The Role of Transformational Leadership in Strengthening Internal Quality Assurance Systems in Higher Education: The Mediating Role of Quality Culture

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Abstract

Higher education institutions in Indonesia face increasing demands for accountability and quality enhancement, requiring effective internal quality assurance systems (IQAS) supported by strong leadership and culture. Despite the implementation of formal policies, many institutions struggle to internalize quality values, leading to a gap between compliance and genuine improvement. This study aims to examine how transformational leadership strengthens IQAS directly and indirectly through the mediating role of quality culture. A quantitative explanatory design was employed using a cross-sectional survey of 150 lecturers and academic staff at the Muslim University of Buton, Southeast Sulawesi Province. Data were collected through a 7-point Likert-scale questionnaire and analyzed using SmartPLS 4 to test both measurement and structural models. The results demonstrate that transformational leadership significantly influences quality culture ($\beta = 0.530$, $p < 0.001$) and IQAS ($\beta = 0.191$, $p = 0.013$), while quality culture also has a strong positive effect on IQAS ($\beta = 0.510$, $p < 0.001$). The mediation analysis reveals a partial indirect effect ($\beta = 0.269$, $p < 0.001$), indicating that leadership impacts IQAS both behaviorally and culturally. The model explains 30.3% of the variance in quality culture and 38.9% in IQAS, confirming moderate predictive power. These findings highlight that transformational leadership fosters trust, shared commitment, and continuous improvement—forming the foundation of effective internal quality systems. Theoretically, the study extends transformational leadership and quality assurance frameworks through cultural mediation, while practically, it guides higher education leaders in embedding quality as a collective institutional value.

1. Introduction

In recent years, higher education institutions have faced increasing pressure to maintain competitiveness and accountability in the global education landscape. In Indonesia, this challenge has been addressed through the mandatory implementation of the *Internal Quality Assurance System* (IQAS), or *Sistem Penjaminan Mutu Internal (SPMI)*, as a means to ensure continuous improvement and institutional sustainability (Ministry of Education

and Culture, 2020). However, despite formal compliance, many institutions still struggle to internalize the principles of quality assurance into their daily practices. The gap between formal quality systems and organizational culture often results in procedural implementation rather than genuine transformation.

Leadership has emerged as a central factor in bridging this gap. Among various leadership paradigms, transformational leadership is considered the most effective in promoting change and innovation. It emphasizes vision, inspiration, and individualized support encouraging followers to achieve goals beyond their self-interest while fostering collective commitment (Bass & Avolio, 1994; Bass, 1999). Within the context of higher education, transformational leaders are expected to play a vital role in cultivating shared values that support continuous improvement, professional development, and institutional excellence (Nguni, Sleegers, & Denessen, 2006). Nevertheless, leadership alone may not be sufficient to ensure successful quality assurance. It must be embedded within an environment that encourages shared responsibility, collaboration, and commitment to quality.

This is where quality culture becomes essential. Quality culture refers to the collective values, beliefs, and behavioral norms that prioritize quality enhancement across all academic and administrative processes (Harvey & Stensaker, 2008; Ehlers, 2009). A strong quality culture transforms external requirements into internal motivation, enabling institutions to move from compliance toward continuous improvement. Prior studies indicate that quality culture mediates the relationship between leadership and institutional performance by translating vision into practice (Sahney, 2016; Baldridge, 2020). Despite this recognition, empirical research exploring how transformational leadership fosters a quality culture that strengthens IQAS especially in Indonesian higher education is still limited.

This study was therefore conducted to fill that empirical and contextual gap. Specifically, it aims to analyze how transformational leadership contributes to the effectiveness of the Internal Quality Assurance System, both directly and indirectly through the mediating role of quality culture. The research focuses on Muslim University of Buton, Southeast Sulawesi Province, as a representative case of an institution striving to enhance its internal quality management system through leadership transformation and cultural strengthening. The study employs a quantitative explanatory design using survey data from 150 respondents, analyzed through SmartPLS to test structural relationships between leadership, culture, and quality assurance outcomes. The results show that transformational leadership significantly influences both quality culture and IQAS, with quality culture serving as a partial mediator.

Following the background explained above, the purpose of this study is to understand the mechanisms by which transformational leadership enhances the internal quality assurance system through quality culture. In line with this purpose, the study seeks to answer the following research questions:
How does transformational leadership influence quality culture in higher education institutions?
How does quality culture affect the effectiveness of the internal quality assurance system (IQAS)?
To what extent does transformational leadership have a direct influence on IQAS?
Does quality culture mediate the relationship between transformational leadership and IQAS?
Through addressing these questions, this study contributes theoretically by expanding the leadership–quality linkage through cultural mediation and provides practical insights for university leaders to strengthen IQAS implementation via value-based leadership and shared quality culture.

2. Literature Review
2.1 Transformational Leadership
Transformational leadership has long been considered one of the most influential leadership theories in organizational behavior and educational management. Rooted in the works of Burns (1978) and later developed by Bass and Avolio (1994), transformational leadership emphasizes a leader's capacity to inspire followers to transcend their self-interest for the sake of organizational goals. Transformational leaders motivate their followers by articulating a compelling vision, fostering intellectual stimulation, providing individualized consideration, and serving as role models who embody shared values and ethics (Bass, 1999). These dimensions collectively enhance motivation, creativity, and commitment within teams, ultimately leading to improved organizational performance (Avolio & Yammarino, 2013).

Previous studies in higher education have demonstrated that transformational leadership contributes significantly to various institutional outcomes, including teacher engagement, job satisfaction, and innovation (Nguni, Sleegers, & Denessen, 2006; Gumus et al., 2018). For instance, leaders who adopt a transformational style are found to empower academic staff, promote collaborative learning, and create an environment that values continuous improvement factors that are essential for implementing quality assurance systems. Moreover, transformational leadership is closely associated with the development of trust and open communication, which strengthen an institution's ability to adapt to change (Balyer, 2012). These findings suggest that leadership effectiveness in higher education is not only determined by administrative control but also by the leader's ability to shape the institutional culture through shared vision and inspiration.

However, while the empirical evidence strongly supports the positive influence of transformational leadership, scholars have also raised critical questions regarding its measurement, contextual relevance, and potential limitations. Some studies argue that the transformational model may overlook cultural variations in leadership perception, particularly in non-Western contexts where hierarchical norms remain dominant (Mittal & Dhar, 2015). Others point out that the idealized influence dimension of transformational leadership can be interpreted differently across institutions, leading to inconsistencies in results (Tourish, 2013). Furthermore, much of the existing literature focuses on corporate or school settings, whereas higher education institutions possess more complex governance structures and shared decision-making processes. This calls for a contextualized understanding of how transformational leadership functions within academia especially in developing countries like Indonesia, where educational reforms and quality assurance initiatives are ongoing. Synthesizing these perspectives, it becomes evident that transformational leadership is not a static construct but one that must be critically evaluated within specific institutional and cultural settings. A balanced literature review, therefore, acknowledges both the strengths and the limitations of existing studies. The strengths lie in transformational leadership's demonstrated impact on motivation, commitment, and innovation; its limitations, however, emerge from methodological and contextual inconsistencies. Identifying these gaps provides the foundation for the current study, which examines how transformational leadership operates in strengthening the Internal Quality Assurance System (IQAS) through the mediating role of quality culture in Indonesian higher education institutions. By doing so, the present research contributes to refining the theoretical understanding of leadership–quality linkages and contextualizing them within a developing-country framework.

2.2 Quality Culture

The literature review serves not only to summarize but also to reinterpret existing theories, enabling researchers to identify patterns, contradictions, and opportunities for new insights. As Leedy and Ormrod (2005) note, a literature review is a process of "looking again" at what others have written—critically assessing, reorganizing, and synthesizing it into a coherent argument that underpins the study's objectives. In this section, the concept of quality culture is revisited and examined as a theoretical bridge between leadership and institutional effectiveness in higher education.

The term quality culture has evolved considerably over the past two decades, particularly within the context of higher education management. The concept was first popularized as a response to the perceived limitations of traditional quality assurance systems, which were often criticized for being bureaucratic, compliance-driven, and disconnected from institutional values (Harvey & Stensaker, 2008). Ehlers (2009) defines quality culture as "a pattern of shared values, beliefs, and behaviors that prioritize continuous improvement and accountability." Unlike mechanistic approaches to quality assurance, which emphasize formal procedures and accreditation standards, quality culture emphasizes the internalization of quality as a collective mindset—a way of thinking and acting that permeates the entire organization.

In higher education, a strong quality culture represents the integration of external standards (such as accreditation criteria or government regulations) with internal motivations (such as institutional vision, shared commitment, and professional ethics). This alignment ensures that quality assurance processes move beyond compliance toward sustainable improvement (Sursock, 2011). For example, when academic staff and administrators perceive quality assurance not as an administrative burden but as a shared responsibility, they are more likely to engage in reflective practices and continuous learning (Ehlers & Schneckenberg, 2010).

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Therefore, cultivating a quality culture becomes both a strategic and human-centered endeavor—one that requires leadership, communication, and participation across institutional levels.

Several scholars have emphasized the role of leadership as a critical antecedent to developing and sustaining quality culture. Sahney (2016) argues that leadership commitment determines whether quality values become embedded in daily practices or remain superficial. Leaders influence quality culture by modeling desired behaviors, allocating resources for improvement, and creating a climate of trust and open dialogue. Similarly, Srikanthan and Dalrymple (2007) highlight that quality culture flourishes when leadership adopts a developmental, rather than a managerial, approach focusing on empowerment and shared ownership rather than control and inspection. From this perspective, leadership and culture are not separate constructs but dynamically interrelated forces that reinforce one another.

However, while the literature consistently underscores the importance of leadership in fostering quality culture, critical gaps remain. Many studies conceptualize quality culture in abstract or normative terms without empirically examining how it operates within different institutional contexts. For instance, in developing countries where higher education institutions face resource constraints and hierarchical decision structures, the notion of participatory quality culture may require reinterpretation (Toma, 2007). Moreover, the metrics used to assess quality culture often rely on self-report surveys, which may not fully capture its depth as a lived organizational phenomenon (Harvey & Newton, 2004). This methodological limitation raises questions about the validity and transferability of previous findings across different cultural and organizational settings.

Synthesizing these insights, it becomes evident that quality culture serves as both a theoretical construct and a practical mechanism linking transformational leadership and institutional quality assurance. Conceptually, it provides a humanistic dimension to quality management turning procedures into shared practices and rules into values. Practically, it highlights that the success of internal quality assurance systems depends not merely on compliance with standards but on the extent to which quality is embedded in the organizational DNA. Recognizing these dynamics, the present study examines how transformational leadership contributes to strengthening the Internal Quality Assurance System (IQAS) through the mediating influence of quality culture, thereby addressing the empirical and contextual gaps identified in the existing literature.

2.3 Internal Quality Assurance System (IQAS)

A literature review does not only describe what has been written before, but it also critically analyzes how previous research has defined, measured, and contextualized a concept. In examining the Internal Quality Assurance System (IQAS), it is essential to go beyond policy definitions and explore how this system operates as both a procedural framework and a cultural mechanism that ensures continuous institutional improvement. Following Leedy and Ormrod's (2005) guidance, reviewing literature means "looking again" at prior scholarship, questioning assumptions, and synthesizing different viewpoints to develop a solid theoretical foundation for the present study.

The Internal Quality Assurance System, commonly known in Indonesia as Sistem Penjaminan Mutu Internal (SPMI), refers to an integrated set of institutional mechanisms designed to plan, implement, evaluate, and improve the quality of educational processes (Ministry of Education and Culture, 2020). It serves as an internal governance tool ensuring that higher education institutions meet national accreditation standards while also fostering a culture of continuous learning and improvement (Dirjen Dikti, 2019). IQAS encompasses not only technical procedures such as quality documentation, monitoring, and auditing but also strategic dimensions like leadership commitment, stakeholder participation, and evidence-based decision-making (Sallis, 2014).

In the global higher education landscape, internal quality assurance has evolved as a response to the limitations of external evaluation systems. While external quality assurance focuses on compliance and accountability, internal systems emphasize ownership, participation, and continuous development (Harvey & Newton, 2004). The European University Association (EUA, 2011) emphasizes that IQAS should not merely ensure adherence to standards but must also function as an institutional learning system that promotes innovation, feedback, and strategic alignment. From this perspective, quality assurance shifts from being an administrative mechanism to a transformative process embedded within the institution's core activities—teaching, research, and community engagement.

However, establishing an effective IQAS remains a major challenge, particularly in developing countries. Several studies have shown that many institutions interpret IQAS as a bureaucratic requirement rather than as a strategic framework for organizational improvement (Vlasceanu, Grunberg, & Parlea, 2007). The tendency to focus on documentation rather than substantive quality enhancement often leads to a "paper compliance" culture, where processes are formally completed but not meaningfully internalized. As a result, quality assurance fails to produce measurable outcomes in learning quality or institutional effectiveness (Materu, 2007).

To address these challenges, recent literature highlights the importance of integrating leadership and organizational culture into the functioning of IQAS. Harvey and Stensaker (2008) argue that sustainable quality assurance depends on how deeply quality values are internalized within institutional structures and practices. Leadership plays a central role in this process by fostering shared commitment, empowering faculty, and creating participatory mechanisms for self-evaluation and improvement (Sahney, 2016). When transformational leadership aligns with an institutional quality culture, IQAS becomes more than a procedural requirement it becomes a living system that engages all academic members in reflective practice and continuous innovation (Ehlers, 2009).

Despite these advances, there remains a gap in understanding how IQAS can effectively integrate both structural and cultural dimensions. Much of the previous research has focused on compliance-based frameworks, with limited empirical investigation into the behavioral and psychological aspects of quality assurance participation. Furthermore, the majority of IQAS studies originate from Western or highly developed higher education contexts, leaving a shortage of evidence from developing systems such as Indonesia, where the implementation of SPMI is still evolving. This contextual limitation highlights the need for empirical research that examines how leadership and quality culture interact to strengthen internal quality assurance mechanisms in Indonesian higher education institutions.

Synthesizing the literature, it can be concluded that the effectiveness of IQAS lies in its dual nature: it must be both systemic providing structured policies, processes, and evaluation mechanisms and cultural embedding values of responsibility, reflection, and collaboration among academic staff. The present study contributes to this discourse by analyzing how transformational leadership influences IQAS directly and indirectly through quality culture. By integrating these constructs, the study offers a holistic understanding of how leadership-driven cultural change can transform IQAS from a bureaucratic function into an agent of continuous institutional learning and excellence.

2.4 Hypothesis Development
Based on the theoretical framework, four hypotheses were proposed:
H1: Transformational Leadership positively affects Quality Culture.
H2: Quality Culture positively affects IQAS.
H3: Transformational Leadership positively affects IQAS.
H4: Quality Culture mediates the relationship between Transformational Leadership and IQAS.

3. Research Methods
This study employed a quantitative explanatory design to examine the causal relationships among transformational leadership, quality culture, and the internal quality assurance system (IQAS) within higher education institutions. The explanatory approach was chosen because it allows researchers to test theoretical models and hypotheses derived from existing literature using statistical techniques (Creswell, 2014). The study was conducted using a cross-sectional survey method, which collects data from respondents at a single point in time to capture the current perceptions and behaviors of academic staff. This design is appropriate for assessing relational effects among constructs when experimental manipulation is not feasible in institutional settings such as universities.

3.1 Population and Sample
The population of the study comprised lecturers and academic staff at the Muslim University of Buton (UMU Buton) located in Baubau, Buton Island, Southeast Sulawesi Province, Indonesia. These participants were

selected because they play a direct role in implementing and maintaining the institution's internal quality assurance processes, making them the most relevant subjects for examining the proposed relationships. A purposive sampling technique was employed to ensure that participants possessed the necessary experience and understanding of institutional operations. The inclusion criteria required respondents to have served for at least one year in either academic or administrative roles, as such tenure indicates adequate familiarity with institutional policies and quality management practices.

A total of 150 valid responses were collected through an online questionnaire distributed via institutional email and digital platforms. The response rate was considered satisfactory for Partial Least Squares–Structural Equation Modeling (PLS-SEM) analysis, which is suitable for medium-sized samples and complex models (Hair, Hult, Ringle, & Sarstedt, 2021). Demographically, the sample included a balanced distribution of gender and a range of educational qualifications, reflecting the academic diversity of the institution.

3.2 Research Instrument
Data were collected using a structured questionnaire that consisted of three sections: (1) demographic information, (2) measurement of the three main constructs, and (3) validation items to ensure response quality. All constructs were measured on a 7-point Likert scale ranging from *1 = strongly disagree* to *7 = strongly agree*. This scaling choice provides higher sensitivity in capturing respondents' attitudes and reduces central tendency bias (Joshi et al., 2015).

Each variable was operationalized using validated measurement items adapted from prior studies to ensure construct reliability and content validity:

1. Transformational Leadership (TL): Measured with 3 items reflecting idealized influence, inspirational motivation, and intellectual stimulation, adapted from Bass and Avolio (1994).
2. Quality Culture (QC): Measured with 3 items capturing shared commitment, continuous improvement, and communication of quality values, based on Ehlers (2009).
3. Internal Quality Assurance System (IQAS): Measured with 3 items covering planning, implementation, and evaluation of quality mechanisms, in line with the Ministry of Education and Culture (2020) guidelines.

Prior to full deployment, the questionnaire underwent a content validation process involving two experts in education management and one expert in psychometrics to ensure clarity, relevance, and construct representativeness. A pilot test with 20 respondents was also conducted to verify item reliability and language comprehension. Feedback from the pilot phase led to minor revisions in item phrasing for better contextual alignment with Indonesian higher education terminology.

3.3 Data Collection Procedures
Data collection was conducted over a four-week period using an online survey platform to enhance accessibility and ensure anonymity, thus minimizing social desirability bias. Participants were informed about the purpose of the study, confidentiality of their responses, and voluntary participation. Ethical approval was obtained from the institutional research ethics committee prior to data collection, ensuring compliance with research integrity standards.

3.4 Data Analysis Techniques
Data analysis was performed using SmartPLS version 4, which is particularly suitable for predictive and exploratory modeling in social sciences with moderate sample sizes. PLS-SEM was selected because it allows for simultaneous estimation of measurement and structural models and does not require strict normality assumptions (Hair et al., 2021). The analysis followed two major stages:

1. Measurement Model Evaluation (Outer Model) – to assess the reliability and validity of constructs.
2. Reliability was examined using Cronbach's Alpha (CA) and Composite Reliability (CR), with threshold values ≥ 0.70 indicating internal consistency.
3. Convergent validity was assessed via Average Variance Extracted (AVE), with acceptable levels ≥ 0.50.

4. Discriminant validity was verified using the Heterotrait-Monotrait ratio (HTMT), ensuring values below 0.85 as recommended by Henseler, Ringle, and Sarstedt (2015).
5. Structural Model Evaluation (Inner Model) – to test the hypothesized relationships among constructs.
6. Path coefficients (β), *t*-statistics, and *p*-values were derived from bootstrapping procedures with 5,000 resamples, ensuring robust significance testing.
7. The model's explanatory power was examined through R^2 values, indicating the proportion of variance explained in the endogenous constructs (QC and IQAS).
8. Additionally, effect size (f^2) and predictive relevance (Q^2) values were calculated to determine the strength and predictive accuracy of the model.

All analytical results, including reliability coefficients, path estimates, and mediation effects, were subsequently interpreted in the *Results and Discussion* section to determine the extent to which transformational leadership and quality culture contribute to strengthening the internal quality assurance system.

4. Results and Discussion
4.1 Measurement Model
Before testing the structural relationships among the constructs, the measurement model was first evaluated to ensure the reliability and validity of the instruments used. The results presented in Table 1 indicate that all constructs, Transformational Leadership (TL), Quality Culture (QC), and Internal Quality Assurance System (IQAS) met the recommended thresholds for internal consistency and convergent validity.

Table 1. Reliability and Convergent Validity of the Measurement Model

Construct	Cronbach's Alpha	Composite Reliability (CR)	Average Variance Extracted (AVE)
Transformational Leadership	0.847	0.908	0.766
Quality Culture	0.808	0.887	0.723
Internal Quality Assurance System (IQAS)	0.846	0.907	0.765

All Cronbach's Alpha and CR values exceeded 0.70, indicating high reliability, while the AVE values were above 0.50, confirming convergent validity (Hair et al., 2021). Furthermore, the Heterotrait-Monotrait (HTMT) ratios among constructs (TL–QC = 0.665; TL–IQAS = 0.551; QC–IQAS = 0.727) were all below 0.85, satisfying discriminant validity (Henseler et al., 2015). These results demonstrate that the measurement items effectively represented their respective latent variables, providing a solid foundation for the subsequent structural analysis.
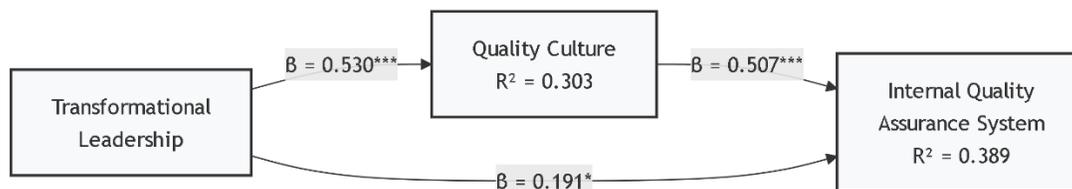
4.2 Structural Model
The structural model results were assessed to examine the hypothesized relationships among transformational leadership, quality culture, and IQAS. The model displayed satisfactory predictive accuracy, with $R^2 = 0.303$ for Quality Culture and $R^2 = 0.389$ for IQAS, both of which fall within the moderate range (Chin, 1998). This indicates that transformational leadership explains 30.3% of the variance in quality culture, while both leadership and culture jointly explain 38.9% of the variance in IQAS. The path coefficients and significance levels are summarized in Table 2.

Table 2. Path Coefficients and Hypothesis Testing Results of the Structural Model

Path	Beta (β)	t-value	p-value	Decision
TL → QC	0.530	8.03	<0.001	Supported
TL → IQAS	0.191	2.50	0.013	Supported
QC → IQAS	0.510	6.43	<0.001	Supported
TL → QC → IQAS (Indirect)	0.269	—	<0.001	Supported

Figure 2. Structural Model of the Study

Note: p < 0.001, p < 0.05. R^2 values indicate variance explained in endogenous variables. The indirect effect of transformational leadership on IQAS through quality culture is β = 0.269, p < 0.001, indicating partial mediation The structural model shown in Figure 2 illustrates the hypothesized relationships between transformational leadership, quality culture, and the internal quality assurance system (IQAS). Path coefficients indicate that transformational leadership significantly affects both quality culture (β = 0.530, $p < 0.001$) and IQAS (β = 0.191, $p = 0.013$), while quality culture strongly influences IQAS (β = 0.510, $p < 0.001$). The indirect effect (β = 0.269, $p < 0.001$) confirms the partial mediation role of quality culture, with R^2 values showing moderate predictive power for both endogenous constructs (R^2QC = 0.303; R^2IQAS = 0.389). These findings collectively suggest that the model provides a reliable and theoretically grounded representation of how transformational leadership and organizational culture jointly shape institutional quality assurance in higher education

4.3 Discussion
The structural results were interpreted in accordance with the four research questions formulated in this study.

(1) Does transformational leadership significantly influence quality culture in higher education institutions?
The first hypothesis (H1) is supported, as the path from transformational leadership to quality culture is positive and significant (β = 0.530, t = 8.03, p < 0.001). This finding indicates that leaders who exhibit transformational behaviors such as articulating a shared vision, providing intellectual stimulation, and offering individualized support are successful in fostering a collective commitment to quality within their institutions. This result corroborates previous studies showing that transformational leadership is a key driver in shaping organizational culture (Nguni et al., 2006; Balyer, 2012).
In the context of higher education, this implies that leadership plays a pivotal role in embedding values of accountability and continuous improvement into institutional routines. The finding supports Ehlers' (2009) assertion that leadership commitment is the foundation of a sustainable quality culture, as leaders serve not merely as administrators but as cultural architects who shape organizational behavior and values.

(2) Does quality culture significantly influence the internal quality assurance system (IQAS)?
The second hypothesis (H2) is also supported, with a strong and significant effect of quality culture on IQAS (β = 0.510, t = 6.43, p < 0.001). This suggests that when an institution develops a robust quality culture where shared values, mutual trust, and continuous learning are emphasized the internal quality assurance mechanisms become more effective and sustainable.
This result aligns with Sahney's (2016) and Harvey & Stensaker's (2008) argument that cultural factors determine whether quality assurance evolves into a living system or remains a bureaucratic exercise. In the case of the Muslim University of Buton (UMU Buton), the data imply that employees' shared understanding of quality principles has translated into better planning, implementation, and evaluation of the IQAS processes. Thus, culture serves not only as a mediator but also as a direct enabler of quality assurance effectiveness.

(3) Does transformational leadership have a direct influence on the internal quality assurance system (IQAS)?
The third hypothesis (H3) is confirmed by the result showing a positive and significant direct path (β = 0.191, t = 2.50, p = 0.013). This indicates that transformational leadership contributes directly to enhancing IQAS implementation, independent of cultural mediation. Although the effect size is moderate, it remains statistically significant, implying that leadership directly facilitates the alignment of institutional goals, the mobilization of resources, and the coordination of quality improvement initiatives.

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This finding echoes prior research by Baldridge (2020) and Sallis (2014), who emphasized that leadership behaviors—particularly inspirational and visionary styles can stimulate systemic change within educational institutions. However, the moderate effect observed in this study suggests that leadership's direct impact on IQAS is complemented by the indirect, culture-mediated pathway, reflecting a nuanced and realistic understanding of institutional dynamics.

(4) Does quality culture mediate the relationship between transformational leadership and IQAS?
Finally, the fourth hypothesis (H4) regarding mediation is also supported. The indirect path from transformational leadership to IQAS through quality culture is significant ($\beta = 0.269$, $p < 0.001$), demonstrating partial mediation. This finding indicates that transformational leadership not only influences IQAS directly but also indirectly through the creation of a strong quality culture that translates leadership ideals into operational practices.

This result supports the theoretical framework proposed by Harvey & Stensaker (2008) and Ehlers (2009), which conceptualize quality culture as the "bridge" between leadership vision and institutional performance. In practical terms, transformational leaders cultivate values of trust, collaboration, and shared responsibility, which then enable the effective functioning of quality assurance mechanisms. Thus, the presence of a strong quality culture amplifies the effectiveness of leadership interventions.

Synthesis and Implications
Taken together, these findings confirm that transformational leadership exerts a dual influence on institutional quality assurance both directly, by providing strategic direction and motivation, and indirectly, through the cultivation of a supportive quality culture. The partial mediation observed indicates that while leadership remains a critical driver, its impact is maximized when institutional members internalize quality values and engage collectively in improvement processes.

Theoretically, this study contributes to the expanding body of literature linking leadership and quality management by empirically validating the mediating role of culture. It reinforces the argument that successful IQAS implementation requires not only structural mechanisms but also the soft dimensions of leadership and culture (Sahney, 2016; Ehlers, 2009).

Practically, the results suggest that higher education leaders should focus on value-based leadership training, participatory decision-making, and internal communication strategies that strengthen cultural alignment. Institutions should move beyond compliance-based quality assurance to build a culture where quality is lived, not merely measured.

In summary, the study provides empirical evidence that transformational leadership, when coupled with a strong quality culture, significantly enhances the effectiveness of internal quality assurance systems in higher education institutions an insight that holds critical implications for educational governance in Indonesia and beyond.

5. Conclusion and Implications
This study aimed to investigate the role of transformational leadership in strengthening the Internal Quality Assurance System (IQAS) in higher education, with a particular focus on the mediating role of quality culture. Using quantitative explanatory analysis with 150 respondents from the Muslim University of Buton (UMU Buton), the findings provide compelling evidence that transformational leadership exerts both direct and indirect influences on IQAS effectiveness. Specifically, leaders who articulate a shared vision, inspire collaboration, and empower academic staff significantly contribute to the establishment of a culture that values continuous improvement and accountability. This shared culture, in turn, reinforces the planning, implementation, and evaluation processes within the IQAS framework.

The results demonstrate that transformational leadership has a moderate but significant direct impact on IQAS, indicating that visionary and supportive leadership behaviors alone can foster institutional alignment toward quality goals. More importantly, the mediating effect of quality culture reveals that the true strength of leadership lies in its ability to transform organizational values and norms into a collective commitment to

quality. Thus, IQAS effectiveness depends not merely on compliance with formal procedures but on the internalization of quality as a shared belief and institutional identity.

At the Muslim University of Buton (UMU Buton), these findings manifest in the form of trust, collaboration, and a proactive approach to quality enhancement. When leadership nurtures open communication and encourages innovation, the institution moves beyond bureaucratic quality assurance toward a living system of continuous learning. Such cultural internalization ensures that quality assurance becomes an integral part of institutional life rather than a periodic administrative exercise.

Theoretical Implications
From a theoretical perspective, this study contributes to the ongoing discourse on leadership and organizational quality in higher education by integrating cultural mediation into the transformational leadership and quality assurance framework. While prior studies have emphasized the structural and procedural aspects of quality management, this research extends the Job Demands–Resources (JD-R) model (Bakker & Demerouti, 2017) and the Transformational Leadership Theory (Bass & Avolio, 1994) by introducing quality culture as a mediating mechanism that connects leadership behaviors with institutional performance. The findings validate the notion that leadership resources such as inspiration, intellectual stimulation, and individualized consideration serve as organizational "resources" that reduce strain, enhance engagement, and promote collective motivation toward quality improvement. By positioning culture as the psychological and social conduit of leadership influence, this study advances theoretical understanding of how soft dimensions of management interact with hard systems of governance in higher education.

Moreover, this research addresses a gap in the literature by contextualizing transformational leadership within Indonesian higher education, a setting characterized by hierarchical decision-making and evolving quality assurance systems. The results demonstrate that even within such contexts, value-based leadership can effectively build bottom-up cultural engagement, reaffirming the universality yet contextual adaptability of transformational leadership principles.

Practical Implications
Practically, the findings provide actionable insights for university leaders and policymakers seeking to enhance institutional quality assurance.

Leadership Development Higher education institutions should invest in value-based leadership training programs that emphasize emotional intelligence, vision-building, and participatory management. Transformational leadership development initiatives can help academic leaders internalize quality-oriented mindsets and foster engagement across departments.

Cultural Integration Institutions must go beyond formal accreditation requirements by embedding quality values into everyday practices. This can be achieved through internal communication strategies, peer review sessions, and recognition systems that reinforce shared ownership of quality outcomes.
Collaborative Quality Systems The establishment of cross-functional quality teams can facilitate dialogue between academic and administrative units, ensuring that quality assurance processes are understood and implemented consistently across levels.

Policy Alignment Institutional policies should align leadership practices, performance evaluation, and reward systems with the principles of continuous improvement. This alignment ensures that quality assurance becomes both a collective goal and a personal responsibility among academic staff.

By focusing on these managerial and cultural interventions, higher education institutions can transition from compliance-based quality systems to value-driven, sustainable quality cultures that ensure long-term institutional excellence.

Future Research Directions
While this study provides valuable empirical insights, several areas warrant further exploration. First, the use of cross-sectional data limits causal inferences. Future studies should employ longitudinal designs

to capture how transformational leadership and quality culture evolve over time and influence sustained improvements in IQAS outcomes.

Second, comparative research involving multiple institutions or regions could offer a broader understanding of contextual factors such as institutional governance, size, and accreditation status that may moderate the relationships observed in this study.
Third, future researchers may incorporate qualitative or mixed-method approaches to explore deeper narratives of cultural transformation, capturing how staff perceive and internalize quality values in daily academic life.

Lastly, given the increasing digitalization of higher education, subsequent studies could examine how digital leadership and technology-enabled quality management systems interact with culture and leadership to enhance institutional effectiveness.

In conclusion, this study underscores that transformational leadership is not merely about strategic direction but about cultural transformation the ability to inspire people to see quality as a shared vision rather than an imposed requirement. When leaders foster a participative and trust-based environment, the internal quality assurance system becomes a living reflection of institutional integrity, innovation, and sustainability. By bridging leadership and culture, this study provides a foundation for designing future policies and practices that position Indonesian higher education on a continuous trajectory toward global excellence.

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