



The Influence of Transformational Leadership and Work Environment on Teacher Performance through Motivation as a Mediating Variable at SMA NEGERI Pasaman Regency

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Abstract

This study examines the relationships between transformational leadership, work environment, teacher motivation, and teacher performance in public senior high schools in Pasaman Regency. A quantitative approach with an ex post facto causal-associative design was employed. The study involved 230 ASN teachers selected from a population of 495 teachers across 12 public senior high schools using proportional stratified random sampling. Data were collected through a five-point Likert-scale questionnaire measuring transformational leadership, work environment, motivation, and teacher performance. The data were analyzed using descriptive and inferential procedures to assess direct and indirect relationships among the variables. The findings indicate that transformational leadership contributed 48.1% to teacher motivation and 58.1% to teacher performance, while work environment contributed 51.4% to motivation and 54.4% to teacher performance. Motivation contributed 46.8% to teacher performance. The findings further indicate that motivation functions as a mediating variable in the relationships between transformational leadership and teacher performance and between work environment and teacher performance. These results demonstrate that teacher performance is influenced not only by leadership and workplace conditions but also by the motivational processes through which these organizational factors operate. The study highlights the importance of integrating transformational leadership, a supportive work environment, and sustained efforts to strengthen teacher motivation as part of school-based strategies for improving teacher performance.

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INTRODUCTION

Teacher performance remains one of the most consequential determinants of educational quality because teachers translate institutional goals, curriculum expectations, and educational policies into actual classroom practice (Buabeng & Amo-Darko, 2025; Parcerisa et al., 2022; Silander & Stigmar, 2023). Yet, an important tension has emerged: schools may invest heavily in curriculum reform and accountability while teacher performance still varies substantially across organizational contexts. Recent international research increasingly treats teacher performance not merely as an individual outcome but as a product of leadership, working conditions, motivation, professional capacity, and teacher well-being (Onan et al., 2025; Ortan et al., 2021; Yu & Jang, 2024a). The OECD's TALIS 2024 framework, for example, places teacher working conditions, well-being, job satisfaction, professional learning, and leadership-related factors at the center of understanding teachers' professional experiences. This perspective suggests that improving teacher performance cannot be reduced to strengthening individual competence alone. Instead, the organizational environment in which teachers work may determine whether their knowledge and skills are translated into consistent professional performance. Consequently, examining the interaction between school leadership, work environment, and teacher motivation has become increasingly important for understanding how sustainable teacher performance can be achieved.

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The issue becomes more evident in the everyday realities of schools, where teachers are expected to manage instructional planning, classroom implementation, assessment, professional development, administrative responsibilities, and changing educational demands simultaneously (Castro, 2023; Seo et al., 2025; Smets et al., 2022). Such demands can create a discrepancy between what teachers are expected to accomplish and the organizational support available to them. Research on teacher well-being has shown that teachers' professional experiences are closely associated with their working conditions, psychological resources, and organizational context (Hascher et al., 2021; E. A. Skinner et al., 2022). A systematic review of 103 empirical studies found that teacher well-being research has expanded considerably, particularly since 2022, reflecting the growing recognition of the challenges experienced by teachers in contemporary education systems (Akinlar et al., 2025; Puspitasari, 2025). At the same time, a large meta-analysis involving 173 studies and 89,876 participants identified motivation, psychological resources, and job-related factors as important elements within the broader network of teacher well-being (Zhou et al., 2024). These findings indicate that teacher performance is embedded in a complex organizational and psychological process rather than being determined by isolated individual characteristics. Therefore, schools require management strategies that address both the external conditions surrounding teachers and the internal motivation that drives their professional behavior.

Within this context, school leadership occupies a strategic position because principals influence how teachers perceive organizational goals, receive professional support, and respond to institutional challenges. Transformational leadership is particularly relevant because it emphasizes vision, inspiration, intellectual stimulation, and individualized consideration rather than relying solely on administrative control. Recent research indicates that transformational leadership can strengthen teachers' motivation by creating a sense of shared purpose, encouraging innovation, and recognizing individual professional needs (Roesminingsih & Windasari, 2025; Yu & Jang, 2024). Evidence from higher education also suggests that transformational leadership can improve teacher work performance through specific leadership dimensions, although not every dimension produces the same effect across contexts (Alessa & Ghuzayyil, 2021). Similarly, recent systematic evidence indicates that transformational leadership contributes to a supportive educational environment and can influence teacher engagement, commitment, and professional development (Toprak et al., 2023; Wilson et al., 2026). Thus, the central issue is not simply whether principals demonstrate transformational behaviors, but whether such behaviors are translated into psychological motivation and ultimately into stronger teacher performance. This makes transformational leadership particularly valuable for investigating the mechanism through which organizational leadership influences teachers' professional outcomes.

The work environment represents another organizational condition that may determine whether teachers are able to perform their responsibilities effectively. A supportive work environment encompasses not only physical facilities but also interpersonal relationships, communication, organizational climate, collegial support, and access to resources required for teaching. Recent literature emphasizes that teacher motivation is shaped by the interaction between personal well-being and organizational conditions, rather than emerging independently from the workplace (Si, 2024). Empirical studies in Indonesian schools similarly report that work environment is associated with teacher performance, although the strength and direction of its contribution vary across settings and research models (Surwiti et al., 2025). More recent evidence also suggests that workload can influence the relationship between work environment and teacher performance, demonstrating that organizational conditions may operate through more complex mechanisms than a simple direct relationship. This complexity is important because a favorable physical environment alone may be insufficient when teachers experience weak communication, limited recognition, or inadequate organizational support. Accordingly, understanding the work environment as an organizational resource provides a stronger basis for examining how external conditions can stimulate teacher motivation and subsequently support professional performance.

A substantial body of previous research has examined transformational leadership, work environment, motivation, and teacher performance, and the dominant finding generally points toward positive relationships among these variables. For example, Alzoraiki et al. (2023) reported that transformational leadership, work motivation, and related organizational factors were associated with teacher performance in public junior high schools. Yu & Jang (2024) likewise found

significant contributions of transformational leadership and work motivation to teacher performance. More recent Indonesian evidence indicates that transformational leadership can enhance teacher motivation, while motivation itself contributes to teachers' professional outcomes (Andarin et al., 2025). Li (李艳征) (2022) further demonstrated that transformational leadership dimensions such as organizational vision and intellectual stimulation can contribute to teachers' work performance, although the effects were not uniform across all leadership dimensions. In another study, Dutta & Sahney (2021) found that transformational leadership significantly influenced school climate but did not directly predict teacher performance, suggesting that organizational mechanisms may condition the leadership–performance relationship. These findings collectively challenge the assumption that leadership automatically translates into performance and instead suggest that intervening psychological or organizational processes deserve greater attention.

The same pattern can be observed in studies focusing on work environment and motivation. Layek & Koodamara (2024) found that motivation and work environment positively influenced teacher performance, while Mulang (2021) identified work environment and motivation among the factors contributing to teacher performance in elementary schools. Pardosi & Utari (2022) also examined principal leadership, work environment, and work motivation together in explaining teacher performance in senior high schools, demonstrating the relevance of an integrated model. More recent research has continued to confirm the importance of workplace conditions, with B. Skinner et al. (2021) showing that work environment is an important perspective for understanding teacher performance. Similarly, Wang et al. (2023) reported that work environment, motivation, and discipline jointly contribute to teacher performance, although their relative effects were not equally strong. These findings indicate that the literature increasingly recognizes teacher performance as the outcome of multiple organizational and psychological factors. Nevertheless, much of the existing research continues to emphasize direct effects or examines individual predictors separately, leaving the psychological mechanism linking organizational conditions to performance insufficiently explained.

A critical gap therefore remains in explaining how and through what mechanism transformational leadership and work environment influence teacher performance. Previous studies have frequently tested leadership → performance, work environment → performance, or motivation → performance relationships independently, while fewer studies have integrated these relationships into a single mediation framework. Even when mediation has been examined, researchers have often used alternative mediators such as teacher satisfaction or school climate rather than positioning motivation as the central psychological mechanism (Tan & Yang, 2026). Evidence that transformational leadership can affect performance through teacher satisfaction further demonstrates that the relationship is potentially indirect and context-dependent (Eryilmaz & Strietholt, 2025). Likewise, recent reviews emphasize that teacher motivation is interconnected with workplace conditions and other organizational resources, suggesting that motivation should not be treated merely as another independent predictor (Bardach & Klassen, 2021). The gap is particularly relevant in the context of public senior high schools, where organizational structures, leadership practices, and teacher responsibilities operate within relatively formal institutional arrangements. Therefore, an integrated empirical model that simultaneously examines transformational leadership and work environment as organizational antecedents, motivation as a mediating mechanism, and teacher performance as the final outcome is warranted. Addressing this gap can provide a more precise explanation of why similar leadership or workplace conditions may produce different levels of teacher performance across school contexts.

Against this background, the present study aims to analyze the influence of transformational leadership and work environment on teacher performance through motivation as a mediating variable among teachers in public senior high schools in Pasaman Regency. The study specifically examines the direct effects of transformational leadership and work environment on motivation, the direct effects of transformational leadership, work environment, and motivation on teacher performance, and the indirect effects of transformational leadership and work environment on teacher performance through motivation. This integrated model responds directly to the fragmented pattern evident in previous research and places motivation as a potential psychological pathway through which organizational conditions are translated into professional performance. Theoretically, the study contributes to educational management research by integrating leadership, organizational

environment, motivation, and teacher performance within one explanatory framework. It also extends existing evidence by examining these relationships in the context of public senior high schools in Pasaman Regency, a setting that has received comparatively limited empirical attention in recent literature. Practically, the findings are expected to assist school principals and educational managers in identifying whether improving teacher performance should focus primarily on leadership practices, workplace conditions, teacher motivation, or a combination of these factors. More broadly, the study provides an empirical basis for designing school-management strategies that strengthen both the organizational resources available to teachers and the motivational processes underlying their professional performance.

METHOD

Research Design

This study employed a quantitative approach with an ex post facto and causal-associative research design. The quantitative approach was selected because the study aimed to examine the relationships among transformational leadership, work environment, motivation, and teacher performance using numerical data obtained from respondents. An ex post facto design was appropriate because the researchers did not manipulate or provide experimental treatment to the research variables; instead, relationships among variables were examined based on conditions that had naturally occurred in the research setting. The causal-associative orientation was used to examine the relationships of transformational leadership and work environment with motivation and teacher performance and to assess the role of motivation as a mediating variable. The research model positioned transformational leadership (X1) and work environment (X2) as exogenous variables, motivation (M) as the mediating variable, and teacher performance (Y) as the endogenous variable. Data were collected through a structured questionnaire using a five-point Likert scale. The design therefore provided a systematic basis for examining both direct relationships among the variables and indirect relationships involving motivation as a mediating mechanism.

Research Setting and Time

The study was conducted in 12 public senior high schools (SMA Negeri) in Pasaman Regency, West Sumatra, Indonesia. The setting was selected because the study focused specifically on teacher performance in public senior high schools and examined the organizational and motivational factors associated with that performance. The research participants were ASN teachers working in the 12 public senior high schools included in the study. The research context was considered appropriate for examining transformational leadership, work environment, motivation, and teacher performance within a public-school organizational setting. The original manuscript identifies the research location but does not report the exact month or year of data collection. Accordingly, the precise fieldwork period should be inserted from the researchers' research records in the final submission rather than inferred. Questionnaire data were collected from the selected respondents after the research instrument had been prepared and subjected to validity and reliability assessment.

Population and Sample

The population consisted of 495 ASN teachers working in 12 public senior high schools in Pasaman Regency. A total of 230 teachers were selected as the research sample using proportional stratified random sampling. This technique was used to ensure that teachers from the participating schools were represented proportionally according to the distribution of the population. The approach was appropriate because the population was distributed across multiple public senior high schools with different numbers of teachers. Proportional representation was therefore intended to improve the representativeness of the sample in relation to the defined population. The respondents were ASN teachers belonging to the population specified in the study and serving in the 12 public senior high schools in Pasaman Regency. The 230 completed responses constituted the empirical dataset used to measure transformational leadership, work environment, motivation, and teacher performance.

Research Instruments

Data were collected using a structured questionnaire with a five-point Likert scale. The questionnaire covered four principal constructs: transformational leadership, work environment, motivation, and teacher performance. Transformational leadership was measured through four dimensions, namely idealized influence, inspirational motivation, intellectual stimulation, and individualized consideration. The work environment construct covered physical and non-physical aspects, including workplace conditions, facilities, interpersonal relationships, communication, and the organizational climate. Motivation was measured through internal and external drives that encourage teachers to carry out their professional responsibilities. Teacher performance was measured through teachers' ability to plan learning, implement learning activities, establish educational interpersonal relationships, and conduct learning assessment and evaluation. The indicators were organized into questionnaire items to capture the four constructs consistently within the context of public senior high schools.

Validity and Reliability of the Instrument

Before the main data collection, the questionnaire was subjected to validity and reliability assessment. Validity testing was conducted to determine whether the questionnaire items were capable of measuring the intended research constructs, while reliability testing was used to examine the consistency of the instrument. The assessment covered the items representing transformational leadership, work environment, motivation, and teacher performance. The instrument-testing stage was completed before the questionnaire was used to obtain the main research data. The original manuscript confirms that validity and reliability testing was undertaken but does not report the specific coefficients, number of validation experts, number of items, or detailed statistical decision criteria. Those technical values should therefore be inserted from the researchers' actual instrument-testing records if they are required by the target journal. No additional validity or reliability statistics are introduced here because they are not reported in the source manuscript.

Data Collection Procedure

The data collection procedure followed a sequential process designed to maintain consistency between the research objectives, the study population, the measurement instruments, and the subsequent analysis. The procedure began with the selection of the research design and setting, followed by sampling and questionnaire preparation, instrument testing, questionnaire distribution, response collection, data organization, statistical analysis, and hypothesis interpretation. This sequence provided a clear methodological pathway from the definition of the research framework to the interpretation of the relationships among transformational leadership, work environment, motivation, and teacher performance. The complete research procedure is summarized in Figure 1.

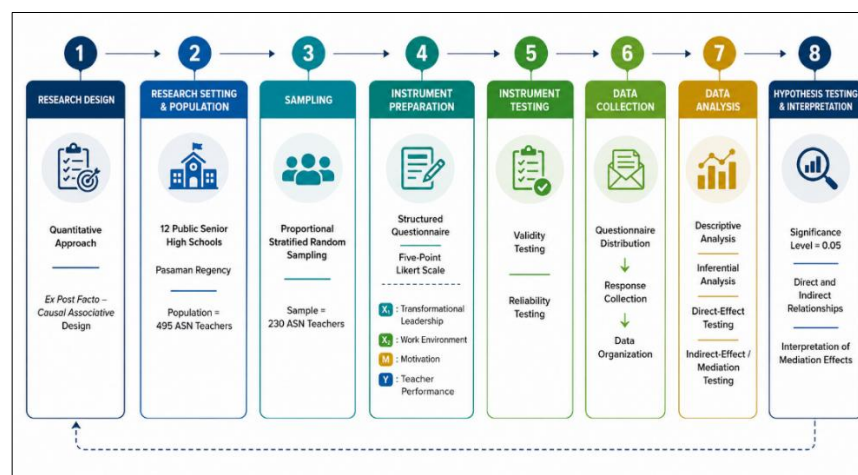


Figure 1. Research Procedure Flowchart

As shown in Figure 1, the research procedure progresses linearly from research design and population identification to sampling, instrument preparation and testing, data collection, data

analysis, and hypothesis interpretation. The sequence ensures that each stage is completed systematically before the study proceeds to the next stage. In particular, the instrument-testing and data-collection stages provide the empirical basis for the subsequent descriptive and inferential analyses. The final stage focuses on evaluating the direct and indirect relationships specified in the research model, including the role of motivation as a mediating variable.

The collected data were analyzed using descriptive and inferential statistical procedures. Descriptive analysis was used to describe the response tendencies for transformational leadership, work environment, motivation, and teacher performance. Inferential analysis was then conducted to examine the relationships among the variables specified in the research model. Direct-effect testing examined the relationships of transformational leadership and work environment with motivation and the relationships of transformational leadership, work environment, and motivation with teacher performance. Indirect-effect analysis was used to examine whether motivation mediated the relationships between transformational leadership and teacher performance and between work environment and teacher performance. Hypothesis testing was conducted at a 5% significance level ($\alpha = 0.05$), with a hypothesis considered supported when the significance value was below 0.05 or when the relevant statistical criterion indicated a significant relationship. The mediation analysis therefore focused on the indirect effects of transformational leadership and work environment on teacher performance through motivation, while the direct relationships were considered when interpreting the overall mediation pattern.

RESULTS AND DISCUSSION

Results

This study involved 230 ASN teachers from 12 State High Schools in Pasaman Regency. The research data was obtained through the distribution of questionnaires that measured four main variables, namely transformational leadership, work environment, motivation, and teacher performance. Conceptually, this research is built on the assumption that teacher performance is not only determined by individual abilities, but also influenced by leadership factors and work environment conditions. The transformational leadership of the principal is seen as an organizational factor that is able to provide inspiration, intellectual stimulation, and individual attention to teachers. Meanwhile, the work environment is seen as a physical and social condition that can create a sense of comfort and support the implementation of teachers' duties. Both factors are expected to increase teacher motivation which further contributes to improved performance.

The Influence of Transformational Leadership on Motivation

The results of the study showed that transformational leadership contributed to teacher motivation with a score of 48.1%. These findings show that the stronger the transformational leadership practices implemented by school principals, the greater the tendency to increase teacher motivation. Transformational leadership can increase teacher motivation through several mechanisms. First, school principals who are exemplary in integrity and professionalism can build teachers' trust in leaders. Second, the ability of the principal to communicate the school's vision in an inspiring way can give greater meaning to the teacher's work. Third, intellectual stimulation can encourage teachers to think creatively and develop learning innovations. Fourth, individual attention allows the principal to provide support according to the needs and characteristics of each teacher. Thus, transformational leadership not only serves as an organizational control mechanism, but also as a source of psychological energy that can encourage teachers to carry out tasks more enthusiastically and oriented towards quality improvement. These findings are in line with Bass and Avilio's theoretical framework that places transformational leadership as a leadership style capable of changing subordinate motivations, values, and orientations through ideal influence, inspirational motivation, intellectual stimulation, and individual consideration. In the context of schools, school principals who are able to apply these four dimensions have the potential to create conditions that encourage teachers to work beyond the fulfillment of administrative obligations.

The Influence of the Work Environment on Motivation

The results of the study showed that the work environment contributed 51.4% to teacher motivation. These results show that the work environment is one of the important factors related to teacher motivation at State High Schools in Pasaman Regency. A good work environment includes the availability of facilities that support work, comfortable workspace conditions, harmonious social relationships, open communication, and support from colleagues and leaders. This condition can create a positive psychological atmosphere so that teachers feel appreciated, supported, and have adequate space to carry out their duties. On the other hand, a less supportive work environment can cause various obstacles in the implementation of work. Limited learning facilities, less harmonious interpersonal relationships, and ineffective organizational communication can reduce comfort and reduce teachers' motivation to develop performance. These results reinforce the view that work motivation comes not only from internal factors of the individual, but is also influenced by organizational conditions. A conducive work environment can provide external support that strengthens the teacher's internal motivation in carrying out professional duties.

The Influence of Transformational Leadership on Teacher Performance

The results of the study showed that transformational leadership contributed 58.1% to teacher performance. These findings show that school principals have a strategic role in encouraging teacher performance improvement. Transformational leadership can influence teacher performance through the creation of a shared vision and strengthening commitment to school goals. Principals who are able to provide inspiration will encourage teachers to not only be oriented towards completing tasks, but also try to improve the quality of the learning process. The intellectual stimulation provided by the principal is also important in improving teacher performance. Teachers need to be encouraged to evaluate the learning methods used, develop more creative approaches, and make optimal use of technology and learning resources. Principals who make room for innovation will help teachers develop a more interactive and non-monotonous learning process. In addition, individual considerations also have an important role. Teachers have different characteristics, experiences, needs, and levels of competence. Therefore, the support of the principal needs to be adjusted to the needs of each teacher. Thus, transformational leadership plays a role in building organizational conditions that encourage teachers to improve performance in a sustainable manner.

The Influence of the Work Environment on Teacher Performance

The results showed that the work environment contributed 54.4% to teacher performance. These findings show that the conditions in which teachers work have an important relationship with teachers' ability to carry out professional duties. A conducive work environment can help teachers in planning, implementing, and evaluating learning. The availability of learning facilities and technology can support the use of more diverse learning methods. Similarly, a harmonious working relationship can encourage collaboration and exchange of experiences between teachers. Teacher performance is also influenced by the psychological conditions that form in the work environment. Teachers who feel safe, valued, and receive support from their organizational environment tend to have better psychological readiness in carrying out their duties. Therefore, improving teacher performance cannot only be done through training and individual competency development. Schools also need to build a work environment that allows teachers to implement these competencies optimally.

The Effect of Motivation on Teacher Performance

The results of the study showed that motivation contributed 46.8% to teacher performance. These findings show that motivation is one of the important internal factors in encouraging teachers to carry out their duties optimally. Teachers who have high motivation tend to show perseverance,

responsibility, creativity, and a willingness to continue to improve. Motivation encourages teachers not to stop at fulfilling formal obligations, but to try to improve the quality of the learning process. In the context of this study, motivation is related to teachers' encouragement to develop competencies, improve learning strategies, evaluate, and provide better educational services to students. These findings also show that improving teacher performance requires strategies that are able to build motivation in a sustainable manner. Awarding, professional development opportunities, support from principals, and creating a conducive work environment are some of the strategies that can strengthen teacher motivation.

The Role of Motivation in Mediating the Influence of Transformational Leadership on Teacher Performance

Based on the research model, motivation was placed as a mediating variable that explained the mechanism of the relationship between transformational leadership and teacher performance. Transformational leadership can not only directly affect teacher performance, but it can also increase motivation which further drives performance improvement. Theoretically, principals who provide inspiration, support, intellectual stimulation, and individual attention can increase the internal drive of teachers. Teachers who feel supported and valued will have a greater tendency to show involvement and effort in carrying out tasks. Thus, motivation can be a psychological mechanism that explains how transformational leadership results in changes in teacher performance. Based on the results of the mediation test, 58.1% of the influence of transformational leadership on teacher performance. If the direct influence of transformational leadership on teacher performance remains significant after the motivation variables are included in the model, then the mediation that occurs is partial mediation. On the other hand, if the direct influence becomes insignificant and the indirect influence is significant, then mediation can be categorized as full mediation.

The Role of Motivation in Mediating the Influence of the Work Environment on Teacher Performance

A conducive work environment can increase teacher motivation through the creation of a sense of security, comfort, value, and support in carrying out tasks. Increased motivation can further encourage teachers to improve the quality of their performance. This relationship shows that the work environment not only has a direct effect on teacher performance, but also through internal psychological processes. Teachers who work in a supportive environment tend to have greater energy and drive to complete assignments as well as develop the quality of learning. Based on the results of the mediation test, 48.5% of the influence of the work environment on teacher performance. These findings reinforce a research model that places motivation as an intervening variable. Improving teacher performance should ideally be done through an integrated approach, namely improving the conditions of the work environment while increasing teacher motivation.

Discussion

The findings demonstrate that transformational leadership is substantially associated with teacher motivation, indicating that the principal's leadership behavior constitutes more than an administrative mechanism for coordinating school activities. The contribution of transformational leadership to motivation suggests that teachers are more likely to invest psychological energy in their professional responsibilities when leadership provides direction, inspiration, intellectual stimulation, and individualized consideration. This interpretation is consistent with the central proposition of transformational leadership theory that leaders can influence followers by reshaping their values, expectations, and sense of purpose rather than relying primarily on formal authority. In the school context, the finding is also consistent with Alzoraiki et al. (2023), who showed that transformational leadership is associated with sustainable teaching performance, and with Yu and Jang (2024), who emphasized the capacity of transformational leadership to strengthen teachers'

work performance. Recent Indonesian evidence similarly indicates that transformational leadership can contribute to teacher performance and professional learning through organizational and motivational processes (Andarin et al., 2025; Roesminingsih & Windasari, 2025). However, the present finding adds an important interpretive dimension by positioning motivation as an immediate psychological pathway through which leadership behavior acquires practical significance. Thus, transformational leadership should not be understood simply as a set of desirable principal behaviors; its effectiveness depends partly on whether those behaviors generate sufficient psychological motivation for teachers to translate organizational expectations into sustained professional effort.

The stronger contribution of the work environment to teacher motivation further indicates that motivational processes are embedded in the everyday organizational conditions experienced by teachers. The finding suggests that motivation is not exclusively an internal psychological disposition but is partly constructed through access to appropriate facilities, collegial relationships, communication, organizational support, and a workplace climate that allows teachers to perform their responsibilities effectively. This interpretation is compatible with the social-ecological perspective on motivation, which conceptualizes motivation as developing through interactions between individuals and the social environments in which they participate (Skinner et al., 2022). It is also consistent with evidence that teachers' professional well-being and motivational resources are strongly related to workplace conditions and broader organizational contexts (Ortan et al., 2021; Zhou et al., 2024). Indonesian studies have likewise reported positive associations between work environment, motivation, and teacher performance (Mulang, 2021; Sari et al., 2024), while more recent evidence suggests that organizational conditions may operate through interconnected rather than isolated mechanisms. The relatively strong role of work environment in the present study therefore implies that motivational improvement cannot be achieved solely through exhortation, rewards, or individual professional development. In practical terms, school leaders need to treat the work environment as a motivational resource by ensuring that teachers have the physical, social, and organizational conditions necessary to convert professional intentions into effective action.

The positive relationship between transformational leadership and teacher performance provides further evidence that leadership behavior can shape professional outcomes directly, rather than operating exclusively through teachers' internal motivation. The finding can be explained through transformational leadership theory because principals who communicate a meaningful vision, stimulate professional thinking, model desired behavior, and attend to individual teacher needs can create conditions in which teachers are encouraged to exceed minimum role expectations. Intellectual stimulation is particularly important because teacher performance increasingly requires adaptation, instructional innovation, technology use, and continuous reflection rather than routine implementation of established practices. This interpretation corresponds with Alzoraiki et al. (2023), who linked transformational leadership with sustainable teaching performance, and with Yu and Jang (2024), who conceptualized transformational leadership as a mechanism for enhancing teachers' work performance. It also resonates with systematic evidence showing that transformational school leadership can influence teacher-related outcomes, although the magnitude of effects may vary across institutional and educational contexts (Toprak et al., 2023; Li, 2022). Importantly, the present finding should not be interpreted as evidence that leadership alone determines teacher performance, because performance remains dependent on resources, professional competence, workload, and contextual constraints. Rather, the finding indicates that principal leadership can function as an organizational catalyst that makes higher levels of professional performance more attainable within the existing school structure.

The contribution of the work environment to teacher performance reinforces the argument that performance is partly an organizational accomplishment rather than merely an individual

attribute. A teacher may possess adequate pedagogical knowledge and professional competence, yet those capacities cannot necessarily be translated into effective classroom practice when facilities are inadequate, communication is dysfunctional, or collegial support is weak. From this perspective, the work environment operates as an enabling condition that determines whether teachers can mobilize their competencies in planning, implementing, assessing, and improving instruction. This interpretation is compatible with research emphasizing the importance of organizational conditions for teacher functioning and well-being (Skinner et al., 2021; Hascher et al., 2021) and with evidence that work environment and motivation are positively related to teacher performance (Layek & Koodamara, 2024). Recent Indonesian research has also reported positive effects of work environment on teacher performance, supporting the relevance of workplace conditions in school management (Surwiti et al., 2025). Nevertheless, the finding should be interpreted critically because a favorable work environment does not automatically guarantee high-quality teaching; excessive workload, accountability pressures, and competing administrative demands may constrain the extent to which environmental resources can be converted into performance (Castro, 2023; Parcerisa et al., 2022). Consequently, improving the work environment should involve more than providing physical facilities; it should include organizational arrangements that protect teachers' professional capacity to concentrate on teaching and learning.

The positive contribution of teacher motivation to performance provides evidence that organizational improvements must ultimately be accompanied by psychological engagement if schools expect sustainable performance gains. Motivation can influence the intensity, persistence, and direction of teachers' professional effort, helping explain why teachers exposed to similar institutional expectations may nevertheless demonstrate different levels of initiative and commitment. This interpretation is consistent with motivational perspectives that distinguish the presence of organizational resources from the psychological processes through which individuals interpret and utilize those resources. Bardach and Klassen (2021), for example, emphasized the importance of teacher motivation for educational outcomes, while Ortan et al. (2021) demonstrated the interconnectedness of self-efficacy, job satisfaction, and teacher well-being. The present finding is also consistent with Layek and Koodamara (2024), who identified motivation as an important factor in teacher performance, and with recent Indonesian research showing that work motivation contributes positively to teacher performance. At the same time, motivation should not be reduced to extrinsic incentives because excessive reliance on rewards may produce compliance without necessarily fostering sustained professional commitment. The implication is that school management should develop motivation through meaningful professional goals, recognition, autonomy, professional learning opportunities, supportive leadership, and conditions that allow teachers to experience competence and purpose in their work.

More importantly, the mediation findings suggest that motivation provides a psychological mechanism connecting transformational leadership with teacher performance. This is theoretically significant because it shifts the interpretation of leadership from a simple predictor–outcome relationship toward a process-oriented explanation in which leadership influences teachers' internal motivational states, which subsequently support professional performance. Transformational leadership can therefore be understood as initiating a motivational sequence: inspirational vision and individualized support create psychological engagement, while that engagement increases the effort and persistence necessary for effective professional performance. This interpretation extends earlier research that often examined leadership and performance as direct relationships and is consistent with studies suggesting that organizational leadership effects may operate through intervening psychological or organizational mechanisms (Dutta & Sahney, 2021; Eryilmaz & Strietholt, 2025). Recent Indonesian research has similarly begun to examine indirect pathways involving leadership, motivation, and teacher outcomes, supporting the value of integrated

explanatory models rather than isolated predictor analyses. The present study therefore contributes conceptually by positioning motivation not merely as another independent determinant of performance but as a mechanism through which leadership resources can be psychologically converted into professional action. However, because the manuscript does not report the detailed indirect-effect coefficient, confidence interval, or the statistical significance of each mediation path, the nature and magnitude of the mediation should be interpreted cautiously rather than characterized as complete or partial mediation without additional statistical evidence. This methodological qualification is important because mediation implies a theoretically ordered mechanism, whereas the *ex post facto* design establishes statistical association rather than definitive temporal causality.

A similar mechanism appears in the relationship between work environment and teacher performance, where motivation functions as an intervening psychological process. A supportive workplace can provide teachers with the security, recognition, interpersonal trust, and material resources needed to sustain professional effort, but these environmental resources are unlikely to produce their full effect unless teachers perceive them as meaningful and become motivated to act upon them. The finding therefore supports a resource-based interpretation in which organizational conditions influence performance partly by strengthening teachers' motivational capacity. This argument is consistent with Skinner et al. (2022), who emphasized the role of social ecologies in the development of motivation, and with Zhou et al. (2024), whose meta-analysis demonstrates that teacher well-being is associated with a broad network of personal and contextual factors. It also aligns with recent empirical work showing that work environment and motivation jointly contribute to teacher performance and that motivation can serve as an intervening mechanism between organizational conditions and professional outcomes. Nevertheless, the Pasaman context is important because public senior high schools operate within formal bureaucratic structures in which leadership authority, resource allocation, administrative expectations, and professional responsibilities are institutionally regulated. The mediation finding consequently suggests that improving teacher performance requires simultaneous attention to organizational resources and teachers' psychological responses to those resources, rather than assuming that environmental improvement will automatically generate behavioral change.

Taken together, the findings support an integrated explanation in which teacher performance emerges from the interaction of leadership, workplace conditions, and motivational processes rather than from a single organizational factor. The model contributes to the literature by bringing transformational leadership, work environment, motivation, and teacher performance into one explanatory framework, thereby addressing the fragmented pattern of earlier studies that frequently examined direct relationships separately. This integrated perspective is consistent with recent scholarship that conceptualizes teacher performance and well-being as products of interconnected organizational, psychological, and professional conditions (Onan et al., 2025; Zhou et al., 2024). It also extends transformational leadership theory by suggesting that the influence of leadership is partly contingent on its capacity to activate motivational processes, while extending organizational perspectives on the work environment by demonstrating its relevance not only as a contextual condition but also as a source of psychological energy. At the practical level, the results imply that school improvement strategies should avoid treating leadership development, workplace improvement, and teacher motivation as independent administrative programs. Principals should combine inspirational and individualized leadership with adequate facilities, constructive communication, collegial collaboration, professional recognition, and meaningful development opportunities so that organizational resources are translated into sustained teacher effort. Theoretically, however, the study should be viewed as an important contextual contribution rather than a universal causal model, because its cross-sectional *ex post facto* design, reliance on

questionnaire data, and concentration on ASN teachers in 12 public senior high schools in Pasaman Regency limit causal and geographical generalization. Future research should therefore test the model using longitudinal or multilevel designs, objective indicators of teacher performance, and additional mediating or moderating variables such as self-efficacy, job satisfaction, workload, organizational commitment, and school climate. Within these boundaries, the study provides a useful global perspective from an Indonesian public-school context: sustainable teacher performance is most plausibly strengthened when transformational leadership and supportive working conditions are deliberately connected to the motivational processes through which teachers interpret, internalize, and enact organizational expectations.

CONCLUSION

This study concludes that transformational leadership and work environment are important factors associated with teacher motivation and performance in public senior high schools in Pasaman Regency. Transformational leadership contributes to both teacher motivation and teacher performance, indicating that leadership characterized by exemplary behavior, inspirational direction, intellectual stimulation, and individualized consideration can encourage teachers to perform their professional responsibilities more effectively, while a supportive work environment also contributes substantially to motivation and performance through favorable physical and interpersonal conditions. Teacher motivation is likewise associated with teacher performance, demonstrating the importance of internal and external work-related drives in sustaining teachers' engagement with their professional responsibilities. Furthermore, motivation functions as a mediating variable in the relationships between transformational leadership, work environment, and teacher performance, suggesting that organizational conditions influence teacher performance not only directly but also through the motivational processes experienced by teachers. Accordingly, efforts to improve teacher performance should integrate transformational leadership, a conducive work environment, and continuous strengthening of teacher motivation rather than addressing these factors separately. In practical terms, school principals need to provide clear direction, encouragement, intellectual support, and attention to teachers' individual needs, while schools should maintain working conditions that enable teachers to plan, implement, and evaluate learning effectively. Overall, the findings demonstrate that teacher performance is shaped by the interaction between organizational conditions and motivational processes, while the evidence from public senior high schools in Pasaman Regency provides a basis for understanding motivation as an important mechanism linking school leadership and the work environment with teachers' professional performance; future studies may extend this model by incorporating additional organizational or individual factors and applying more detailed statistical procedures to further clarify the mechanisms underlying teacher performance.

AUTHOR CONTRIBUTIONS STATEMENT

Rahmi Saleh Conceptualization, development of the research framework, methodology, data collection, data analysis, interpretation of findings, and manuscript preparation. Lusi Susanti: Supervision of the research process, methodological review, interpretation of findings, and critical revision of the manuscript. Syahril Literature review, methodological support, data interpretation, and critical revision of the manuscript. Merika Setiawati Research support, data organization, manuscript review, and revision of the final manuscript. All authors Reviewed and approved the final version of the manuscript and agreed to be accountable for all aspects of the work, ensuring that questions related to the accuracy and integrity of the research were appropriately addressed.

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