

Teacher Job Performance across Primary, Secondary, and Tertiary Education: A Systematic Review of Determinants and Mechanisms

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DOI: <https://dx.doi.org/10.47772/IJRISS.2025.910000194>

Received: 20 October 2025; Accepted: 27 October 2025; Published: 07 November 2025

ABSTRACT

This systematic review synthesizes 44 empirical studies (2021–2025) on teacher job performance across primary, secondary, and tertiary education worldwide. This study maps determinants into three blocks: individual (motivation, self-efficacy, satisfaction), organizational (leadership, supervision, culture, climate, compensation, appraisal, work–life), and contextual (policy, technology, telework). Using a pre-registered protocol, dual screening, and a coded evidence matrix, this study classifies effects by direction and significance, weight findings by study quality, and compare patterns across tiers and regions. Results show consistent positive effects for instructional and transformational leadership, supportive climate, and self-efficacy. Compensation and work–life associations are mixed and context dependent. Digital contexts introduce affective pathways through happiness, engagement, and emotion regulation. At the end, this study provides a cross-tier benchmark and propositions to guide policy and institutional practice.

Keywords: Teacher job performance; Instructional leadership; School climate; Self-efficacy; Compensation and work–life; Systematic review

INTRODUCTION

Teacher job performance shapes instructional quality and student outcomes across primary, secondary, and tertiary education, yet its drivers span individual, organizational, and contextual layers. Leadership and school climate repeatedly associate with higher task and citizenship performance, and can translate into improved achievement through the physical environment (Dutta & Sahney, 2022; Wardana et al., 2024). Transformational and instructional leadership, supervision, and managerial competence link to better teacher productivity and performance (Purwanto, 2022; Firmansyah et al., 2022; Singerin, 2021; Azainil et al., 2021). Individual mechanisms such as self-efficacy, motivation, satisfaction, and engagement also predict performance, although magnitudes vary (Akman, 2021; Sadeghi et al., 2021; Sudirman et al., 2021; Novitasari et al., 2021; Lie et al., 2021; Lumanug II & Dimla, 2021). In higher education, attitude to digital technology and happiness relate to lecturers' performance, while teleworking heightens the role of perceived student engagement and emotion regulation (Bangun et al., 2021; Obrad & Circa, 2021; Wang et al., 2025).

Evidence on compensation, appraisal, and work–life conditions is mixed across settings, which complicates policy transfer. Income security schemes associate with higher performance, while basic pay and bonuses can be weak or insignificant in some school contexts; salary satisfaction and credible appraisal matter in university settings (Zikanga et al., 2021; Sancoko et al., 2023; Sinniah et al., 2022). Work–life balance supports performance in some samples, but family–work conflict is harmful and balance is not uniformly predictive (Al-Alawi et al., 2021; Ridwan et al., 2022; Kahpi et al., 2024). Several studies note contextual novelty or limited local evidence, underscoring fragmentation across tiers and regions (Dutta & Sahney, 2022; Puruwita et al., 2022). This literature review synthesizes 44 empirical studies published from 2021 to 2025 to identify recurrent determinants and the mediating or moderating mechanisms that link them to teacher performance across tiers, and to develop a cross-tier benchmark for leaders and policymakers worldwide.

Problem Statement

Teacher job performance is uneven across primary, secondary, and tertiary education, with fragmented determinants and inconsistent mechanisms. Leadership, supervision, and school climate shape outcomes yet show varied effects across contexts and tiers (Dutta & Sahney, 2022; Singerin, 2021; Akman, 2021). Compensation and income security influence performance, although effects differ and can be weak without broader supports (Ridwan et al., 2022; Zikanga et al., 2021). Motivation, self-efficacy, and job satisfaction predict performance, but pathways and interactions are mixed across studies (Sudirman et al., 2021; Sadeghi et al., 2021; Lumanug II & Dimla, 2021; Purwanto, 2022). Digital and teleworking shifts add pressures and mediators, including happiness and engagement, which institutions often underutilize (Obrad & Circa, 2021; Bangun et al., 2021). Without a cross-tier synthesis, policymakers, leaders, and higher education managers lack levers to improve learning and equity, which creates urgency for an evidence map (Sinniah et al., 2022; Subarto et al., 2021).

Research Objectives

1. RO1: To synthesize empirical evidence on determinants of teacher job performance across primary, secondary, and tertiary settings.
2. RO2: To map reported mediators and moderators, assess their consistency across tiers, and propose an evidence-informed conceptual framework.

Research questions

1. RQ1: What individual, organizational, and contextual determinants of teacher job performance recur across primary, secondary, and tertiary education?
2. RQ2: Which mediators and moderators are reported to link these determinants to teacher job performance, and how consistently across tiers?

Limitations

This review has several manageable limitations. First, it includes only English-language sources published from 2021 to 2025, which may omit earlier or non-English evidence while keeping the synthesis contemporary. Second, the scope centers on empirical studies of teacher job performance across primary, secondary, and tertiary tiers, so highly specialized subfields or qualitative case work may be underrepresented. Third, heterogeneity in constructs, instruments, and contexts limits direct comparability and precludes a full rigorous meta-analysis. Fourth, reliance on indexed databases and published articles may miss gray literature or in-progress work. Finally, while this study maps determinants and mechanisms, no causal generalization across countries is claimed. These constraints are modest and transparent, and they guide cautious interpretation and clear avenues for future updates.

LITERATURE REVIEW

Underlying Theories

Across the included journals, performance is framed through leadership, organizational climate, culture, supervision, compensation, and work design lenses. Instructional and transformational leadership feature as central mechanisms that shape teacher task and extra-role performance and the school climate that supports it (Dutta & Sahney, 2022; Purwanto, 2022; Firmansyah et al., 2022). Studies also link managerial competence, supervision, and discipline to productivity and performance (Azainil et al., 2021; Singerin, 2021). Organizational culture, climate, and commitment appear as mediating or co-determinant constructs in university and school settings (Subarto et al., 2021; Zamin & Hussin, 2021; Wardana et al., 2024). Compensation, income security, and performance appraisal connect to performance and satisfaction with mixed magnitudes, which points to contextual contingencies (Ridwan et al., 2022; Zikanga et al., 2021; Sancoko et al., 2023; Fitriady et al., 2023; Sriadmitum, 2023).

Individual-level perspectives emphasize motivation, job satisfaction, self-efficacy, engagement, and affect. Several studies model satisfaction and motivation as pathways to performance, with some null or weak links that vary by setting and variable position (Sudirman et al., 2021; Novitasari et al., 2021; Lie et al., 2021; Ramadona et al., 2021; Gusriani et al., 2022; Arifin, 2021). Self-efficacy emerges repeatedly as a robust predictor or moderator of performance and as a target of leadership influence (Akman, 2021; Sadeghi et al., 2021; Singerin, 2021; Sinniah et al., 2022). Work-life interface and stress models appear in school and higher education, with work-family conflict, work-life balance, and stress relating to performance in tier-specific ways (Al-Alawi et al., 2021; Fahmi et al., 2022). Digital and teleworking contexts add affective routes through happiness, emotion regulation, and perceived student engagement, which shape engagement and performance (Bangun et al., 2021; Obrad & Circa, 2021; Wang et al., 2025). Finally, certification and principal supervision reflect credentialing and oversight logics that connect variably to performance through satisfaction and motivation (Sudirman et al., 2021; Lie et al., 2021).

Conceptual Lens

At the individual level, empirical findings foreground motivation, job satisfaction, self-efficacy, work engagement, and affect. Motivation and satisfaction are modeled as antecedents or mediators of performance, with some paths non-significant in certain settings (Sudirman et al., 2021; Novitasari et al., 2021; Lie et al., 2021; Ramadona et al., 2021; Gusriani et al., 2022). Self-efficacy predicts performance and sometimes moderates other links (Akman, 2021; Sadeghi et al., 2021; Singerin, 2021; Sinniah et al., 2022). Dispositions toward loving pedagogy, emotion regulation, and self-efficacy relate to engagement, which supports performance claims in allied work (Wang et al., 2025). Happiness mediates between digital attitudes and job performance among lecturers, and partially between satisfaction and performance (Bangun et al., 2021). Telework context highlights perceived student engagement as a driver of teacher engagement (Obrad & Circa, 2021). Work experience moderates the motivation-performance link in places, with mixed patterns by sector (Layek & Koodamara, 2024). Stress interacts with demographics and shows tier-specific effects on performance (Aduma et al., 2022; Fahmi et al., 2022). Professional and personality factors, and student-oriented pedagogy, are also positioned as individual determinants (Baety, 2021; Rahman & Indahyanti, 2021).

Organizational determinants include leadership, supervision, managerial competence, culture, climate, commitment, compensation, appraisal, work-life balance, and HR practices. Instructional leadership operates through climate and teacher in-role performance toward achievement (Dutta & Sahney, 2022). Transformational leadership, competence, and self-efficacy relate positively to performance in primary settings, and a meta-analysis links transformational leadership to satisfaction, commitment, and self-efficacy (Purwanto, 2022; Firmansyah et al., 2022). Managerial competence and teacher discipline predict productivity, and academic supervision links to competence and performance with efficacy moderation in part (Azainil et al., 2021; Singerin, 2021). University and school studies place climate, culture, and commitment as pathways to satisfaction and performance (Subarto et al., 2021; Zamin & Hussin, 2021; Wardana et al., 2024). Compensation, appraisal, and income security show positive associations in several cases, though magnitudes vary by indicator and context (Ridwan et al., 2022; Zikanga et al., 2021; Sancoko et al., 2023; Fitriady et al., 2023). Work-life balance and family-work dynamics appear as relevant organizational conditions, with satisfaction and performance effects contingent on direction of conflict (Al-Alawi et al., 2021).

Contextual determinants reflect policy and technology shifts, teleworking arrangements, market and institutional settings, and credentialing regimes. Digital change and online delivery position technology attitudes, perceived student engagement, and emotion regulation as salient to engagement and performance across tiers (Obrad & Circa, 2021; Bangun et al., 2021; Wang et al., 2025). Work From Home policy implicates motivation, discipline, and stress in performance patterns during disruptions (Fahmi et al., 2022). Work environment quality appears in school and district studies with varied direct effects on performance and satisfaction (Novitasari et al., 2021; Sriadmitum, 2023). Certification and principal supervision represent oversight context with indirect and direct routes through satisfaction and motivation (Sudirman et al., 2021; Lie et al., 2021). Broader institutional and HR configurations in higher education, including diversity climate and standardized practices, align with job satisfaction and performance links among lecturers and staff (Tunio et al., 2021; Mustafa et al., 2021). Reviews of internal versus external performance factors further situate individual and contextual elements for teaching work worldwide (Wulan, 2024).

Evidence Landscape

Table 1: Evidence Landscape of Included Studies, 2021–2025 (n = 44)

Focus	What the papers cover	Representative sources
Tiers and regions	Primary and secondary in Indonesia, India, Nigeria, Uganda, Romania, Saudi Arabia, Pakistan, Iran. Tertiary in Malaysia, Indonesia, Oman, Pakistan, Nigeria.	Dutta & Sahney, 2022; Ridwan et al., 2022; Novitasari et al., 2021; Zikanga et al., 2021; Al-Alawi et al., 2021; Okolocha et al., 2021; Sancoko et al., 2023; Fitriady et al., 2023
Core determinants	Leadership, supervision, managerial competence, culture, climate, compensation, appraisal, work–life, motivation, self-efficacy, satisfaction, engagement.	Azainil et al., 2021; Singerin, 2021; Subarto et al., 2021; Zamin & Hussin, 2021; Ridwan et al., 2022; Sinniah et al., 2022; Purwanto, 2022; Wardana et al., 2024
Methods and samples	Quantitative designs dominate: SEM-PLS, CB-SEM, regression, ANN, correlation. Sampling includes purposive, simple random, census, stratified. Sample sizes 50 to 1,780; one study adds 1,500 student ratings.	Novitasari et al., 2021; Dutta & Sahney, 2022; Sriadmitum, 2023; Singerin, 2021; Lumanug II & Dimla, 2021; Wardana et al., 2024
Outcomes used	Teacher performance, task and citizenship performance, teaching effectiveness, productivity, lecturer performance. Some studies link to student achievement or engagement proxies.	Dutta & Sahney, 2022; Sadeghi et al., 2021; Azainil et al., 2021; Bangun et al., 2021; Obrad & Circa, 2021
Mechanisms	Mediators: satisfaction, commitment, climate pathways, happiness, motivation, work engagement. Moderators: self-efficacy, job satisfaction, work experience, stress by demographics.	Subarto et al., 2021; Zamin & Hussin, 2021; Novitasari et al., 2021; Ramadona et al., 2021; Sinniah et al., 2022; Layek & Koodamara, 2024; Aduma et al., 2022
Context notes	Compensation and work–life show mixed effects by indicator and sector. Digital and telework contexts elevate engagement and emotion regulation.	Ridwan et al., 2022; Zikanga et al., 2021; Sancoko et al., 2023; Fitriady et al., 2023; Kahpi et al., 2024; Wang et al., 2025; Obrad & Circa, 2021; Bangun et al., 202

Source: Author, 2025

Across tiers and regions, empirical studies cover primary and secondary teachers in Indonesia, India, Nigeria, Uganda, Romania, Saudi Arabia, Pakistan, and Iran, and lecturers in Malaysia, Indonesia, Oman, Pakistan, and Nigeria. School-tier studies examine instructional or transformational leadership, supervision, climate, culture, compensation, and certification with samples from 90 to 375 teachers and 302 schools (Dutta & Sahney, 2022; Ridwan et al., 2022; Novitasari et al., 2021; Sudirman et al., 2021; Lie et al., 2021; Sriadmitum, 2023; Azainil et al., 2021; Wardana et al., 2024; Al-Alawi et al., 2021; Fahmi et al., 2022; Zikanga et al., 2021). Tertiary-tier studies focus on lecturers' satisfaction, motivation, self-efficacy, leadership, climate, commitment, diversity climate, appraisal, and work–life balance with samples from 66 to 413, plus one 390-respondent civil-service cohort and a 343-respondent PHEI survey (Okolocha et al., 2021; Subarto et al., 2021; Zamin & Hussin, 2021; Mustafa et al., 2021; Tunio et al., 2021; Sancoko et al., 2023; Fitriady et al., 2023; Sinniah et al., 2022; Kahpi et al., 2024). EFL contexts contribute teacher-level evidence on self-efficacy, satisfaction, teaching effectiveness, engagement, and emotion regulation, including a multinational sample of 779 teachers (Sadeghi et al., 2021; Lumanug II & Dimla, 2021; Akman, 2021; Wang et al., 2025). Additional pieces address personality and professionalism, stress with demographic interactions, and technology-linked affect (Baety, 2021; Aduma et al., 2022; Bangun et al., 2021; Rahman & Indahyanti, 2021; Wulan, 2024; Purwanto, 2022; Layek & Koodamara,

2024; Ramadona et al., 2021; Sudadi et al., 2023).

Methods are predominantly quantitative: SEM-PLS, covariance-based SEM, multiple regression, ANN, and correlation, with several studies reporting instrument validity and reliability, and sampling via purposive, simple random, census, or stratified techniques (Ridwan et al., 2022; Novitasari et al., 2021; Dutta & Sahney, 2022; Sriadmitum, 2023; Singerin, 2021; Sinniah et al., 2022; Subarto et al., 2021; Fitriady et al., 2023; Azainil et al., 2021; Purwanto, 2022; Wardana et al., 2024). Outcomes are labeled teacher performance, task and citizenship performance, teaching effectiveness, productivity, or lecturer performance, sometimes linked to student achievement or engagement proxies (Dutta & Sahney, 2022; Sadeghi et al., 2021; Azainil et al., 2021; Bangun et al., 2021; Obrad & Circa, 2021). Samples span 50 to 1,780 for staff surveys and 1,500 student ratings nested under 300 teachers in one design, which adds multi-rater evidence on performance (Lumanug II & Dimla, 2021; Okolocha et al., 2021).

Mediators and moderators recur. Reported mediators include job satisfaction, organizational commitment, climate pathways, happiness, motivation, and work engagement, with direction and strength varying by tier and context (Subarto et al., 2021; Zamin & Hussin, 2021; Dutta & Sahney, 2022; Bangun et al., 2021; Novitasari et al., 2021; Ramadona et al., 2021; Sinniah et al., 2022; Kahpi et al., 2024). Moderators include self-efficacy, job satisfaction, and work experience, as well as stress interacting with demographic factors; several moderation tests are partial or null (Lumanug II & Dimla, 2021; Singerin, 2021; Layek & Koodamara, 2024; Aduma et al., 2022; Al-Alawi et al., 2021). Effects for compensation, basic pay, bonuses, appraisal, and work–life balance are mixed across settings, which underscores contextual dependency rather than a single pattern (Ridwan et al., 2022; Zikanga et al., 2021; Sancoko et al., 2023; Fitriady et al., 2023; Sriadmitum, 2023). Telework and digital contexts surface engagement and emotion regulation as salient correlates of performance-adjacent outcomes (Obrad & Circa, 2021; Wang et al., 2025).

Gaps

Table 2: List of gaps

Gap theme	What it looks like	Why it matters	Representative sources
Single tier, cross sectional, self-report	Few multi-tier or longitudinal designs; heavy survey reliance	Limits causal inference and cross tier comparison	Ridwan et al., 2022; Novitasari et al., 2021; Azainil et al., 2021; Zikanga et al., 2021; Sancoko et al., 2023; Fitriady et al., 2023
Uneven coverage by setting	Context novelty and limited local evidence	Reduces external validity across systems	Dutta & Sahney, 2022; Puruwita et al., 2022; Kahpi et al., 2024; Wang et al., 2025
Leadership effects vary by locale	Mixed strength across regions	Cautions policy transfer without adaptation	Azubuike, 2024; Wardana et al., 2024; Purwanto, 2022; Akman, 2021
Technology and telework segmentation	Platform specific and period bound findings	Hard to generalize digital practice	Obrad & Circa, 2021; Bangun et al., 2021
Construct and measure heterogeneity	Different scales and labels for similar constructs	Complicates synthesis and benchmarking	Subarto et al., 2021; Zamin & Hussin, 2021; Sriadmitum, 2023
Compensation and work life mixed results	Direction depends on indicator and sector	Requires tailored HR design	Ridwan et al., 2022; Zikanga et al., 2021; Sancoko et al., 2023; Fitriady et al., 2023; Al-Alawi et al., 2021

Mediator and moderator inconsistency	Several null or partial effects	Weakens general rules on mechanisms	Sudirman et al., 2021; Novitasari et al., 2021; Lumanug II & Dimla, 2021; Singerin, 2021; Sinniah et al., 2022; Layek & Koodamara, 2024
Diverse performance outcomes	Task, citizenship, effectiveness, productivity, achievement link	Blurs outcome equivalence across studies	Dutta & Sahney, 2022; Azainil et al., 2021; Sadeghi et al., 2021; Okolocha et al., 2021; Baety, 2021; Rahman & Indahyanti, 2021

Source: Author, 2025

Most studies report single-tier, cross-sectional, self-report designs, which limits causal inference and direct cross-tier comparisons (Ridwan et al., 2022; Novitasari et al., 2021; Sriadmitum, 2023; Azainil et al., 2021; Zikanga et al., 2021; Subarto et al., 2021; Sancoko et al., 2023; Fitriady et al., 2023; Mustafa et al., 2021; Tunio et al., 2021; Okolocha et al., 2021; Rahman & Indahyanti, 2021; Gusriani et al., 2022; Ramadona et al., 2021; Singerin, 2021; Fahmi et al., 2022; Al-Alawi et al., 2021). Several studies explicitly note contextual novelty or limited prior work, which underscores uneven coverage by setting and tier (Dutta & Sahney, 2022; Puruwita et al., 2022; Kahpi et al., 2024; Wang et al., 2025). Besides, they also flag design constraints or potential bias, which suggests caution in generalization (Layek & Koodamara, 2024; Sinniah et al., 2022). Leadership style effects vary by locale, which raises external validity questions for policy transfer (Azubuike, 2024; Wardana et al., 2024; Purwanto, 2022; Akman, 2021). Technology and telework variables appear, yet evidence remains segmented across platforms and periods (Obrad & Circa, 2021; Bangun et al., 2021).

Construct and measurement heterogeneity produce mixed results across determinants and mechanisms. Compensation and related facets show divergent patterns across settings and indicators (Ridwan et al., 2022; Zikanga et al., 2021; Sancoko et al., 2023; Fitriady et al., 2023). Work–life constructs yield positive, null, and negative associations depending on direction and context (Al-Alawi et al., 2021; Ridwan et al., 2022; Kahpi et al., 2024). Motivation, satisfaction, and self-efficacy operate as predictors, mediators, or moderators, with several null paths and inconsistent mediation (Sudirman et al., 2021; Novitasari et al., 2021; Lie et al., 2021; Lumanug II & Dimla, 2021; Singerin, 2021; Sadeghi et al., 2021; Sinniah et al., 2022; Layek & Koodamara, 2024). Performance is variously defined as task, citizenship, productivity, teaching effectiveness, or linked to achievement, which complicates synthesis (Dutta & Sahney, 2022; Azainil et al., 2021; Sadeghi et al., 2021; Okolocha et al., 2021; Baety, 2021; Rahman & Indahyanti, 2021). Additional variability appears in innovation-transfer motivation, lecturer-focused models, and null differences in satisfaction drivers (Stumbrienė et al., 2024; Mustafa et al., 2021; Dunggio, 2021; Sulistiarini, 2024).

RESEARCH METHODOLOGY AND ANALYSIS PLAN

This study applies a systematic review of 44 empirical papers from 2021 to 2025 across primary, secondary, and tertiary tiers. Inclusion requires an empirical design, teacher or lecturer samples, job performance outcomes, and English language. Searches cover Scopus, Web of Science, ERIC, and Google Scholar. After deduplication, titles, abstracts, and full texts are screened against a written protocol. A piloted codebook specifies tier, context, constructs, instruments, outcomes, and mechanisms. Study quality is appraised on sampling clarity, measurement validity, and reporting transparency, with a numeric score stored for each study.

Analysis follows the plan in Section 8.0. Effect directions and statistical significance are extracted for determinants, mediators, and moderators, then links are classified as positive, negative, or null. Estimates are weighted by the study quality score, followed by sensitivity checks that exclude lower quality items. Subgroup comparisons by tier and region are run, and pathways are mapped to the theory blocks in Section 4.1. Vote counting is applied with direction and significance, then harvest plots and a variable by tier heatmap are produced. Evidence is graded as strong, moderate, or emergent using transparent thresholds. A cross tier benchmark table and propositions are compiled to feed directly into the Findings and Conclusion.

FINDINGS AND CONCLUSION

Table 3: Summary of findings

Determinant block	Vote-count trend	Evidence strength	Tiers covered	Representative sources
Leadership and supervision	Positives dominate, few nulls	Strong	Primary, secondary, tertiary	Dutta & Sahney, 2022; Purwanto, 2022; Firmansyah et al., 2022; Azainil et al., 2021; Singerin, 2021; Wardana et al., 2024; Akman, 2021
Culture, climate, commitment	Positives with mediations	Strong	School, university	Subarto et al., 2021; Zamin & Hussin, 2021; Wardana et al., 2024
Compensation, appraisal, income security	Mixed by indicator and context	Moderate	School, university	Ridwan et al., 2022; Zikanga et al., 2021; Sancoko et al., 2023; Sinniah et al., 2022
Work-life balance and conflict	Mixed, FW conflict negative	Moderate	School, university	Al-Alawi et al., 2021; Ridwan et al., 2022; Kahpi et al., 2024
Self-efficacy, motivation, satisfaction	Mostly positive with some nulls	Strong to Moderate	All tiers and EFL	Sadeghi et al., 2021; Lumanug II & Dimla, 2021; Purwanto, 2022; Sudirman et al., 2021; Novitasari et al., 2021; Lie et al., 2021
Digital attitude, happiness, engagement	Positive with mediation	Moderate	University, telework schools	Bangun et al., 2021; Obrad & Circa, 2021; Wang et al., 2025

Using 44 empirical studies from 2021 to 2025 across primary, secondary, and tertiary settings, this study graded evidence as Strong, Moderate, or Emergent with transparent thresholds: Strong when most studies in a block report significant positive effects across at least two tiers; Moderate when positive effects appear in a majority but are tier limited or mixed; Emergent when findings are inconsistent or largely null. Quality-weighted sensitivity favored designs with validated instruments, larger samples, multi-rater inputs, or cross-site coverage. After weighting, the leadership and climate block remained Strong. Instructional leadership improves achievement indirectly through climate and task performance; social climate mediates leadership to citizenship behavior (Dutta & Sahney, 2022). Transformational leadership relates to performance in schools and links meta-analytically to satisfaction, commitment, and self-efficacy (Purwanto, 2022; Firmansyah et al., 2022). Managerial competence, supervision, and discipline predict productivity and performance, with self-efficacy moderating supervision to performance (Azainil et al., 2021; Singerin, 2021). Organizational culture, climate, and commitment associate with satisfaction and performance in schools and universities (Subarto et al., 2021; Zamin & Hussin, 2021; Wardana et al., 2024). Teacher leadership predicts self-efficacy and performance, which confirms an individual to organizational channel (Akman, 2021).

Compensation, appraisal, and work-life constructs graded as Moderate overall after vote counting and sensitivity. In secondary schools, compensation and leader support improve performance and work-life balance, yet work-life balance does not predict performance (Ridwan et al., 2022). Income security schemes raise performance; basic pay shows a positive yet insignificant effect; bonuses and allowances are negative insignificant in one setting (Zikanga et al., 2021). Salary satisfaction predicts performance among university lecturers, while some satisfaction facets are null in a single faculty case (Sancoko et al., 2023). Performance appraisal and code of conduct associate with higher performance, and self-efficacy strengthens the satisfaction to performance link (Sinniah et al., 2022). Saudi evidence shows work-life balance improves performance, family-work conflict harms performance, and work-family conflict is positive but not significant (Al-Alawi et al., 2021). The sensitivity check did not change the Moderate grade, which suggests contextual dependency

rather than a uniform effect.

Individual mechanisms that carry organizational effects graded as Strong to Moderate by pathway. Self-efficacy is a consistent predictor or moderator of performance across tiers and EFL contexts (Akman, 2021; Sadeghi et al., 2021; Purwanto, 2022; Singerin, 2021). Motivation and satisfaction often predict performance, although several studies report null direct effects or only indirect effects, which this study marks as Moderate due to variability by setting and model position (Sudirman et al., 2021; Novitasari et al., 2021; Lie et al., 2021; Ramadana et al., 2021; Gusriani et al., 2022; Arifin, 2021). Digital and telework contexts add affective routes. Happiness fully mediates the link between digital attitude and performance and partially mediates satisfaction to performance among lecturers (Bangun et al., 2021). Perceived student engagement drives work engagement during telework; multinational EFL evidence adds that loving pedagogy, emotion regulation, and self-efficacy predict engagement (Obrad & Circa, 2021; Wang et al., 2025). Moderators include work experience on intrinsic motivation to performance, job satisfaction on self-efficacy to performance, and stress interacting with demographics, where average stress aligns with better performance in one case (Layek & Koodamara, 2024; Lumanug II & Dimla, 2021; Aduma et al., 2022).

These results answer RQ1 and RQ2 and address the gaps in 4.4. This study provides a cross-tier benchmark that ministries, districts, and universities can apply. Prioritize leadership and climate interventions as universal levers, with supervision and managerial competence as near-term tools (Dutta & Sahney, 2022; Azainil et al., 2021; Singerin, 2021; Wardana et al., 2024). Design compensation around income security and credible appraisal rather than undifferentiated bonuses; target salary satisfaction where feasible (Zikanga et al., 2021; Sancoko et al., 2023; Sinniah et al., 2022). Address family–work conflict directly and avoid assuming generic balance programs will lift performance everywhere (Al-Alawi et al., 2021; Ridwan et al., 2022). Invest in programs that raise self-efficacy, support motivation, and develop engagement and positive affect in digital delivery (Purwanto, 2022; Bangun et al., 2021; Obrad & Circa, 2021; Wang et al., 2025). Quality-weighted sensitivity did not change block grades. It only down-weighted small or single-faculty designs when classifying compensation and satisfaction findings.

RECOMMENDATION

Table 4: Summary of findings

Priority action	Practical steps	Target actors / tiers	Expected outcomes	Suggested metrics
1) Strengthen leadership and climate	Scale instructional and transformational leadership programmes with climate targets; use coaching cycles and observation rubrics; formalise principal supervision schedules; develop teacher leadership tracks	Ministries, districts, school leaders; primary, secondary, tertiary	Higher in-role and extra-role performance; better classroom climate; clearer improvement pathways	Classroom observation scores; climate indices; teacher performance scales; student achievement proxies
2) Tune HR to effective levers	Prioritise income security and transparent appraisal; publish codes of conduct; calibrate bonus schemes to avoid weak signals; pair compensation with leadership support; design flexible load and scheduling to reduce family–work conflict	Ministries, universities, HR units; secondary and tertiary emphasis, with school adaptation	Stable performance gains from predictable pay and fair appraisal; lower conflict spillover; better retention	Retention and absence rates; appraisal completion and distribution; satisfaction with pay and appraisal; WLB and conflict scales
3) Build individual	Run mastery-focused PD, mentored lesson study, and specific feedback to raise self-efficacy; add recognition and	School leaders, faculty	Stronger instructional efficacy and	Teacher self-efficacy scales; engagement indices;

mechanisms	growth pathways to sustain motivation; in digital or hybrid delivery, foster positive tech attitudes, emotion regulation, and caring pedagogy; tailor support by work experience and stress profiles	heads, PD units; all tiers, EFL emphasis where relevant	engagement; resilient performance in digital contexts; targeted support by tenure and stress	PD completion and coaching logs; student engagement ratings; stress and workload dashboards
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Source: Author, 2025

First, invest in leadership and climate as universal levers. Ministries and districts should scale instructional and transformational leadership programmes that set specific climate targets for classrooms and facilities, because leadership improves achievement through the physical environment and teacher in-role performance (Dutta & Sahney, 2022). Principal supervision and managerial competence should be paired with coaching cycles and clear observation rubrics, since both predict teacher productivity and performance, with efficacy amplifying supervision effects on performance (Azainil et al., 2021; Singerin, 2021). Schools and faculties should cultivate teacher leadership that raises self-efficacy and performance, supported by culture and commitment initiatives that link to satisfaction and outcomes (Akman, 2021; Subarto et al., 2021; Zamin & Hussin, 2021; Wardana et al., 2024). At primary level, reinforce transformational leadership and teacher self-efficacy together; evidence connects both to stronger performance (Purwanto, 2022; Firmansyah et al., 2022).

Second, tune HR systems to what works across contexts. Prioritise income security and transparent appraisal rather than broad bonus schemes, because income security schemes raise performance, while basic pay and bonuses can show weak or insignificant links (Zikanga et al., 2021). In universities, monitor salary satisfaction and implement credible performance appraisal with clear codes of conduct, which associate with higher performance and strengthen the satisfaction to performance pathway through self-efficacy (Sancoko et al., 2023; Sinniah et al., 2022). Combine compensation policies with leadership support, since both improve performance, while work-life balance is not uniformly predictive in schools (Ridwan et al., 2022). Address family-work conflict directly, because it harms performance, and avoid assuming generic balance programmes will help every setting; design flexible load and scheduling policies that consider telework stress patterns during WFH periods (Al-Alawi et al., 2021; Fahmi et al., 2022).

Third, target individual mechanisms that carry organisational effects. Build self-efficacy through mastery-focused professional development, mentored lesson study, and feedback with specific performance criteria, since self-efficacy consistently predicts or moderates performance (Sadeghi et al., 2021; Purwanto, 2022; Singerin, 2021). Strengthen motivation and satisfaction with recognition and growth pathways, while tracking settings where direct effects are weak, which keeps efforts efficient (Sudirman et al., 2021; Novitasari et al., 2021; Lie et al., 2021). In digital and hybrid delivery, foster positive attitudes to technology and well-being, because happiness fully mediates the digital attitude to performance link, and perceived student engagement drives teacher engagement (Bangun et al., 2021; Obrad & Circa, 2021). Include emotion regulation and caring pedagogy modules to lift engagement across EFL contexts (Wang et al., 2025). Tailor programmes by work experience and stress profiles to match moderation patterns reported in recent studies (Layek & Koodamara, 2024; Lumanug II & Dimla, 2021; Aduma et al., 2022).

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