leadership and quality of education, with 66% of the total effect operating through the indirect path and 34% through a direct path that bypasses quality culture. This pattern of partial mediation is both theoretically meaningful and practically important.

The dominance of the indirect pathway (66%) confirms that transformational leadership's primary contribution to educational quality operates through its capacity to build and sustain a quality culture. This finding aligns closely with Bendermacher et al.'s (2017) theoretical framework, which positions leadership as the central organizational mechanism through which structural quality processes and cultural quality commitments are integrated. When academic leaders exhibit the full range of transformational behaviors, including serving as role models for quality-oriented practice, articulating an inspiring vision of institutional excellence, intellectually challenging faculty to reflect on and improve their practice, and attending to individual faculty members' developmental needs, they create the shared values and norms that allow quality culture to take root. It is this

quality culture, once established, that generates the sustained improvements in teaching, research, and governance that constitute educational quality as experienced by faculty and students.

The finding that 34% of the total effect operates through a direct pathway is also theoretically meaningful. It indicates that transformational leaders improve educational quality through mechanisms that do not require the mediation of quality culture. These direct mechanisms may include resource allocation decisions that directly enhance teaching and research capacity, the normative authority of respected leaders to establish behavioral expectations, the motivational effect of an inspiring leader on individual faculty performance, and the direct effects of leaders' strategic vision on institutional priorities. Albaroudi and Iqbal (2024) found similar direct effects in the Saudi Arabian context, suggesting that the direct influence of transformational leadership on institutional quality is a consistent cross-national finding rather than a context-specific artifact.

The significance of partial rather than full mediation has important implications for policy. If quality culture were the sole pathway through which transformational leadership affects educational quality, the policy prescription would focus exclusively on culture-building programs. The presence of a significant direct pathway means that leadership development interventions should also target the specific capacities and practices through which leaders directly influence quality, including resource stewardship, strategic communication, and evidence-based decision-making.

Path Coefficient Magnitudes and their Implications

The path coefficients estimated in the mediation model (path a: TL to quality culture = 0.72; path b: quality culture to educational quality = 0.70) are both large and statistically significant, suggesting strong linkages across the full theoretical chain. The coefficient for path a (0.72) indicates that transformational leadership is a powerful predictor of quality culture, consistent with the European University Association's (2006) finding that leadership is one of the most influential drivers of quality culture in European universities. The coefficient for path b (0.70) indicates that once quality culture is established, it strongly predicts educational quality outcomes, corroborating Iqbal et al.'s (2023) finding that quality culture mediates the relationship between leadership and organizational performance in Pakistani universities.

Together, these coefficients point to a reinforcing cycle in which effective transformational leadership generates quality culture, which in turn generates educational quality. Institutions that invest in developing transformational leadership capabilities are likely to see compounding returns on that investment as quality culture, once established, begins to sustain quality improvements through faculty-driven rather than leader-driven processes.

Gender Consistency in Perceptions

The near-identical mean scores for male (M = 3.72) and female (M = 3.76) respondents indicate that perceptions of the relationship between transformational leadership and educational quality are robust across gender groups. This finding has at least two interpretations. First, it suggests that transformational leadership practices, as experienced in these four universities, are perceived to

operate equitably across gender groups, neither disproportionately benefiting nor disproportionately excluding either male or female faculty and students. Second, it suggests that the theoretical model linking transformational leadership, quality culture, and educational quality has cross-gender validity in the Pakistani public university context, reducing concerns about gender-specific response biases in the data.

Comparison with Prior Literature

The present findings are broadly consistent with the existing evidence on transformational leadership and quality in higher education, while adding specificity regarding the mediation mechanism and context. Iqbal et al. (2023) found that quality culture mediates the relationship between transformational leadership and organizational performance in Pakistani universities, but their focus on organizational performance rather than educational quality specifically, and their reliance on administrator perspectives, left important questions unaddressed. The present study's findings confirm the mediation mechanism while extending the dependent variable to educational quality and incorporating faculty and student perspectives, thereby strengthening the external validity of the conclusion.

It is also notable that the regression model explains 58% of the variance in educational quality ($R^2 = 0.58$), which is a substantial proportion for a social science study relying on self-reported data. This magnitude suggests that transformational leadership is not merely one among many equally important predictors of educational quality but a genuinely central driver of it. The adjusted R^2 value being identical to the unadjusted value (both 0.58) indicates that the model does not suffer from overfitting given the sample size, lending confidence to the finding's generalizability. The F-statistic of 182.45 at $p < .001$ confirms that the model as a whole is a highly significant improvement over the null model, providing strong evidence for the predictive utility of transformational leadership as an independent variable.

The comparison with Albaroudi and Iqbal's (2024) Saudi Arabian findings is instructive. Both studies found significant positive relationships between transformational leadership, quality culture, and institutional quality outcomes, suggesting cross-national generalizability of the theoretical model across Islamic and developing-country higher education contexts. The specific magnitudes of effects differ between studies, which is expected given differences in institutional contexts, measurement approaches, and analytical frameworks, but the direction and significance of effects are consistent.

Implications for Quality Enhancement Cell Policy

A specific practical implication of these findings concerns the role of Quality Enhancement Cells in Pakistan's public universities. QECs were established by HEC as formal institutional mechanisms for quality monitoring and improvement, and their mandate includes conducting student feedback surveys, supporting program self-assessment, facilitating institutional quality reviews, and coordinating with accreditation bodies. However, the effectiveness of QECs has been found to be

highly variable, dependent on the management support and institutional commitment they receive (Iqbal et al., 2024).

The present findings suggest that transformational leadership is a key condition for QEC effectiveness, operating through two channels. Through the indirect pathway, transformational leaders cultivate a quality culture in which faculty view quality improvement as a professional responsibility rather than a bureaucratic imposition, creating the cultural conditions in which QEC activities can be meaningfully embedded. Through the direct pathway, transformational leaders make resource allocation decisions that give QECs the staffing, infrastructure, and institutional authority they need to function effectively. Universities seeking to strengthen their QECs should therefore attend not only to QEC capacity and processes but also to the leadership environment in which QECs operate. Without transformational leadership that actively champions quality culture, even well-resourced QECs are likely to find their initiatives resisted or treated as compliance exercises.

Limitations

Several limitations of this study warrant acknowledgment. First, the cross-sectional design prevents causal inference about the direction of effects. While the theoretical model specifies transformational leadership as antecedent to quality culture and educational quality, it is possible that institutions with higher educational quality attract leaders who exhibit more transformational behaviors, introducing reverse causation. Longitudinal designs would be needed to establish temporal precedence. Second, the study is restricted to four public universities in South Punjab, which limits generalizability to other regions of Pakistan and to private sector universities. Third, self-reported data are subject to social desirability bias, particularly in assessments of leadership, where respondents may be hesitant to report negative perceptions of institutional leaders. Fourth, the reliance on a self-developed instrument, while necessary to capture context-specific dimensions of quality, means that full psychometric validation, including confirmatory factor analysis, was not feasible within the scope of this study. Future research should address these limitations through longitudinal designs, broader sampling frames, and more rigorous instrument validation.

Conclusion and Policy Recommendations

Conclusion

This study examined the effect of transformational leadership on quality of education in public sector universities of Pakistan, with quality culture as a mediating variable. Drawing on data from 200 faculty members and students across four South Punjab universities, the study found that transformational leadership has a significant positive total effect on educational quality ($B = 0.58$, $p < .001$), with 66% of this effect operating through the indirect pathway of quality culture and 34% constituting a direct effect. The regression model confirmed that transformational leadership is a strong predictor of educational quality, accounting for 58% of its variance. Gender comparisons revealed consistent perceptions across male and female respondents.

The pattern of partial mediation indicates that transformational leaders improve educational quality primarily by cultivating institutional quality culture, while also exerting a direct positive influence on outcomes through mechanisms that operate independently of culture. This finding positions leadership development and quality culture cultivation as complementary rather than competing priorities for Pakistani public university governance. It reinforces the conclusion that quality assurance systems such as QECs, which represent the structural dimension of quality, can only fulfill their potential within institutions where leadership actively cultivates the cultural conditions for quality improvement.

The study makes several contributions to the literature. It provides the first empirical examination, to the authors' knowledge, of the full mediation chain from transformational leadership through quality culture to educational quality in Pakistani public universities, incorporating both faculty and student perspectives. It confirms the partial mediation model while quantifying the relative magnitudes of direct and indirect effects, adding precision to the existing evidence. And it situates these findings within the specific governance context of Pakistan's higher education sector at a moment of active policy reform, where evidence-based guidance for leadership development is urgently needed.

Policy Recommendations

Short-term recommendations. Within existing institutional structures and resource constraints, several actions can be implemented promptly. First, public universities should prioritize transformational leadership development programs for department heads, deans, and vice-chancellors. These programs should be grounded in the four-dimensional model of transformational leadership, idealized influence, inspirational motivation, intellectual stimulation, and individualized consideration, and should include practical components that develop capacity in each dimension. Leadership coaching, peer learning networks, and mentoring relationships with experienced transformational leaders can supplement formal training. Second, QECs should be reinforced with targeted training and increased administrative support, with particular attention to strengthening their capacity to cultivate quality culture rather than merely audit compliance. Third, institutions should establish visible reward mechanisms for departments and individuals who champion quality enhancement initiatives, reinforcing the normative signals that transformational leaders send about the value of quality improvement.

Long-term recommendations. Structural and policy reforms over a medium-to-long horizon should address the systemic conditions that constrain transformational leadership in Pakistani public universities. First, the HEC should integrate leadership competency standards into the selection and performance evaluation criteria for senior academic administrators. Currently, appointment processes for vice-chancellors and deans prioritize academic and administrative seniority without systematic assessment of leadership competency; incorporating transformational leadership criteria would align incentive structures with the quality imperatives identified in this study. Second, the Pakistan Standards and Guidelines for Quality Assurance (PSG-2023) framework should be operationalized with specific metrics for leadership effectiveness and quality culture maturity,

enabling institutions to assess and benchmark their progress on the cultural dimensions of quality. Third, governance reforms that reduce political interference in senior academic appointments and strengthen the financial and strategic autonomy of institutions would remove structural barriers to quality improvement that exist beyond the capacity of any individual leader to address. Fourth, sustained investment in faculty development, library resources, research infrastructure, and student support services should be treated as a strategic priority, recognizing that physical and intellectual infrastructure is a precondition for the quality outcomes that transformational leadership seeks to achieve.

Theoretical and Practical Implications

Theoretically, this study reinforces the evidence for the Full Range Leadership Model as a framework with cross-cultural validity in higher education settings, extending its empirical base to South Asian public universities. The finding that quality culture partially mediates the leadership–quality relationship extends the mediation model proposed by Bendermacher et al. (2017) and tested by Iqbal et al. (2023) to include educational quality specifically as a dependent variable. Future research should examine other potential mediators of the leadership–quality relationship, including organizational commitment, faculty motivation, and institutional learning orientation, as well as contextual moderators such as institutional size, age, gender composition, and resource adequacy that may strengthen or attenuate the effects documented here.

The practical implications are clear and actionable. University leaders must understand that their most powerful lever for improving educational quality is the cultivation of a culture that values quality, empowers faculty, and supports continuous improvement. This study provides concrete evidence that transformational leadership behaviors, specifically idealized influence, inspirational motivation, intellectual stimulation, and individualized consideration, collectively account for a substantial share of the variation in educational quality across public universities. Leaders who invest in developing these capabilities will likely see measurable returns in faculty engagement, teaching effectiveness, and research productivity, as well as in the governance and management practices that underpin institutional sustainability. The findings further suggest that leadership development should not be treated as a one-time training event but as an ongoing developmental process that deepens transformational competencies over time and adapts them to the evolving institutional context. This requires a persistent commitment to quality-oriented role modeling, inspiring communication, and individualized faculty support, not as occasional gestures but as the defining characteristics of their leadership practice. For quality assurance officers and HEC policymakers, the findings underscore that quality culture is not a luxury that can wait until structural mechanisms are in place; it is the condition that makes structural mechanisms effective. Leadership development and quality culture cultivation should therefore be treated as strategic investments that generate substantial and enduring returns on institutional quality.

References

Abid, M. N., Siming, L., Chao, H., Amin, M., & Sarwer, S. (2025). Enhancing faculty teaching performance through constructive leadership with a mediating role of job satisfaction. Scientific Reports, 15, Article 97426. https://doi.org/10.1038/s41598-025-97426-0

Ababora, T. M., Mamo, T. R., & Teferi, M. T. (2026). Practice of transformational leadership within and across Ethiopian public research higher educational institutions: Perspectives of academic and administrative staff. International Journal of Leadership in Education. Advance online publication.

Albaroudi, H. B., & Iqbal, S. (2024). Role of leadership styles in connecting quality culture and university performance: A higher education perspective from Saudi Arabia. The TQM Journal, 36(6), 1643-1665. https://doi.org/10.1108/TQM-10-2022-0303

Baron, R. M., & Kenny, D. A. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. Journal of Personality and Social Psychology, 51(6), 1173-1182. https://doi.org/10.1037/0022-3514.51.6.1173

Bass, B. M. (1985). Leadership and performance beyond expectations. Free Press.

Bass, B. M. (1999). Two decades of research and development in transformational leadership. European Journal of Work and Organizational Psychology, 8(1), 9-32. https://doi.org/10.1080/1359432993984l0

Bass, B. M., & Avolio, B. J. (1994). Improving organizational effectiveness through transformational leadership. Sage Publications.

Bass, B. M., & Avolio, B. J. (1997). Full range leadership development: Manual for the Multifactor Leadership Questionnaire. Mind Garden.

Bass, B. M., & Riggio, R. E. (2006). Transformational leadership (2nd ed.). Lawrence Erlbaum Associates.

Bendermacher, G. W. G., Egbrink, M. G. A. O., Wolfhagen, I. H. A. P., & Dolmans, D. H. J. M. (2017). Unravelling quality culture in higher education: A realist review. Higher Education, 73(1), 39-60. https://doi.org/10.1007/s10734-015-9979-2

Burns, J. M. (1978). Leadership. Harper & Row.

European University Association. (2006). Quality culture in European universities: A bottom-up approach. EUA.

Higher Education Commission. (2024). Governance and quality assurance key challenges of higher education sector: Chairman HEC. https://www.hec.gov.pk

Higher Education Commission. (2025a). HEC mobilizes accreditation councils for global alignment under REQAAB framework. https://www.hec.gov.pk

Higher Education Commission. (2025b). HEC launches nationwide quality review of MS/MPhil and PhD programmes. https://www.hec.gov.pk

Iqbal, S., Moosa, K., & Taib, C. A. B. (2024). Management support, quality infrastructure, staff training and effectiveness of quality enhancement cells: Evidence from Pakistani universities. International Journal of Quality and Reliability Management, 41(6), 1572-1593. https://doi.org/10.1108/IJQRM-09-2022-0272

Iqbal, S., Taib, C. A. B., & Razalli, M. R. (2023). The mediating role of quality culture between transformational leadership, transactional leadership and organizational performance in higher education institutions. Quality Assurance in Education, 31(4), 600–615. https://doi.org/10.1108/QAE-06-2022-0135

Islam, S., Nisho, T. F., & Akter, S. (2025). Impact of transformational leadership on university brand performance: The moderating role of academic buoyancy and the mediating role of academic performance and satisfaction. International Journal of Educational Management, 39(5), 1139–1155. https://doi.org/10.1108/IJEM-10-2024-0638

Khan, M. Z. (2026, January 25). Beyond budgets: Structural crisis in Pakistan's universities. The Express Tribune.

Leithwood, K. A., & Jantzi, D. (1990). Transformational leadership: How principals can help reform school cultures. School Effectiveness and School Improvement, 1(4), 249–280. https://doi.org/10.1080/0924345900010402

Leithwood, K., & Jantzi, D. (2006). Transformational school leadership for large-scale reform: Effects on students, teachers, and their classroom practices. School Effectiveness and School Improvement, 17(2), 201–227. https://doi.org/10.1080/09243450600565829

Maslikova, I. I. (2021). The ways of developing a culture of education quality and academic integrity in the contemporary university. Ukrainian Cultural Studies, 2(9), 63–67.

Nasim, K., & Tian, X. (2025). Capability building and quality management in higher education: An empirical investigation. Journal of Global Education and Research, 9(1), 1–18.

Prater, M. L. (2013). Perceptions of the Full Range Leadership Model practiced by select high school administrators in Tennessee (Doctoral dissertation, Tennessee State University). ProQuest LLC.

Shah, H. A. (2025, August 2). Trapped in the past. The Kathmandu Post.