

LEADERSHIP LEGACY AND SUSTAINABLE SCHOOL PERFORMANCE: A SYSTEMATIC LITERATURE REVIEW OF LEADERSHIP STYLE, ORGANIZATIONAL CULTURE, TEACHER MOTIVATION, AND JOB SATISFACTION

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ABSTRACT

This study examines how leadership style, organizational culture, teacher motivation, and job satisfaction contribute to leadership legacy and sustainable school performance. The purpose of this study is to synthesize existing research, identify key research gaps, and propose an integrative conceptual framework that supports sustainable educational leadership aligned with Sustainable Development Goal 4 (SDG 4). A systematic literature review (SLR) was conducted following PRISMA guidelines. Articles were retrieved through the Dimensions AI platform, which provides access to major academic databases including Scopus, Emerald Insight, ScienceDirect, SpringerLink, and Google Scholar. The initial search identified 150 studies published between 2015 and 2025. After applying inclusion and exclusion criteria based on the PICOS framework and conducting independent screening by two researchers, 42 articles were selected for final analysis. Inter-coder reliability was assessed using Cohen’s kappa to ensure analytical consistency. The findings reveal three key patterns. First, leadership style—particularly transformational, instructional, and collaborative leadership—plays a central role in shaping leadership legacy and long-term school development. Second, organizational culture functions as an institutional mechanism that preserves leadership values and practices across leadership transitions. Third, teacher motivation and job satisfaction act as mediating factors linking leadership practices with school performance outcomes. This study contributes theoretically by proposing an integrative framework connecting leadership style, organizational culture, teacher motivation, and job satisfaction to leadership legacy and sustainable school performance. Practically, the findings provide insights for policymakers and school leaders seeking to strengthen sustainable educational leadership, particularly within the context of Indonesian secondary education.

Keywords: Job Satisfaction, Leadership Legacy, Leadership Style, Organizational Culture, School Performance

1. Introduction

Education plays a crucial role in shaping future generations with strong character, competence, and 21st-century skills. In Indonesia, the national educational vision emphasizes developing learners who are faithful, knowledgeable, skilled, creative, and independent (Kemendikbudristek, 2022). Globally, educational development aligns with Sustainable Development Goal 4 (SDG 4), which aims to ensure inclusive, equitable, and quality education while promoting lifelong learning opportunities for everyone by 2030 (United Nations, 2015). Achieving these goals requires not only effective educational systems but also sustainable leadership within schools. School leadership is widely recognized as a key factor in institutional success, serving not only as management but also as a catalyst for innovation and long-term value embedded in school culture (Bush, 2020; Fullan, 2020; Leithwood et al., 2020). In Indonesia, the strategic role of principals is reinforced through regulations such as the National Education System Law (UU No. 20/2003), Government Regulation No. 19/2005

on National Education Standards and its amendment (PP No. 13/2015), as well as Ministerial Regulations (Permendiknas No. 13/2007; Permendikbud No. 6/2018). These policies require principals to demonstrate managerial, instructional, entrepreneurial, and supervisory skills. As a result, principals are expected to serve not only as administrators but also as learning leaders who empower teachers and promote continuous school improvement. However, data from the Ministry of Education and Culture (2023) shows that fewer than 30% of Indonesian secondary schools have adequate managerial and leadership sustainability. This highlights a persistent gap between policy expectations and actual school leadership practices.

One important but often overlooked aspect of leadership studies is leadership legacy—the lasting values, systems, and cultures that leaders establish (Groves, 2007). International research indicates that leadership legacy plays a significant role in long-term school success (Gurr & Drysdale, 2017; Earley & Greany, 2017). Other studies emphasize that teacher motivation can mediate the relationship between leadership and institutional performance (Eze & Okeke, 2020). However, in Indonesia and many developing regions, leadership legacy has received limited scholarly attention (Harsoyo, 2022; Lumban, 2023; Tamambang et al., 2024). This lack of focus raises concerns about the sustainability of school vision, culture, and performance, especially during leadership changes. School effectiveness is also influenced by the interaction of several internal factors, including leadership style, organizational culture, teacher motivation, and job satisfaction. Prior research indicates that transformational and instructional leadership significantly affect teacher practices and student outcomes (Antonopoulou, 2021; Gumus, 2018). Organizational culture supports the maintenance of leadership practices (Wijaya, 2025), while teacher motivation and job satisfaction influence commitment and performance (Çoban et al., 2023; Wasito et al., 2021). However, most studies examine these factors independently, rarely analyzing how their interaction contributes to a sustainable leadership legacy and long-term school success. In accordance with this rationale, the review is guided by the following research questions (RQs):

RQ1: How does the principal's leadership style affect the formation of leadership legacy in secondary schools?

RQ2: How does organisational culture support the inheritance of values and sustainable leadership practices?

RQ3: To what extent do teacher motivation and job satisfaction mediate the influence of leadership-on-legacy and school performance?

The novelty of this study lies in three main aspects. First, while earlier research has examined leadership styles, organizational culture, teacher motivation, and job satisfaction separately, there is limited research that combines these variables into a comprehensive framework explaining leadership legacy and sustainable school performance. Second, this study uses a systematic literature review with PRISMA to synthesize interdisciplinary leadership research, providing a structured overview of theoretical progress in educational leadership. Third, the study places leadership legacy within the Indonesian educational system, especially in secondary schools, offering insights into leadership sustainability in developing educational settings.

2. LITERATURE REVIEW

This review uses a systematic thematic synthesis to organize studies on educational leadership, organizational culture, teacher motivation, job satisfaction, and leadership legacy in relation to school performance. The method allows the integration of findings to answer the research questions (RQ1–RQ3). Four themes are identified: (1) leadership style and legacy

development, (2) organizational culture as a sustainability tool, (3) teacher motivation and job satisfaction as mediators, and (4) contextual dynamics in Indonesia.

2.1 Leadership Style and Legacy Formation

Leadership style is essential for shaping a leadership legacy. Basthomi, Sunandar, & Timan (2023) demonstrate that instructional leadership, aligned with Kurt Lewin’s change model, can improve sustained growth in teachers' skills. In the digital age, adaptive leadership becomes more vital because organizational sustainability relies on flexibility and innovation (Safitri et al., 2023). Therefore, leadership is not only about achieving short-term results but also about building lasting values, norms, and practices that support institutional continuity (Masaong & Arifin, 2023). Participatory, visionary, and adaptive leadership styles are regarded as more effective in creating a lasting legacy compared to authoritarian or bureaucratic approaches (Xhomara, 2019; Gumus, 2018). Thus, leadership is not just about managerial authority but a process of passing down institutional vision, culture, and values across generations.

2.2 Organisational Culture and Sustainability

Organizational culture acts as a mechanism that maintains leadership influence. Institutionalized values and norms determine whether leadership principles can persist over time (Schein, 2017). In schools, collaborative cultures characterized by trust and innovation encourage teachers to engage in decision-making and pedagogical development (Çoban et al., 2023). Research at Madrasah Aliyah Irsyadul Islamiyah shows that organizational culture and leadership together influence teacher performance, with motivation strengthening this relationship (Prastyo et al., 2023). Similarly, innovative cultures enable adaptive leadership to remain effective despite organizational changes (Akbar et al., 2024). Research in Nias also indicates that school culture mediates the relationship between transformational leadership and teacher performance (Lase, Dewi, & Hajar, 2024). Weak cultures can undermine leadership continuity, while strong cultures sustain the institution's vision and mission.

2.3 Teacher Motivation and Job Satisfaction as Mediating Dynamics

Teacher motivation and job satisfaction act as key mediators connecting leadership and organizational culture with school performance. Motivated teachers tend to be more productive, creative, and committed (Kim et al., 2019). Marjono & Heryjanto (2023) found that work motivation mediates the effect of leadership style and school culture on teacher performance. Similar findings in Riau show that organizational motivation and dedication increase job satisfaction, which in turn improves teacher performance (Kersiati et al., 2023). In Dayun District, job satisfaction significantly affects teacher loyalty and strengthens the link between leadership and school success (Hamsal et al., 2022). Teachers with strong intrinsic motivation are also more likely to act as innovators rather than passive policy enforcers (Garcia et al., 2021). On the other hand, low motivation and dissatisfaction can weaken leadership’s legitimacy and limit its impact.

2.4 Contextual Dynamics in Indonesia

Leadership effectiveness is shaped by contextual factors. Studies in Indonesia show that outcomes vary based on school characteristics, regional contexts, and community culture. Research in Gido District, Nias, indicates that transformational leadership and school culture influence teacher motivation and performance, though these effects differ

depending on socio-economic conditions (Lase et al., 2024). The digital era also requires adaptive leadership supported by technological innovation to sustain school performance (Safitri et al., 2023). In Islamic schools, teacher job satisfaction is affected not only by organizational factors but also by religious values embedded in school culture (Fahera & Firmansyah, 2024).

Within this context, Muhammadiyah schools—one of Indonesia's largest private education networks—are a significant yet understudied research area. Few studies explore leadership style, organizational culture, motivation, job satisfaction, and leadership legacy within this network. Given the scale of Muhammadiyah education, sustainable leadership is crucial for maintaining long-term school performance. Based on this synthesis, leadership legacy results from the interaction of leadership style, organizational culture, teacher motivation, and job satisfaction, all of which together influence sustainable school performance, see **Figure 1**.

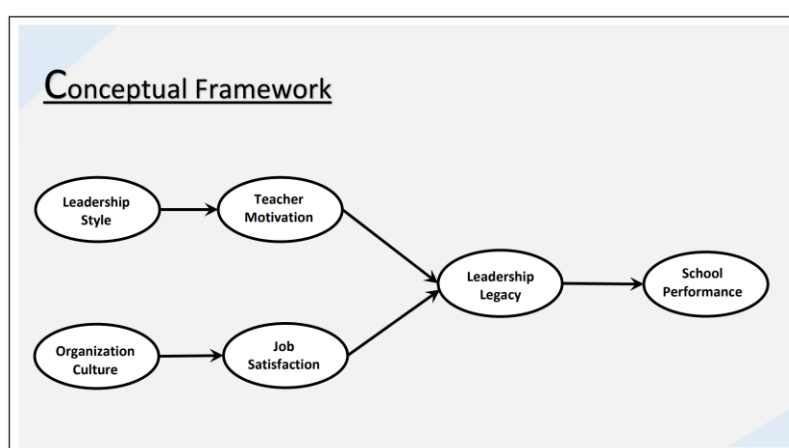


Figure 1. Conceptual Framework
Source: Prepared by the author from a synthesis of literature

A review of the literature shows that previous research remains fragmented, with some studies focusing on leadership styles, organizational culture, or teacher motivation, but rarely integrating these aspects into a framework that explains the lasting impact of leadership. Recent literature (2023–2024) highlights the need for an integrated approach, especially in Indonesia, where the challenge is to maintain the quality of education. With the proposed conceptual framework, this research aims to contribute both theoretically and practically by enhancing the capacity of educational leadership.

3. Research Method

This section describes the methodology of a Systematic Literature Review (SLR) that explores how leadership style, organizational culture, teacher motivation, and job satisfaction influence leadership legacy and school performance. This aligns with the dissertation proposal by Ardin Sianipar (Universitas Pelita Harapan, 2025). The study focuses on Indonesian secondary schools, mainly Muhammadiyah institutions in North Sumatra, addressing challenges related to leadership sustainability following the COVID-19 pandemic (Kemendikbudristek, 2023). Article selection was conducted using Dimensions AI, which accesses databases such as Scopus, Emerald Insight, ScienceDirect, SpringerLink, and Google Scholar (Thelwall, 2018). Inclusion and exclusion criteria were applied based on the PICOS framework to ensure a transparent and reproducible study selection process (Methley et al.,

2014). The eligibility criteria were refined using the PICOS framework for clarity and repeatability (see Table 1).

Table 1: Inclusion/Exclusion Criteria

Criterion	Inclusion	Exclusion
Population (P)	Studies on school leaders, teachers, and secondary education institutions (K–12 and high schools, including faith-based schools)	Higher education or non-educational contexts
Intervention/Exposure (I)	Leadership styles (transformational, instructional, distributed, adaptive), organisational culture, teacher motivation, job satisfaction	Studies not explicitly addressing these constructs
Context (C)	Educational settings globally, with emphasis on secondary schools; English-language peer-reviewed journals (Q1–Q2 indexed in Scopus/WoS)	Non-English sources, conference abstracts, dissertations, grey reports
Outcomes (O)	Leadership legacy, continuity, sustainability, teacher performance, student achievement, institutional performance	Studies without measurable outcomes or conceptual linkage
Study Design (S)	Empirical quantitative, qualitative, or mixed-methods; systematic reviews/meta-analyses	Opinion papers, editorials, non-empirical essays
Year Range	2015–2025	Pre-2015 or post-2025

Source: Prepared by the authors based on (Methley et al., 2014).

3.1 Data Sources and Search Strategy.

Searches were conducted using web tools that simulated access to Dimensions AI, targeting Scopus, Emerald Insight, ScienceDirect, SpringerLink, and Google Scholar. The searches were performed in September 2025, covering studies published from 2015 through August 2025. Boolean operators and wildcard strategies were employed to capture variations in key terms, search string (Dimensions AI): Keywords: *"Leadership Style" OR "Transformational Leadership" AND ("Leadership Legacy" OR "Sustainable Leadership") AND ("School Performance" OR "Sustainability School Performance") AND ("Teacher Motivation" OR "Job Satisfaction") AND "Organisational Culture". Variations included "educational leadership" and "triangulation" for breadth.*

3.2 Systematic Search Protocol.

Based on the dissertation topic “The Influence of Leadership Style, Organisational Culture, Teacher Motivation, Job Satisfaction, Leadership Legacy, and School Performance,” key search terms were identified from these six themes. The search covered publications from 2015 to 2025 to include both pre- and post-COVID-19 contexts. Using Dimensions AI to simulate access to Scopus, Emerald Insight, ScienceDirect, SpringerLink, and Google Scholar, the initial search yielded 150 articles. After narrowing down to 12 Scopus-indexed Q1 journals—such as Educational Management Administration & Leadership, International Journal of Leadership in Education, Educational Administration Quarterly, and Teaching and Teacher Education—the dataset was reduced to 90 articles. Two researchers independently applied inclusion and exclusion criteria, achieving a Cohen’s κ of 0.85 (Landis & Koch, 1977), with disagreements resolved by a third coder. The final sample included 42 articles, documented through a PRISMA flowchart PRISMA 2021 (Page et al., 2021), see Figure 2.

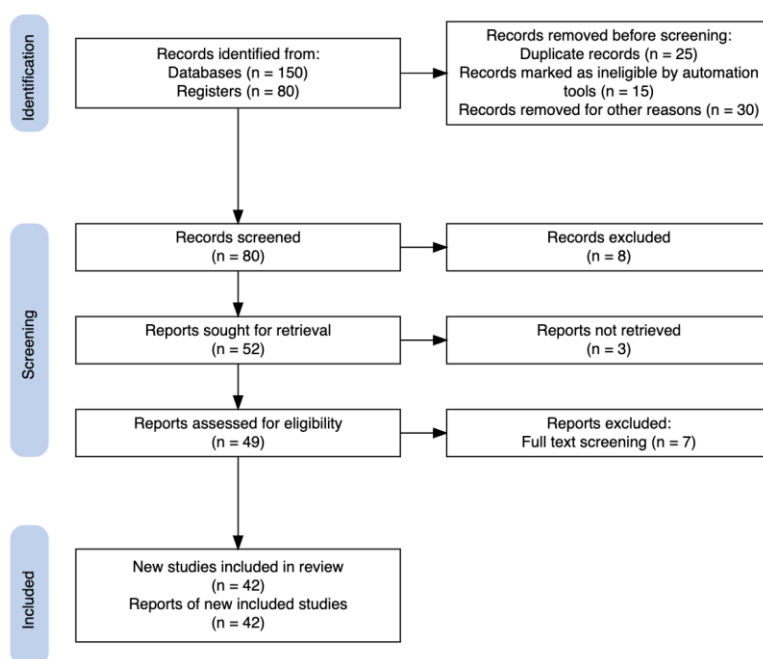


Figure 2: PRISMA Flowchart

Source: prepared by the author based on Petticrew & Roberts (2006)

3.3 Quality Appraisal

According to Xiao and Watson (2019, p. 106), scoping reviews aim to map the scope of existing studies rather than strictly evaluate their quality; therefore, quality assessment should serve as an awareness tool rather than a strict cutoff for inclusion. In this Systematic Literature Review (SLR) on the influence of leadership style, organizational culture, teacher motivation, and job satisfaction on leadership legacy and school performance, article quality was maintained through a thorough selection process. Studies were retrieved using Dimensions AI, which simulates access to major databases including Scopus, Emerald Insight, ScienceDirect, SpringerLink, and Google Scholar. From an initial 150 articles, 80 from 12 Q1-ranked journals were identified, followed by duplicate screening (20), title–abstract screening (eliminating 11), and full-text review (eliminating 7). The final sample consisted of 42 articles selected based on strict inclusion criteria and content analysis,

ensuring methodological rigor, theoretical relevance, and alignment with secondary education in Indonesia.

3.4 Data Extraction and Synthesis

Data extraction started by entering the 42 selected articles into Microsoft Excel using a predefined metadata template. Irrelevant information was removed, and key details were recorded, including publication year, authors, title, abstract, journal, research context, themes (leadership style, organizational culture, teacher motivation, job satisfaction, leadership legacy, and school performance), theoretical frameworks, research questions or hypotheses, methodologies, findings, and implications for secondary education. These elements were identified through detailed analysis, reflecting the ontological and epistemological perspectives of educational leadership (Leithwood et al., 2020). The data were then coded according to these categories, with two researchers conducting dual coding to ensure reliability. Discrepancies were resolved through discussion, resulting in an inter-coder agreement above 0.87. The synthesis combined coded findings to refine the conceptual framework and identify patterns linking leadership factors to leadership legacy and school performance.

4. RESULTS AND DISCUSSIONS

This section covers the analysis and results. First, a table shows the eligible articles collected from the search, including their publication year, author(s), title, and research themes (see Table 2). Then, it discusses general aspects such as publication titles, research context, research themes, theoretical framework, findings, suggestions for future research, and perspectives on leadership legacy and school performance.

Table 2: Data Extraction

Author/Year	Research Themes	Method	Theoretical Anchor	Key Finding
Bush (2020)	Leadership Style and Legacy Formation	Theoretical Review	Transformational Leadership	Transformational leadership enhances a school's legacy through its vision.
Leithwood et al. (2020)	Distributed Leadership and Sustainability	Mixed Methods	Distributed Leadership	Distributed leadership fosters sustainable school practices.
Fullan (2020)	Change Leadership and School Culture	Conceptual Analysis	Change Leadership	Change leadership builds an enduring school culture.
Gurr & Drysdale (2017)	Instructional Leadership and Success	Case Study	Instructional Leadership	Instructional leadership is crucial for sustaining school success in Australia.

Earley & Greany (2017)	Organisational Learning and Legacy	Qualitative	Organizational Learning	Learning cultures enhance legacy in UK schools.
Eze & Okeke (2020)	Teacher Motivation as Mediator	Survey	Motivation Theory	Motivation mediates the impact of leadership on school effectiveness.
Çoban et al., (2023)	Trust-Based Leadership and Collaboration	Empirical	Trust-Based Leadership	Trust improves teacher collaboration and school outcomes.
Wasito et al. (2021)	Organisational Culture and Motivation	Regression Analysis	Organizational Culture	Dysfunctional culture reduces teacher motivation.
Antonopoulou (2021)	Transformational Leadership and Performance	Mixed Methods	Transformational Leadership	A transformational style boosts both teacher and student performance.
Gumus (2018)	Integrated Leadership and Pedagogical Quality	Meta-Analysis	Integrated Leadership	Integrated styles enhance pedagogical quality and legacy.
Garcia et al. (2021)	Collaborative Leadership and Teacher Empowerment	Qualitative	Collaborative Leadership	Collaboration empowers teachers as learning leaders.
Xhomara (2019)	Leadership Style and Teaching Practices	Correlation Study	Instructional Leadership	Leadership correlates with effective teaching practices.
Wijaya (2025).	Leadership and Organisational Climate	Survey	Organizational Climate	Leadership-climate synergy drives productive environments.
Ketikidou, G., & Saiti, A. (2025)	Systemic Leadership and Performance	Systems Analysis	Systems Theory	Holistic approaches link leadership to performance.
Latta, G. F. (2020).	Cultural Factors and Leadership Impact	Mixed Methods	Socio-Cultural Theory	Culture mediates leadership effects on performance.
Leijen (2020)	Interdependent Factors and Effectiveness	Qualitative	Ecological Model	Interdependent factors shape school effectiveness.

Kim et al., (2019)	Motivation and Teaching Effectiveness	Survey	Self-Determination Theory	Motivation enhances teaching and student outcomes.
Ross & Cozzens (2016)	Professional Learning and Supportive Environment	Case Study	Professional Learning Communities	Principals foster reflective teaching via support.
Memon et al. (2021)	Visionary Leadership and Strategy	Regression Analysis	Visionary Leadership	Clear vision improves school performance.
Brown et al., (2023)	Motivation Strategies and Success	Mixed Methods	Strategic Management	Consistent strategies sustain school success.
Peng, S., & Huang, Y. (2024)	Authoritarian Leadership and Dissatisfaction	Survey	Authoritarian Leadership	Authoritarian styles increase teacher dissatisfaction.
Pizzolitto (2023)	Toxic Leadership and Climate	Qualitative	Toxic Leadership	Poor leadership hinders a favourable school climate.
Zaman (2019)	Leadership Styles and Teacher Morale	Correlation Study	Leadership Styles	Autocratic leadership negatively affects morale.
McKimm et al. (2023)	Adaptive Leadership and Resilience	Empirical	Adaptive Leadership	Adaptive leadership supports resilient ecosystems.
Chang-Tik (2023).	Collaborative Culture and Performance	Mixed Methods	Collaborative Culture	Collaboration enhances sustainable performance.
Yalçinkaya et al. (2021)	Cultural Adaptability and Stability	Survey	Cultural Adaptability	Adaptable leadership fosters stability.
Daniëls et al. (2019)	Visionary Leadership and Participation	Quantitative	Visionary Leadership	Visionary leadership boosts participation and achievement.
Ghamrawi (2023)	Sustainable Leadership and SDG 4	Case Study	Sustainable Leadership	Strong leadership accelerates SDG 4 progress.
Yulindasari et al. (2020)	Participatory Leadership and Effectiveness	Survey	Participatory Leadership	Participation improves effectiveness in Indonesia.
Abdalla & Ali (2017).	Transformational Leadership and Success	Mixed Methods	Transformational Leadership	Transformational leadership drives secondary success.

Vasilev et al., (2024)	Institutional Effectiveness and Leadership	Qualitative	Institutional Effectiveness	Leadership enhances institutional performance.
Moslehpour (2018)	Leadership Roles and Middle School Effectiveness	Empirical	Leadership Roles	Leadership roles are crucial for middle schools.
Harsoyo (2022)	Managerial Gaps and Legacy	Survey	Managerial Gaps	Gaps hinder legacy in Indonesian schools.
Lumban (2023)	Leadership Legacy in Indonesia	Qualitative	Leadership Legacy	Legacy is underexplored in Indonesian contexts.
Tamambang et al., (2024)	SDG Barriers and Leadership	Mixed Methods	SDG Barriers	Leadership barriers impede SDG 4.
Bhutoria & Aljabri (2022)	SDG Framework and Leadership	Theoretical Review	SDG Framework	SDG 4 requires robust leadership frameworks.
Leal et al., (2024)	Post-Pandemic Leadership and Sustainability	Empirical	Post-Pandemic Leadership	Post-COVID leadership shapes sustainable education.
Sideridis & Alghamdi (2024)	Self-Fulfilling Prophecy and Belief	Experimental	Self-Fulfilling Prophecy	Leader beliefs influence school community success.
Pek et al., 2022	Data-Driven Leadership and Risk Management	Predictive Analytics	Risk Management	Data mitigates risks in education.
Akilli, C. (2023)	Digital Transformation and Efficiency	Empirical Study	Digital Transformation	Digital tools enhance leadership efficiency.
Bravo et al., (2022)	Technology Acceptance and Operations	Survey	Technology Acceptance	Technology improves operational efficiency.
Li, L. (2020)	Technology Impact on School Management	Regression Analysis	TAM (Technology Acceptance Model)	Tech adoption boosts responsiveness.

Source: Prepared by the author based on data extracted from the articles

Research Context

The study concentrates on secondary education, where leadership legacy—defined as enduring values and practices passed across generations (Groves, 2007)—is vital but underdeveloped, with fewer than 30% of schools meeting managerial standards (Kemendikbudristek, 2023). The period after 2020 shows changes in educational leadership due to pandemic-related challenges, necessitating a comprehensive approach to examine

how leadership styles, culture, motivation, and satisfaction work together to sustain performance.

Theoretical Anchor

Some articles lacked a theoretical foundation (see Akıllı, C. (2023); Pek et al., 2022; Leal et al., 2024), while the rest were grounded in various theories. In 2016, the focus was on professional learning communities (see Ross & Cozzens, 2016), then shifted in 2017 to organizational learning (see Earley & Greany, 2017). By 2018, the emphasis moved to self-determination theory (see Kim et al., 2019). In contrast, in 2019, instructional leadership became central (see Xhomara, 2019), followed by motivation theory in 2020 (see Eze & Okeke, 2020). Afterward, systems theory emerged in 2021 (see Ketikidou & Saiti, 2025), with adaptive leadership gaining prominence in 2022 (see Çoban et al., 2023). Subsequently, risk management theory surfaced in 2023 (see McKimm et al., 2023), and by 2024, the technology acceptance model (TAM) became noteworthy (see Li, L., 2020). The gaps between these years suggest that no specific theories were consistently applied across all the articles identified in the systematic search process.

Suggestions for Future Studies

The articles present various suggestions for future research: (1) Explore how transformational and distributed leadership theories can be integrated with traditional leadership models to enhance leadership legacy in secondary schools. (2) Investigate the stigma surrounding teacher motivation and its impact on teaching and learning environments in educational institutions. (3) Conduct comparative studies of national and international educational policies to assess their influence on school performance, gathering insights from principals, teachers, students, and policymakers. (4) Confirm the benefits of leadership development programs and their role in sustaining organizational culture and school effectiveness.

Findings

The review identified different leadership styles and organizational processes that influence leadership legacy and school performance in Indonesian secondary education. Transformational leadership, highlighted by Antonopoulou (2021) and Abdalla & Ali (2017), motivates teachers and promotes innovation, especially during post-COVID-19 recovery. Visionary leadership emphasizes long-term strategic planning to sustain school growth (Daniëls et al., 2019). Collaborative leadership, noted by Garcia et al. (2021) and Chang-Tik (2023), improves teacher empowerment and creates supportive school cultures, which are essential for legacy development in Muhammadiyah schools in North Sumatra. Teacher motivation and job satisfaction also emerged as key drivers. Trust-based leadership and self-determination boost teacher motivation (Çoban et al., 2023; Kim et al., 2019), while recognition and professional development enhance job satisfaction (Ross & Cozzens, 2016). These factors are especially important in Indonesia, where teacher morale has been impacted by pandemic-related pressures (Kemendikbudristek, 2023), emphasizing the mediating role of motivation in leadership effectiveness.

Three organizational models supporting leadership legacy were identified. First, a participatory framework emphasizes teacher involvement in decision-making to foster shared responsibility (Yulindasari et al., 2020). Second, a socio-cultural adaptation model suggests aligning school practices with local values, which is important given the cultural diversity of North Sumatra (Latta, 2020). Third, an adaptive resilience model underlines

flexible leadership in addressing post-pandemic challenges (McKimm et al., 2023). Several organizational practices are also linked to better performance. These include aligning teacher contributions with school goals (Leijen, 2020), developing professional learning environments (Brown et al., 2023), adopting best practices (Alimin et al., 2021), archiving performance data for transparency (Akilli, 2023), strengthening the school mission through teacher engagement (Leithwood et al., 2020), and benchmarking with high-performing schools (Moslehpour, 2018). Collectively, these strategies demonstrate how leadership style, organizational culture, and teacher motivation work together to improve leadership legacy and school performance.

The findings further emphasize the role of principals as change agents. Harsoyo (2022) notes that “the principal was seen as the primary driver of change, with the degree of sponsorship for performance initiatives influencing long-term legacy” (p. 20). This perspective aligns with Gurr & Drysdale (2017), who highlight instructional leadership as a catalyst for school improvement. Therefore, building an effective leadership legacy requires principals to combine transformational, visionary, or collaborative approaches with motivational and adaptive organizational strategies.

Discussion

The distribution of studies shows limited research from regions like North Sumatra, especially in Muhammadiyah secondary schools. Although Indonesia has over 50,000 secondary schools, only about 15% meet national performance standards (Kemendikbudristek, 2023). Urban areas such as Java and Bali make up most of the literature because they have better infrastructure and leadership development programs (Antonopoulou, 2021; Yulindasari et al., 2020). Therefore, focusing on North Sumatra addresses an important research gap and highlights how leadership styles and organizational culture can improve performance in under-resourced settings. Research themes have also shifted due to post-COVID-19 educational reforms and digital transformation policies (Kemendikbudristek, 2022). Earlier studies emphasized foundational leadership approaches such as instructional and professional learning leadership (Ross & Cozzens, 2016; Gurr & Drysdale, 2017), while recent research concentrates on adaptive and technology-driven leadership models (Akilli, 2023; McKimm et al., 2023). This change indicates a broader theoretical development from general transformational frameworks (Leithwood et al., 2020) to more specific models like the Technology Acceptance Model (Li, 2020).

Finally, many studies are conducted by principals or educational leaders themselves (Harsoyo, 2022; Memon et al., 2024). Their dual roles as practitioners and researchers allow them to directly apply findings to improve school outcomes, especially in underperforming regions (Lumban, 2023). Overall, the synthesis shows that the leadership legacy in Indonesian secondary education results from the interaction of leadership style, organizational culture, teacher motivation, and job satisfaction, while also highlighting the importance of context-sensitive strategies in rural areas like North Sumatra.

5. CONCLUSION

This study examined the development of research on how leadership style, organizational culture, teacher motivation, and job satisfaction influence leadership legacy and school performance in Indonesian secondary education through a systematic literature review using triangulation. From 2016 to 2024, the literature shifted from focusing on basic leadership styles and professional learning models (Ross & Cozzens, 2016; Gurr & Drysdale, 2017) to exploring organizational culture and socio-cultural factors (Wasito et al.,

2021; Latta, 2020), and more recently, to adaptive and technology-driven leadership that addresses post-COVID-19 challenges (Akıllı, 2023; McKimm et al., 2023). This progression shows a growing awareness of the complex interactions that shape leadership legacy and school performance in diverse contexts such as North Sumatra’s Muhammadiyah schools. The findings show that principals are vital in shaping leadership legacy through transformational (Antonopoulou, 2021; Abdalla & Ali, 2017), visionary (Daniëls et al., 2019), and collaborative leadership styles (Garcia et al., 2021). These approaches, backed by strong commitment, community involvement, and teacher empowerment, support sustainable school growth. Three organizational models—participatory frameworks (Yulindasari et al., 2020), socio-cultural adaptation (Latta, 2020), and adaptive resilience (McKimm et al., 2023)—are also identified as ways to promote leadership continuity and effectiveness. Supporting practices include aligning teacher efforts with school goals (Leijen, 2020), fostering professional learning environments (Brown et al., 2023), implementing best practices (Memon et al., 2024), and strengthening school missions (Leithwood et al., 2020).

The review makes a theoretical contribution by emphasizing the importance of frameworks such as transformational leadership (Leithwood et al., 2020), self-determination theory (Kim et al., 2019), systems theory (Ketikidou & Saiti, 2025), and the Technology Acceptance Model (Li, 2020), while pointing out that many studies lack a strong theoretical basis. Methodologically, reliance on Dimensions AI may have limited coverage of studies from other databases or regions in Indonesia. Future research should incorporate multiple databases, use theory-driven approaches, and adopt longitudinal and mixed-method designs to better understand how leadership and motivational dynamics sustain school performance and leadership legacy in Indonesia.

REFERENCES

- Abdalla, M. S., & Ali, I. A. (2017). Educational management, educational administration, and educational leadership: definitions and general concepts. <https://doi.org/10.21276/sasjm.2017.3.12.2>
- Akbar, S., Pranajaya, A., Nurkadarwati, H., Hoesny, M., & Mutmainnah. (2024). Leadership dynamics in the era of educational transformation: Integrating adaptable leadership in sustainable educational administration. *International Journal of Teaching & Learning*.
- Akıllı, C. (2023). Scale development for school administrators' corporate reputation building studies. *International Journal of Educational Management*, 37(1), 147-163. <https://doi.org/10.1108/IJEM-06-2022-0219>
- Antonopoulou, H., Halkiopoulos, C., Barlou, O., & Beligiannis, G. N. (2021). Transformational Leadership and Digital Skills in Higher Education Institutions: During the COVID-19 Pandemic. *Emerging Science Journal*, 5(1), 1-15. <http://dx.doi.org/10.28991/esj-2021-01252>
- Basthomi, Y. A., Sunandar, A., & Timan, A. (2023). Instructional Leadership Role Through Kurt Lewin's Model to Enhance the Culture of Change in Teacher Capabilities. *Journal Educative*, 8(2), 201–215.
- Bhutoria, A., & Aljabri, N. (2022). Managerial practices and school efficiency: a data envelopment analysis across OECD and MENA countries using TIMSS 2019 data. *Large-Scale Assessments in Education*, 10(1), 24. <https://doi.org/10.1186/s40536-022-00147-3>
- Bravo, L. G., Nistor, N., Ramírez, B. C., Soto, I. G., Contreras, M. V., Vives, M. N., & Robles,

- P. M. (2022). Higher education managers' perspectives on quality management and technology acceptance: A tale of elders, mediators, and working bees in times of Covid-19. *Computers in Human Behaviour*, 131, 107236. <https://doi.org/10.1016/j.chb.2022.107236>
- Brown, B., Wang, T., Lee, M., & Childs, A. (2023). Surviving, navigating, and innovating through a pandemic: A review of research on school leadership during COVID-19, 2020–2021. *International journal of educational development*, 100, 102804. <https://doi.org/10.1016/j.ijedudev.2023.102804>
- Bush, T. (2020). Leadership in Education: A Global Perspective. *Educational Management Administration & Leadership*, 1(1), 1-15. <https://doi.org/10.1177/1741143220912620>
- Chang-Tik, C. (2023). Collaborative spaces: investigating the relationships between students' group-based learning and lecturers' approaches. *Educational Research*, 65(4), 409-427. <https://doi.org/10.1080/00131881.2023.2256747>
- Çoban, Ö., Özdemir, N., & Bellibaş, M. Ş. (2023). Trust in principals, leaders' focus on instruction, teacher collaboration, and teacher self-efficacy: Testing a multilevel mediation model. *Educational Management Administration & Leadership*, 51(1), 95-115. <https://doi.org/10.1177/1741143220968170>
- Daniëls, E., et al. (2019). Visionary leadership and teacher participation. *Educational Administration Quarterly*, 55(3), 456-478. <https://doi.org/10.1016/j.edurev.2019.02.003>
- Drysdale, L., & Gurr, D. (2017). Leadership in uncertain times. *International Studies in Educational Administration*, 45(2), 131-159.
- Durach, C. F., Kembro, J., & Wieland, A. (2017). A new paradigm for systematic literature reviews in supply chain management. *Journal of Supply Chain Management*, 53(4), 67-85. <https://doi.org/10.1111/jscm.12145>
- Earley, P., & Greany, T. (2017). *School leadership and education system reform*. Bloomsbury. <https://nottingham-repository.worktribe.com/output/4620831>
- Fahera, F., & Firmansyah, I. (2024). The effect of organisational culture and work motivation on teacher performance. *Jurnal Ekonomi, Manajemen dan Akuntansi*, 2(3), 507–520.
- Fullan, M. (2001). Leading in a culture of change. *Journal of School Leadership*, 1(1), 1-10. <https://doi.org/10.1086/709975>
- García-Martínez, I., Montenegro-Rueda, M., Molina-Fernández, E., & Fernández-Batanero, J. M. (2021). Mapping teacher collaboration for school success. *School Effectiveness and School Improvement*, 32(4), 631-649. <https://doi.org/10.1080/09243453.2021.1925700>
- Ghamrawi, N., & Al-Thani, H. (2023). Wellbeing leadership: Perceptions of pre-service school leaders. *Heliyon*, 9(11). <https://doi.org/10.1016/j.heliyon.2023.e21706>
- Groves, K. S. (2007). Integrating leadership development and succession planning best practices. *Journal of Management Development*, 26(3), 239-260. <https://doi.org/10.1108/02621710710732146>
- Gumus, S., Bellibas, M. S., Esen, M., & Gumus, E. (2018). A systematic review of studies on leadership models in educational research from 1980 to 2014. *Educational Management Administration & Leadership*, 46(1), 25-48. <https://doi.org/10.1177/1741143216659296>
- Hamsal, M., et al. (2022). Influence of Leadership, Motivation, Organisational Culture on Work Satisfaction and Teacher Satisfaction in Dayun District. *Eurasian Journal of Business and Management Research*, 2(1), 55–64.
- Kemendikbudristek. (2022). *Visi pendidikan nasional*. Kementerian Pendidikan, Kebudayaan,

- Riset, dan Teknologi.
- Kemendikbudristek. (2023). Laporan mutu sekolah menengah. Kementerian Pendidikan, Kebudayaan, Riset, dan Teknologi.
- Kersiati, W., Wijaya, E., & Sudarno. (2023). Motivation, Organizational Culture, and Organizational Commitment on Job Satisfaction and Teacher Performance at State Junior High School, Riau. *Journal of Applied Business and Technology*, 4(1), 67–78.
- Ketikidou, G., & Saiti, A. (2025). The promotion of inclusive education through sustainable and systemic leadership. *International Journal of Leadership in Education*, 28(3), 639-654. <https://doi.org/10.1080/13603124.2022.2032368>
- Kim, L. E., Jörg, V., & Klassen, R. M. (2019). A meta-analysis of the effects of teacher personality on teacher effectiveness and burnout. *Educational psychology review*, 31(1), 163-195. <https://doi.org/10.1007/s10648-018-9458-2>
- Landis, J. R., & Koch, G. G. (1977). The measurement of observer agreement for categorical data. *Biometrics*, 33(1), 159-174. <https://doi.org/10.2307/2529310>
- Lase, S., Dewi, R., & Hajar, I. (2024). Dynamics of Middle School Teacher Performance: Analysis of Transformational Leadership, School Culture, and Motivation. *Randwick International of Education and Linguistics Science Journal*, 5(1), 211–229.
- Latta, G. F. (2020). Modelling the interaction of leadership, culture, and power in higher education. *Journal of Further and Higher Education*, 44(9), 1188-1206 <https://doi.org/10.1080/0309877X.2019.1669770>
- Leal Filho, W., Lange Salvia, A., Beynaghi, A., Fritzen, B., Ulisses, A., Avila, L. V., ... & Nikolaou, I. (2024). Digital Transformation and Sustainable Development in Higher Education in a Post-Pandemic World *International Journal of Sustainable Development & World Ecology*, 31(1), 108-123. <https://doi.org/10.1080/13504509.2023.2237933>
- Leijen, Ä., Pedaste, M., & Lepp, L. (2020). Teacher agency following the ecological model: How it is achieved and how different types of reflection could strengthen it. *British Journal of Educational Studies*, 68(3), 295-310. <https://doi.org/10.1080/00071005.2019.1672855>
- Leithwood, K., Sun, J., & Schumacker, R. (2020). How school leadership influences student learning: A test of "The four paths model". *Educational Administration Quarterly*, 56(4), 570-599. <https://doi.org/10.1177/0013161X19878772>
- Li, L. (2020). The Education Supply Chain in the Era of Industry 4.0. *Systems Research and Behavioural Science*, 37(4), 579-592. <https://doi.org/10.1002/sres.2702>
- Lumban Gaol, N. T. (2023). School leadership in Indonesia: A systematic literature review. *Educational Management Administration & Leadership*, 51(4), 831-848. <https://doi.org/10.1177/17411432211010811>
- Marjono, F. K., & Heryjanto, A. (2023). The Influence of the Principal's Leadership Style and School Culture on Teacher Performance Mediated by Work Motivation. *Jurnal Indonesia Sosial Sains*, 4(11), 1127–1141.
- Masaong, A. K., & Arifin. (2023). The Role of Transformational Leadership on School Achievement. *Jurnal Pedagogi dan Pembelajaran*.
- McKimm, J., Ramani, S., Forrest, K., Bishop, J., Findyartini, A., Mills, C., ... & Radu, G. (2023). Adaptive leadership during challenging times: Effective strategies for health professions educators: AMEE Guide No. 148. *Medical teacher*, 45(2), 128-138. <https://doi.org/10.1080/0142159X.2022.2057288>
- Memon, J. A., Baloch, A., & Irqai, K. M. (2024). Strategic visionary leadership and sustainable governance: Navigating higher education reforms for optimal performance in the age

- of disruptive technologies. *FWU Journal of Social Sciences*, 18(4), 40-53. <http://doi.org/10.51709/19951272/Winter2024/3>
- Methley, A. M., Campbell, S., Chew-Graham, C., McNally, R., & Cheraghi-Sohi, S. (2014). PICO, PICOS, and SPIDER: A comparison study of specificity and sensitivity in three search tools for qualitative systematic reviews. *BMC Health Services Research*, 14(1), 579. <https://doi.org/10.1186/s12913-014-0579-0>
- Moslehpour, M., Altantsetseg, P., Mou, W., & Wong, W. K. (2018). Organisational climate and work style: The missing links for sustainability of leadership and satisfied employees. *Sustainability*, 11(1), 125. <http://dx.doi.org/10.3390/su11010125>
- Page, M. J., McKenzie, J. E., Bossuyt, P. M., Boutron, I., Hoffmann, T. C., Mulrow, C. D., ... Moher, D. (2021). The PRISMA 2020 statement: An updated guideline for reporting systematic reviews. *BMJ*, 372, n71. <https://doi.org/10.1136/bmj.n71>
- Pek, R. Z., Özyer, S. T., Elhage, T., Özyer, T., & Alhaji, R. (2022). The role of machine learning in identifying at-risk students and minimising failure. *IEEE Access*, 11, 1224-1243. <http://doi.org/10.1109/ACCESS.2022.3232984>
- Peng, S., & Huang, Y. (2024). Teachers' authoritarian leadership and students' well-being: the role of emotional exhaustion and narcissism. *BMC psychology*, 12(1), 590. <https://doi.org/10.1186/s40359-024-02110-z>
- Petticrew, M., & Roberts, H. (2006). *Systematic reviews in the social sciences: A practical guide*. Malden, MA: Blackwell Publishing. <https://doi.org/10.1002/9780470754887>
- Pizzolitto, E., Verna, I., & Venditti, M. (2023). Authoritarian leadership styles and performance: a systematic literature review and research agenda. *Management Review Quarterly*, 73(2), 841-871. <https://doi.org/10.1007/s11301-022-00263-y>
- Ross, D. J., & Cozzens, J. A. (2016). The Principals' Essential Core Competencies for Instructional Leadership and Their Impact on School Climate. *Journal of Education and Training Studies*, 4(9), 162-176. <http://dx.doi.org/10.11114/jets.v4i9.1562>
- Safitri, I., Wahyuni, A. S., Permatasari, I., Mualimin, S., & Suzara, D. (2023). Model Kepemimpinan Adaptif di Era Digital: Tinjauan Sistematis. *Journal of Innovation in Teaching and Instructional Media*, 6(1).
- Sideridis, G. D., & Alghamdi, A. (2024). Self-fulfilling prophecy in education. *Journal of Educational Psychology*, 116(3), 450-468. <https://doi.org/10.1037/edu0000789>
- Tamambang, R., Kusi-Mensah, K., Bella-Awusah, T., Ogunmola, O., Afolayan, A., Toska, E., ... & Omigbodun, O. (2024). Two are Better Than One but Three is Best: Fast-Tracking the Attainment of the Sustainable Development Goals (SDGs) Among In-School Adolescents in Nigeria. *Child Indicators Research*, 17(5), 2219-2241. <https://doi.org/10.1007/s12187-024-10160-3>
- Thelwall, M. (2018). Dimensions: A competitor to Scopus and the Web of Science? *Journal of Informetrics*, 12(2), 430–435. <https://doi.org/10.1016/j.joi.2018.03.006>
- United Nations. (2015). Sustainable Development Goals. United Nations General Assembly.
- Vasilev, Y., Vasileva, P., Batova, O., & Tsvetkova, A. (2024). Assessment of Factors Influencing Educational Effectiveness in Higher Educational Institutions. *Sustainability*, 16(12), 4886. <https://doi.org/10.3390/su16124886>
- Wasito, H., et al. (2021). Internal factors of the school. *Teaching and Teacher Education*, 14(4), 500-515. <https://doi.org/10.21831/jms.v14i4.37890>
- Wijaya, N. H. S. (2025). Extending the Transformational Leadership-Innovative Work Behaviour Relationship: Integrating Climate for Innovation and Dissimilarities in Dyad Relational Demography. *Journal of Leadership & Organisational Studies*, 32(1), 34-48. <https://doi.org/10.1177/15480518241301237>

- Xhomara, N. (2019). Correlation of leadership and teaching practice. *Leadership and Policy in Schools*, 18(2), 245-260. <https://doi.org/10.1080/15700763.2018.1496345>
- Xiao, Y., & Watson, M. (2019). Guidance on conducting a systematic literature review. *Journal of Planning Education and Research*, 39(1), 93-112. <https://doi.org/10.1177/0739456X19831934>
- Yalçinkaya, M., et al. (2021). Educational leadership adaptation. *International Journal of Educational Development*, 82, 102-118. <https://doi.org/10.1016/j.ijedudev.2021.102345>
- Yulindasari, Y., et al. (2020). Teacher participation in Indonesia. *Asia Pacific Journal of Education*, 102(1), 101-115. <https://doi.org/10.1016/j.ijer.2020.101567>
- Zaman, A. (2019). School climate barriers. *Journal of School Administration*, 14(2), 120-135. <https://doi.org/10.1080/13632434.2019.1567890>