Tekno-Pedagogi 15 (2) (2025)
ISSN: 2088-205X | E-ISSN: 2715-7415
Tekno-Pedagogi : Jurnal Teknologi Pendidikan
https://online-journal.unja.ac.id/pedagogi
https://doi.org/10.22437/teknopedagogi.v15i2.48403

Transformational Leadership and Workload Driving Performance through Innovation and Job Satisfaction in Rural Education

Marsa Hijro Partiwi[1], Robi Hendra[2], Muazza Muazza[3], Yanto Yanto[4]
[1,2,3,4]Universitas Jambi, Jambi, Indonesia
Corresponding author email: robi.hendra@unja.ac.id

Info Article
Received: 16 Sept 2025
Revised: 10 Oct 2025
Accepted: 18 Oct 2025
Online Version: 30 Oct 2025

Abstract
This study examines how transformational leadership and workload drive teacher performance through innovative work behaviour and job satisfaction in a rural educational context. While previous studies have explored these variables separately, empirical evidence integrating leadership, workload, innovation, and satisfaction within rural education settings remains limited. Using a quantitative cross-sectional design, data were collected from 362 teachers in Kerinci District, Jambi Province, Indonesia, and analysed using Partial Least Squares Structural Equation Modelling (PLS-SEM). The results show that transformational leadership significantly influences innovative work behaviour ($\beta = 0.386$, $p < 0.001$) and job satisfaction ($\beta = 0.120$, $p = 0.010$). Workload emerges as the strongest predictor of innovative work behaviour ($\beta = 0.578$, $p < 0.001$) and job satisfaction ($\beta = 0.648$, $p < 0.001$). Furthermore, innovative work behaviour ($\beta = 0.171$, $p = 0.015$) and job satisfaction ($\beta = 0.497$, $p < 0.001$) positively affect teacher performance. These findings highlight that teacher performance in rural education is shaped not only by inspirational leadership but also by structured and manageable workloads that foster innovation and satisfaction. This study contributes to leadership and organizational behaviour literature by clarifying the mechanisms through which leadership and workload influence performance in developing-region educational contexts and offers practical implications for school leadership and educational policy.

Keywords: Innovative Work Behaviour; Job Satisfaction; Rural Education; Teacher Performance; Transformational Leadership; Workload

INTRODUCTION

Teacher performance plays a central role in determining the quality of education and the development of human resources, as teachers function as the main agents in translating educational goals into effective learning practices. High-performing teachers contribute not only to improved student achievement but also to the sustainability of educational systems in responding to social and technological changes (Priyono et al., 2018; Wahyuni et al., 2024). Previous studies emphasize that teacher performance is closely related to educators' ability to manage instructional tasks, demonstrate

professionalism, and continuously develop their competencies in line with institutional expectations and educational standards (Ratnasari, 2020; Fakhrurrazi et al., 2022). However, achieving optimal teacher performance remains a persistent challenge, particularly in contexts where educators face increasing work demands, limited resources, and complex institutional expectations (Murtafiah, 2022; Ahyani, 2020). These conditions highlight the importance of understanding organizational and psychological factors that shape teacher performance, including leadership practices, workload structures, and internal work-related attitudes that influence how teachers engage with their professional roles (Agustina et al., 2024; Handariani et al., 2023).

These challenges become more pronounced in rural educational contexts, where structural and organizational constraints often intensify the demands placed on teachers. In rural areas, educators are frequently required to perform multiple roles beyond instructional responsibilities, including administrative duties and additional institutional tasks that substantially increase their overall workload (Handariani et al., 2023; Musa & Ruma, 2022). Previous studies indicate that excessive and poorly structured workloads can limit teachers' capacity to focus on instructional quality and professional development, thereby constraining their ability to innovate in teaching practices (Safitri, 2020; Jalil, 2020). At the same time, limited access to professional support, learning resources, and leadership development in rural settings may further reduce teachers' motivation and job satisfaction (Murtafiah, 2022; Widayati et al., 2020). As a result, teachers in rural schools often face greater difficulty in maintaining high performance levels while responding to evolving educational expectations, underscoring the need for organizational conditions that can effectively support innovation, satisfaction, and sustained performance in such contexts (Agustina et al., 2024; Wahyuni et al., 2024).

In response to the structural and organizational challenges faced by teachers in rural educational settings, leadership practices play a critical role in shaping teachers' work experiences and performance. Transformational leadership has been widely recognized as an effective leadership approach in educational organizations because it emphasizes inspiration, motivation, intellectual stimulation, and individualized consideration, which are essential for fostering teacher engagement and resilience (Addin et al., 2020; Efendi et al., 2023). Empirical studies indicate that transformational leaders are able to cultivate trust, commitment, and a shared vision among teachers, enabling them to remain motivated and committed despite increasing workload pressures (Efendi et al., 2023; Rifa'i, 2020). By encouraging confidence, pride, and loyalty, transformational leadership can motivate teachers to exceed formal job requirements and actively engage in innovative work behaviours that support instructional improvement and organizational effectiveness (Hardianto et al., 2021; Wardhani & Gulo, 2017). In rural school contexts, where institutional resources and professional support are often limited, transformational leadership becomes particularly important for sustaining teachers' job satisfaction and enhancing overall performance (Addin et al., 2020; Supandi, 2023).

Beyond leadership practices, workload represents a critical structural factor that shapes teachers' work conditions, particularly in rural educational settings. Workload refers to the volume and complexity of tasks that must be completed within a given time frame and includes both physical and mental demands (Putra, 2023; Wahdaniyah & Miftahuddin, 2019). In rural schools, teachers often experience an accumulation of responsibilities, such as administrative duties, instructional planning, and additional institutional assignments, which intensify work pressure and limit opportunities for professional development (Handariani et al., 2023; Musa & Ruma, 2022). Several studies have shown that excessive workload can reduce teachers' focus on instructional quality and negatively affect job satisfaction and performance (Safitri, 2020; Safitri et al., 2019). However, other findings suggest that when workload is structured and aligned with teachers' capacities, it may also stimulate engagement and innovative work behaviour by providing clear responsibilities and a sense of professional trust (Muzayyanah, 2023; Fitria & Limgiani, 2024). These mixed findings indicate that workload should not be viewed solely as a source of stress but as a structural condition that can either constrain or support innovation, satisfaction, and performance depending on how it is managed, particularly within the resource-limited context of rural education.

Innovative work behaviour and job satisfaction function as key psychological and behavioural mechanisms through which leadership and workload influence teacher performance. Innovative work behaviour reflects teachers' ability to explore ideas, generate solutions, and implement new approaches in instructional practices, enabling them to respond effectively to changing educational demands (Hardianto et al., 2021; Ismiantri & Mulyana, 2021). Prior studies emphasize that teachers who demonstrate higher levels of innovative work behaviour tend to be more adaptive, proactive, and effective in improving learning quality and organizational outcomes (Josephine et al., 2023; Sinaga, 2023). At the same time, job satisfaction represents a critical affective condition that shapes teachers' motivation and commitment toward their professional roles (Indahsari et al., 2025; Widayati et al., 2020). Satisfied teachers are more likely to engage positively with their work environment, display innovative behaviours, and sustain high performance levels, particularly under demanding work conditions (Handariani et al., 2023; Patricia & Purnama, 2024). In rural educational contexts, where teachers often face structural constraints and limited support, innovative work behaviour and job satisfaction play a pivotal role in translating leadership practices and workload structures into improved performance outcomes.

Despite growing scholarly attention to transformational leadership, workload, innovative work behaviour, and job satisfaction in educational settings, existing studies remain fragmented and provide limited integrative explanations of how these factors jointly shape teacher performance. Prior research has predominantly examined leadership, workload, or job satisfaction as isolated predictors of performance, often yielding inconsistent findings regarding their relative influence and underlying mechanisms (Addin et al., 2020; Safitri et al., 2019; Sari et al., 2022). Moreover, empirical studies that explicitly position innovative work behaviour and job satisfaction as mediating mechanisms linking leadership and workload to performance are still scarce, particularly in rural educational contexts where structural constraints and resource limitations are more pronounced (Hardianto et al., 2021; Muzayyanah, 2023). Most existing evidence has been generated from urban or organizational settings, leaving a gap in understanding how these relationships operate within rural schools, where teachers face distinctive workload structures and leadership dynamics (Handariani et al., 2023; Musa & Ruma, 2022). Consequently, there is a lack of comprehensive empirical models that explain the pathways through which transformational leadership and workload influence teacher performance via innovation and job satisfaction in rural education, underscoring the need for integrative and context-sensitive research.

To address the identified research gap, this study proposes an integrative conceptual model that explains teacher performance as an outcome of transformational leadership and workload, operating through innovative work behaviour and job satisfaction as key mediating mechanisms.

Table 1. Research hypotheses

Hypothesis	Statement
H1	Innovative work behavior positively affects job satisfaction.
H2	Innovative work behavior positively affects teacher performance.
H3	Job satisfaction positively affects teacher performance.
H4	Transformational leadership positively influences innovative work behavior.
H5	Transformational leadership positively affects job satisfaction.
H6	Transformational leadership positively affects teacher performance.
H7	Workload positively influences innovative work behavior.
H8	Workload positively affects job satisfaction.
H9	Workload positively affects teacher performance.

Drawing on transformational leadership theory and prior empirical findings, leadership is expected to foster innovation and satisfaction by inspiring, motivating, and empowering teachers to exceed formal role expectations (Addin et al., 2020; Efendi et al., 2023). Simultaneously, workload is conceptualized as a structural condition that can either constrain or stimulate teachers' innovative behaviour and job satisfaction, depending on its alignment with teachers' capacities and work context (Putra, 2023; Muzayyanah, 2023). Innovative work behaviour and job satisfaction are positioned as proximal

determinants of performance, reflecting teachers' adaptive capabilities and affective commitment to their professional roles (Hardianto et al., 2021; Indahsari et al., 2025). Accordingly, this study aims to examine (1) the effects of transformational leadership and workload on innovative work behaviour and job satisfaction, (2) the influence of innovative work behaviour and job satisfaction on teacher performance, and (3) the overall explanatory power of the proposed model in a rural educational context. By testing these relationships empirically, this research seeks to provide a coherent and context-sensitive explanation of how leadership and workload drive teacher performance through innovation and job satisfaction. Based on the proposed conceptual relationships, Figure 1 illustrates the research model tested in this study.

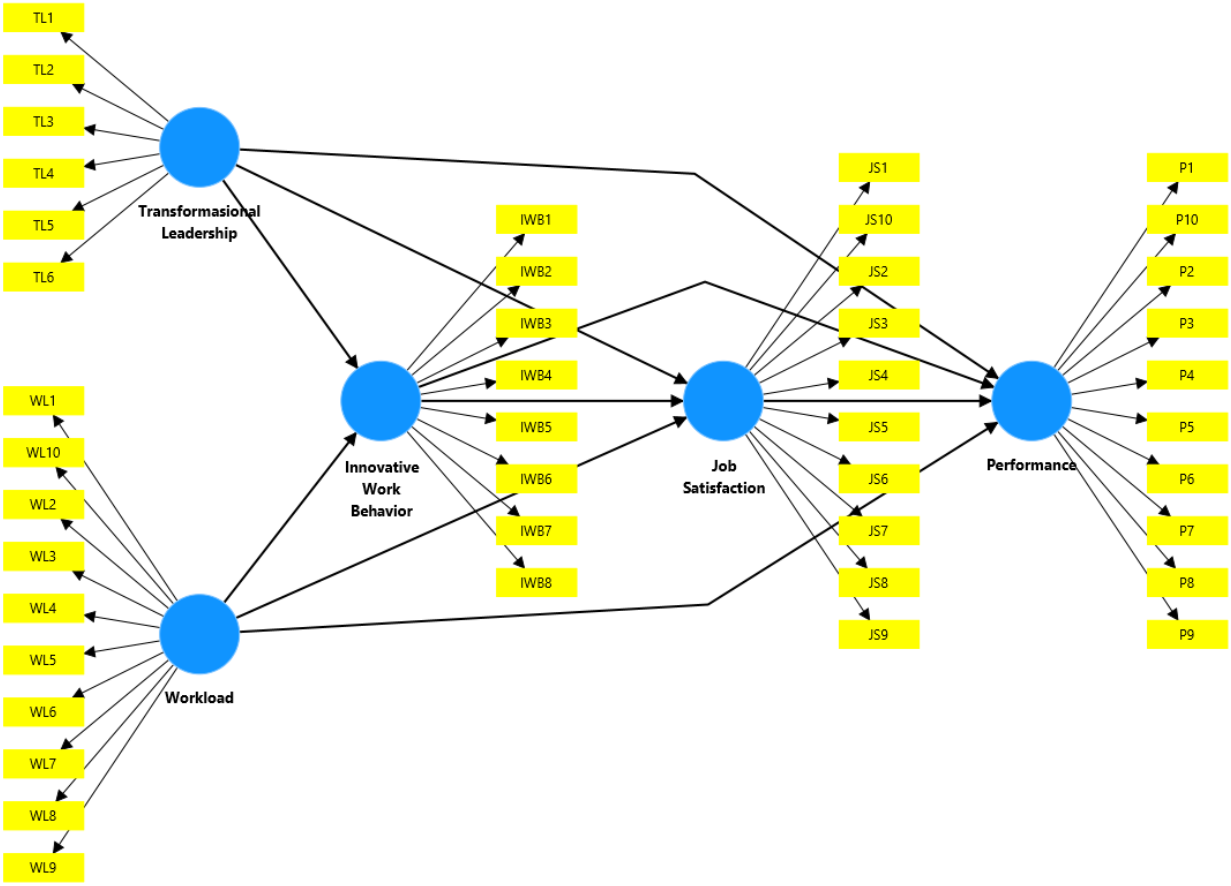

Figure 1. Conceptual Research Model of Transformational Leadership and Workload Effects on Teacher Performance

RESEARCH METHODS

This study employed a systematic and rigorous methodological approach to empirically examine the proposed conceptual model linking transformational leadership, workload, innovative work behavior, job satisfaction, and teacher performance in a rural educational context. The research methods were designed to ensure alignment between the research objectives, the theoretical framework, and the analytical strategy, thereby supporting the validity and reliability of the findings. A quantitative approach was adopted to allow objective measurement of relationships among variables, supported by standardized instruments and a structured data collection process. The methodological procedures encompassed research design, research subjects, research procedures, instruments and data collection techniques, and data analysis techniques, each of which is described in detail in the following sub-sections to ensure transparency, replicability, and compliance with international research standards.

Research Design

This study adopted a quantitative correlational research design with an explanatory orientation. A correlational design was employed to examine the strength and direction of relationships among transformational leadership, workload, innovative work behaviour, job satisfaction, and teacher performance without manipulating the research variables. Such a design is appropriate when the objective is to understand naturally occurring relationships among variables within real organizational and educational settings (Aziz, 2020). The explanatory nature of the study reflects its primary aim to explain how leadership and workload function as key drivers of teacher performance through innovation and job satisfaction, rather than merely describing observed phenomena.

The study was conducted using a cross-sectional survey approach, in which data were collected at a single point in time to capture teachers' perceptions of leadership practices, workload conditions, innovative behaviours, job satisfaction, and performance. This approach is suitable for testing theoretically grounded models and evaluating both direct and indirect relationships among multiple constructs simultaneously. The research context focused on rural education, where organizational constraints, workload distribution, and leadership practices are expected to play a critical role in shaping teacher performance.

To empirically test the proposed conceptual model, this study utilized Structural Equation Modeling with a Partial Least Squares approach (PLS-SEM). The selection of PLS-SEM was driven by the predictive and explanatory objectives of the research, the complexity of the proposed model involving multiple latent variables and mediated relationships, and the suitability of this method for moderate sample sizes and non-normal data distributions. PLS-SEM enables simultaneous assessment of the measurement model and the structural model, allowing for robust evaluation of both construct validity and hypothesized relationships among variables.

Overall, the research design was structured to provide a systematic and rigorous examination of how transformational leadership and workload influence teacher performance through innovative work behaviour and job satisfaction in a rural educational context. This design ensures alignment between the research questions, the conceptual framework, and the analytical strategy, thereby supporting the validity and interpretability of the study's findings.

Research Subject

The research subjects in this study were teachers working in public and private schools in Kerinci Regency, Jambi Province, Indonesia. The target population consisted of 5,992 teachers across primary and secondary education levels, distributed in various sub-districts within the regency (Direktorat Jenderal Pendidikan Anak Usia Dini, 2025). This population was selected because Kerinci Regency represents a rural educational context characterized by diverse school conditions, varying leadership practices, and distinct workload structures, which are relevant to the objectives.

Given the large population size and constraints related to time, accessibility, and geographical dispersion of schools, it was not feasible to involve all teachers as respondents. Therefore, a representative sample was determined using Slovin's formula with a margin of error of 5% ($e = 0.05$), a common approach in social science research when population parameters are known. Based on this calculation, a total sample of 362 teachers was obtained and considered sufficient to represent the population with an acceptable level of statistical confidence.

The sample included teachers from different school levels and sub-districts to ensure variability in teaching experience, organizational context, and workload conditions. Participation in the study was voluntary, and respondents were informed about the purpose of the research prior to completing the questionnaire. This approach helped ensure that the data reflected authentic perceptions of teachers regarding leadership practices, workload, innovative work behaviour, job satisfaction, and performance within their respective school environments.

By selecting teachers as the research subjects, this study directly captures the perspectives of key educational actors who experience leadership practices and workload conditions first-hand. This focus strengthens the relevance of the findings for understanding teacher performance dynamics in rural education and supports the generalizability of the results within similar contextual settings.

Research Procedure

The research procedure was conducted through a series of systematic stages to ensure the rigor and reliability of the study. The first stage involved the development of research instruments based on theoretical indicators and measurement scales that had been validated in previous studies. The questionnaire items for transformational leadership and innovative work behaviour were adapted from Sudrajat and Samudera (2021), workload and teacher performance from Saputra and Marlius (2023), and job satisfaction from Tarjo (2019). All items were carefully reviewed and adjusted to fit the educational context of rural schools while maintaining their original conceptual meanings.

Prior to the main data collection, a pilot test was conducted with 30 teachers to assess the clarity, reliability, and internal consistency of the questionnaire. The pilot results indicated that all constructs met acceptable reliability criteria, with Cronbach's Alpha values exceeding the recommended threshold of 0.70. Based on feedback from the pilot test, minor revisions were made to improve item clarity before the questionnaire was distributed to the full sample.

The main data collection was carried out from March to April 2025 using an online survey administered through Google Forms. This method was chosen for its efficiency and ability to reach teachers across geographically dispersed schools in Kerinci Regency. The questionnaire employed a four-point Likert scale ranging from 1 (strongly disagree) to 4 (strongly agree), enabling respondents to provide clear and direct evaluations of each statement. Participation was voluntary, and respondents were informed about the purpose of the study, the confidentiality of their responses, and the use of data solely for research purposes.

After the data collection period ended, all responses were screened to ensure completeness and suitability for analysis. Incomplete or duplicate responses were excluded from further analysis. The finalized dataset was then prepared for statistical analysis using Structural Equation Modelling with the Partial Least Squares approach (PLS-SEM). This procedural sequence ensured that the data collection and preparation stages were conducted consistently and systematically, thereby supporting the validity and robustness of the subsequent analysis and findings.

Instruments and Data Collection Techniques

The research instrument used in this study was a structured questionnaire designed to measure five latent constructs: transformational leadership, innovative work behaviour, workload, job satisfaction, and teacher performance. All measurement items were adapted from previously validated instruments to ensure content validity and reliability. Transformational leadership was measured using six items adapted from Sudrajat and Samudera (2021), which capture key dimensions such as inspirational motivation and individualized consideration. Innovative work behaviour was assessed using eight items from the same source, reflecting idea generation, idea promotion, and idea implementation in the teaching context. Workload was measured using ten items adapted from Saputra and Marlius (2023), focusing on task quantity, time pressure, and work intensity. Job satisfaction was measured using ten items adapted from Tarjo (2019), capturing teachers' affective responses to responsibilities, work conditions, and professional roles. Teacher performance was assessed using ten items adapted from Saputra and Marlius (2023), emphasizing task completion, instructional quality, and adherence to professional standards.

All questionnaire items were measured using a four-point Likert scale ranging from 1 (strongly disagree) to 4 (strongly agree). The use of a four-point scale was intended to encourage respondents to provide clear evaluative judgments by avoiding a neutral midpoint, which is considered appropriate for perceptual assessments in educational research contexts. Prior to the main survey, the instrument underwent a pilot test involving 30 teachers to assess internal consistency and item clarity. The pilot test results indicated satisfactory reliability for all constructs, with Cronbach's Alpha values exceeding the minimum acceptable threshold of 0.70, confirming the instrument's suitability for full-scale data collection.

Data collection was conducted through an online survey distributed via Google Forms between March and April 2025. This technique was selected due to its efficiency, accessibility, and ability to reach teachers across geographically dispersed schools in Kerinci Regency. The online format also facilitated standardized data entry and minimized data handling errors. To ensure data

quality, respondents were informed that participation was voluntary and that their responses would remain anonymous and confidential. Only complete and valid responses were included in the final dataset, which was subsequently prepared for analysis using the PLS-SEM approach.

Data Analysis Technique

Data analysis in this study employed Structural Equation Modeling using the Partial Least Squares approach (PLS-SEM), implemented with SmartPLS 4 software. PLS-SEM was selected because of its suitability for predictive and explanatory research, its ability to handle complex models with multiple latent variables, and its robustness in situations involving moderate sample sizes and non-normal data distributions. This approach is appropriate for examining both direct and indirect relationships among transformational leadership, workload, innovative work behaviour, job satisfaction, and teacher performance within a single integrated model.

The analysis followed a structured, two-stage procedure. First, the measurement model (outer model) was evaluated to assess the reliability and validity of the constructs. Indicator reliability was examined through factor loadings, while internal consistency reliability was assessed using Cronbach's Alpha and Composite Reliability values. Convergent validity was evaluated using the Average Variance Extracted (AVE), ensuring that each construct adequately explained the variance of its indicators. Discriminant validity was assessed using the Fornell–Larcker criterion and the Heterotrait–Monotrait (HTMT) ratio to confirm that each construct was empirically distinct from the others.

After establishing the adequacy of the measurement model, the structural model (inner model) was evaluated. This stage involved examining collinearity among constructs using Variance Inflation Factor (VIF) values, followed by hypothesis testing through path coefficient analysis. The significance of the hypothesized relationships was assessed using a bootstrapping procedure with resampling to obtain t-statistics and p-values. The explanatory power of the model was evaluated using the coefficient of determination (R^2) for each endogenous construct.

To further assess the quality and predictive capability of the model, additional metrics were examined, including effect size (f^2) to determine the magnitude of each predictor's influence and predictive relevance (Q^2) to evaluate the model's out-of-sample prediction accuracy. The overall model fit and predictive performance were interpreted comprehensively to ensure that the proposed conceptual model adequately explained teacher performance within the rural educational context. This systematic analytical procedure supports robust and transparent evaluation of both the measurement and structural components of the model.

RESULTS AND DISCUSSION

Result

Data Normalization

Before proceeding to the measurement model, the normality of the data is tested through the Kurtosis and Skewness values of each item, as presented in Table 2. In this study, the kurtosis value ranges from -0.015 to 0.709, while the skewness value is between -1.036 to -0.987. According to the literature, the kurtosis and skewness values within the ± 2 range indicate that the data meets the normal distribution assumptions so as to facilitate further analysis (Sofyan et al., 2025). Overall, the results of this analysis showed that all items tested met the assumption of normal distribution, making it possible to conduct further analysis. Normally distributed data is very Important in this research, because it provides a strong basis for the interpretation of the results and the validity of the findings obtained. Thus, the further analysis process can be carried out more precisely and accurately.

Table 2. Measurement model

Name	Mean	Scalemin	Scalemax	SD	Kurtosis	Skewness
TL1	3.019	1.000	4.000	0.786	0.709	-0.818
TL2	3.118	1.000	4.000	0.848	0.257	-0.852
TL3	3.107	1.000	4.000	0.843	0.036	-0.757
TL4	3.135	1.000	4.000	0.878	0.273	-0.927
TL5	3.000	1.000	4.000	0.871	-0.060	-0.702
TL6	3.000	1.000	4.000	0.868	-0.085	-0.684
IWB1	2.995	1.000	4.000	0.842	-0.015	-0.655
IWB2	3.066	1.000	4.000	0.881	0.117	-0.831
IWB3	3.157	1.000	4.000	0.871	0.442	-0.986
IWB4	3.148	1.000	4.000	0.871	0.335	-0.944
IWB5	3.115	1.000	4.000	0.885	0.050	-0.848
IWB6	3.102	1.000	4.000	0.870	0.103	-0.828
IWB7	3.190	1.000	4.000	0.858	0.242	-0.925
IWB8	3.137	1.000	4.000	0.869	0.160	-0.875
WL1	3.135	1.000	4.000	0.929	0.137	-0.972
WL2	3.162	1.000	4.000	0.886	0.289	-0.967
WL3	3.088	1.000	4.000	0.901	0.100	-0.877
WL4	3.143	1.000	4.000	0.875	0.266	-0.925
WL5	3.162	1.000	4.000	0.873	0.286	-0.943
WL6	3.179	1.000	4.000	0.892	0.427	-1.036
WL7	3.157	1.000	4.000	0.855	0.319	-0.915
WL8	3.168	1.000	4.000	0.878	0.246	-0.944
WL9	3.181	1.000	4.000	0.858	0.293	-0.934
WL10	3.184	1.000	4.000	0.897	0.390	-1.036
JS1	3.121	1.000	4.000	0.881	0.318	-0.940
JS2	3.143	1.000	4.000	0.869	0.416	-0.963
JS3	3.121	1.000	4.000	0.903	0.136	-0.916
JS4	3.140	1.000	4.000	0.864	0.229	-0.890
JS5	3.118	1.000	4.000	0.864	0.370	-0.923
JS6	3.115	1.000	4.000	0.869	0.297	-0.906
JS7	3.069	1.000	4.000	0.844	0.433	-0.874
JS8	3.129	1.000	4.000	0.882	0.346	-0.956
JS9	3.115	1.000	4.000	0.850	0.302	-0.869
JS10	3.118	1.000	4.000	0.883	0.217	-0.906
P1	3.118	1.000	4.000	0.852	0.376	-0.899
P2	3.085	1.000	4.000	0.849	0.208	-0.813
P3	3.104	1.000	4.000	0.864	0.243	-0.869
P4	3.129	1.000	4.000	0.882	0.276	-0.931
P5	3.060	1.000	4.000	0.862	0.381	-0.891
P6	3.168	1.000	4.000	0.881	0.359	-0.987
P7	3.159	1.000	4.000	0.891	0.289	-0.974
P8	3.110	1.000	4.000	0.889	0.318	-0.948
P9	3.069	1.000	4.000	0.882	0.174	-0.858
P10	3.099	1.000	4.000	0.896	0.126	-0.885

Internal Consistency and Convergent Validity

Table 3 presents the internal consistency of the model covering Cronbach's Alpha, Composite Reliability (CR), Average Variance Extracted (AVE), and factor loadings for each indicator. The results indicate that all constructs meet the established reliability standards. The Cronbach's Alpha values for the five constructs fall within the range of 0.948 to 0.966, far exceeding the minimum acceptable threshold of 0.70, which demonstrates strong internal consistency and suggests that the instrument reliably measures each variable. The Composite Reliability (CR) values also fall within the same high range, indicating that each construct has excellent measurement accuracy. Although CR values above 0.95 can suggest redundancy, in this study the high CR levels reflect the cohesiveness of items without showing problematic overlap, confirming that the indicators consistently represent their latent constructs.

Regarding convergent validity, all AVE values exceed 0.50, demonstrating that more than half of the variance of the observed indicators is explained by their respective latent variables, thereby supporting good convergent validity. Additionally, the factor loadings for all items meet the minimum requirement of 0.70, indicating that each item contributes adequately to explaining the associated construct. Collectively, these empirical results confirm that the measurement model satisfies the reliability and validity requirements, enabling further testing of the structural model and hypothesis evaluation with confidence.

Table 3 presents the model's internal consistency, including the Cronbach's alpha values for each construct, the Average Variance Extracted (AVE), Composite Reliability (CR), and the factor loadings of individual items. An AVE greater than 0.5 indicates that the latent construct accounts for at least half of the variance of its indicators, while a CR exceeding 0.7 suggests that the indicators reliably measure the latent variable (Abubakar et al., 2023). With values ranging from 0.948 to 0.966, the items in Table 3 meet the required reliability and validity standards. Additionally, the factor loadings are within acceptable statistical thresholds, confirming the adequacy of each item.

The convergent validity test has the principle that the manifest variables of a construct should be highly correlated and have sufficient loading scores. The criteria for the loading value are considered ideal with a minimum requirement of 0.7. The validity test uses Average Variant Extracted (AVE) and is declared valid if the value is at least 0.5 for each variable (Purwanto et al., 2023).

Regarding the Cronbach alpha index, it appears that all latent factors show high values with the recommended minimum value. Regarding the composite reliability coefficient (CR), a value higher than .70 indicates satisfactory reliability, while a CR greater than .95 may indicate redundancies in the indicators. All latent factors showed satisfactory CRs. Finally, regarding the convergent validity, average variance extracted (AVE) values greater than 0.5 indicate that the constructs can evaluate the proposed model well (Habibi et al., 2024). It is confirmed that all AVE values are at the recommended threshold.

Discriminant Validity

Discriminant validity ensures that each reflective indicator measures only its intended construct and does not strongly correlate with other constructs. In SmartPLS, it is assessed using three main methods: Cross Loadings, the Fornell-Larcker Criterion, and the Heterotrait-Monotrait Ratio (HTMT) (Furadatin, 2018). Discriminant validity is achieved when the square root of AVE ($\sqrt{AVE}$) exceeds the construct's correlations with others, and an AVE > 0.50 indicates good convergent and discriminant validity. Additionally, cross loading values ≥ 0.70 suggest that an indicator loads more strongly on its own construct than on others (Fanulene & Soediantono, 2022). Finally, an HTMT value below 0.90 (or 0.85 for stricter standards) also confirms discriminant validity. Together, these criteria support the distinctiveness and validity of the constructs within the model.

Structural Model Assessment

The structural model (inner model) represents the hypothesized relationships between latent variables and is evaluated to determine how well it predicts the endogenous (dependent) variables. Key evaluation metrics include the coefficient of determination (R^2), effect size (f^2), predictive relevance (Q^2), and t-statistics (Fanulene & Soediantono, 2022).

The R^2 value indicates how much variance in the endogenous variable is explained by exogenous variables. An R^2 near 1 suggests strong predictive power. According to Ghozali and Latan (2015), R^2 values of 0.67, 0.33, and 0.19 indicate strong, moderate, and weak models respectively (Kristiani et al., 2022). Similarly, (Purwanto et al., 2023) classify R^2 as:

1. 0.25–0.50: Weak
2. 0.50–0.75: Moderate
3. 0.75: Substantial

A good structural model has a high R^2, meaning the exogenous variables effectively explain the endogenous ones. Additionally, f^2 measures the effect size of individual predictors, Q^2 assesses predictive relevance through blindfolding, and t-statistics test the significance of each path.

Table 3. Loading, a, CR, AVE

Code	Loading	Alpha	CR	AVE
Innovative Work behavior		0.955	0.962	0.762
IWB1	0.836			
IWB2	0.876			
IWB3	0.898			
IWB4	0.885			
IWB5	0.876			
IWB6	0.881			
IWB7	0.866			
IWB8	0.864			
Job Satisfaction		0.964	0.968	0.754
JS1	0.848			
JS10	0.855			
JS2	0.885			
JS3	0.848			
JS4	0.880			
JS5	0.865			
JS6	0.874			
JS7	0.875			
JS8	0.873			
JS9	0.877			
Performance		0.961	0.966	0.738
P1	0.863			
P10	0.819			
P2	0.867			
P3	0.868			
P4	0.869			
P5	0.866			
P6	0.869			
P7	0.875			
P8	0.855			
P9	0.840			
Transformasional Leadership		0.948	0.959	0.795
TL1	0.894			
TL2	0.900			
TL3	0.883			

Code	Loading	Alpha	CR	AVE
TL4	0.917			
TL5	0.881			
TL6	0.876			
Workload		0.966	0.970	0.764
WL1	0.845			
WL10	0.849			
WL2	0.866			
WL3	0.863			
WL4	0.876			
WL5	0.880			
WL6	0.909			
WL7	0.893			
WL8	0.877			
WL9	0.880			

Convergent and discriminant validity tests are used to evaluate the outer model. The model's capacity to be measured by the designated indicators is evaluated using the Composite Reliability (CR), Cronbach Alpha (CA), and Average Variance Extracted (AVE) values. Nonetheless, the Cronbach Alpha and Composite Reliability ratings have the same meaning. According to (Suntara et al., 2023), composite dependability is a metric used to assess how effectively the model is measured by the designated indicators.

A value known as outer loading describes the correlation or relationship between an indicator and its latent variable. The correlation between an indicator and its hidden variable increases with increasing outer loading. It is allowed to have an outer loading value greater than 0.7. However, the analysis method consistently excludes the outer loading value <0.4. When an indicator's outer loading value is more than 0.7, its latent variable can account for 0.72 = 50% of its variability. When removal raises the composite reliability or average variance value, the outer loading value of 0.4–0.7 can often be taken into consideration (Setiabudhi et al., 2025).

The analysis results show that innovative work behavior has a very high level of reliability with a Cronbach alpha value of 0.955 and CR 0.962 and AVE 0.762, where all measurement items show significant loading. Similarly, job satisfaction recorded a Cronbach alpha value of 0.964 and CR of 0.968, with an AVE of 0.754, indicating that each item from JS1 to JS10 contributed positively. Performance also showed solid results with Cronbach alpha 0.961, CR 0.966 and AVE 0.738, all performance items showed good loading. In addition, transformational leadership has a Cronbach alpha value of 0.948, CR 0.959 with an AVE of 0.795, indicating high reliability in its measurement. Finally, workload shows a Cronbach alpha value of 0.966, CR 0.970 and AVE 0.764, indicating that all aspects of workload measurement are well measured. Overall, all items in this study showed adequate reliability and validity, supporting further analysis of relationships between variables.

Table 4. Fornell larcker critetion

	Innovative Work Behaviour	Job Satisfaction	Performance	Transformational Leadership	Workload
Innovative Work behaviour	0.873				
Job Satisfaction	0.909	0.868			
Performance	0.911	0.940	0.859		
Transformational Leadership	0.902	0.881	0.894	0.892	
Workload	0.923	0.942	0.924	0.893	0.874

The analysis using the Fornell-Larcker Criterion assesses discriminant validity in this study. The diagonal values represent the square roots of the AVE for each construct, indicating how well each construct explains its indicators. Since all AVE values exceed 0.5, the constructs demonstrate adequate discriminant validity. This confirms that each construct is distinct and does not significantly overlap with others, thereby supporting the model's reliability and validity for further interpretation.

Table 5. Cross loading

	1	2	3	4	5
IWB1	0.836	0.778	0.784	0.778	0.780
IWB2	0.876	0.781	0.798	0.795	0.814
IWB3	0.898	0.810	0.801	0.792	0.827
IWB4	0.885	0.797	0.802	0.792	0.804
IWB5	0.876	0.801	0.786	0.811	0.800
IWB6	0.881	0.797	0.804	0.789	0.799
IWB7	0.866	0.788	0.783	0.752	0.787
IWB8	0.864	0.795	0.806	0.791	0.831
JS1	0.794	0.848	0.815	0.757	0.833
JS10	0.763	0.855	0.804	0.735	0.796
JS2	0.813	0.885	0.855	0.784	0.856
JS3	0.748	0.848	0.785	0.750	0.795
JS4	0.812	0.880	0.815	0.789	0.829
JS5	0.785	0.865	0.815	0.761	0.835
JS6	0.798	0.874	0.808	0.770	0.811
JS7	0.780	0.875	0.826	0.761	0.806
JS8	0.789	0.873	0.816	0.777	0.809
JS9	0.806	0.877	0.818	0.766	0.806
P1	0.801	0.819	0.863	0.774	0.812
P10	0.752	0.779	0.819	0.749	0.761
P2	0.804	0.818	0.867	0.786	0.794
P3	0.772	0.794	0.868	0.765	0.777
P4	0.800	0.813	0.869	0.772	0.804
P5	0.786	0.824	0.866	0.782	0.800
P6	0.774	0.816	0.869	0.756	0.810
P7	0.806	0.841	0.875	0.772	0.818

	1	2	3	4	5
P8	0.767	0.791	0.855	0.760	0.789
P9	0.765	0.781	0.840	0.760	0.770
TL1	0.803	0.805	0.824	0.894	0.807
TL2	0.799	0.783	0.808	0.900	0.800
TL3	0.792	0.780	0.781	0.883	0.783
TL4	0.830	0.805	0.815	0.917	0.832
TL5	0.785	0.756	0.766	0.881	0.761
TL6	0.818	0.785	0.785	0.876	0.790
WL1	0.809	0.773	0.769	0.785	0.845
WL10	0.791	0.816	0.798	0.771	0.849
WL2	0.800	0.797	0.790	0.775	0.866
WL3	0.769	0.821	0.782	0.755	0.863
WL4	0.799	0.839	0.807	0.781	0.876
WL5	0.826	0.820	0.807	0.788	0.880
WL6	0.838	0.878	0.867	0.812	0.909
WL7	0.813	0.840	0.819	0.766	0.893
WL8	0.809	0.823	0.805	0.771	0.877
WL9	0.812	0.824	0.829	0.797	0.880

Cross loading values are used to assess discriminant validity by comparing an indicator's loading on its assigned construct with its loadings on other constructs. A construct demonstrates good discriminant validity when its indicators load highest on their respective latent variables. As shown in the data, each indicator has the highest loading on its corresponding construct. According to (Furadatin, 2018), a cross loading value above 0.70 is considered acceptable.

Each item shows a higher loading value on its intended construct compared to other constructs. This reflects that each indicator significantly correlates with its latent variable, which confirms that the measured construct has good validity. The results of this analysis show that all indicators are able to explain the variability associated with their respective constructs, giving confidence that the model used in this research is reliable. Thus, the cross-loading analysis supports construct validity, which is important to ensure that the research findings can be accepted and interpreted appropriately.

Table 6. Structural model

	Relationship	VIF	Path Coefficients	STDEV	t-value	p-values	Supported	f
H1	Innovative Work behavior → Job Satisfaction	8.497	0.202	0.088	2.306	0.021	YES	0.048
H2	Innovative Work behavior → Performance	8.908	0.171	0.070	2.441	0.015	YES	0.037
H3	Job Satisfaction → Performance	10.052	0.497	0.074	6.735	0.000	YES	0.274
H4	Transformational Leadership → Innovative Work behavior	4.917	0.386	0.064	5.999	0.000	YES	0.258
H5	Transformational Leadership → Job Satisfaction	6.186	0.120	0.047	2.571	0.010	YES	0.024
H6	Transformational Leadership → Performance	6.332	0.173	0.050	3.492	0.000	YES	0.053
H7	Workload → Innovative Work behavior	4.917	0.578	0.066	8.785	0.000	YES	0.578
H8	Workload → Job Satisfaction	7.758	0.648	0.088	7.322	0.000	YES	0.544
H9	Workload → Performance	11.978	0.143	0.071	2.020	0.043	YES	0.019

In order to observe the relationship between the influence of the independent variable and the dependent variable, the SmartPLS 4.0 application bootstraps the hypothesis acceptance criterion. If the t-statistic value is more than the t-table (1.96) and the P-value is less than 0.5, the hypothesis is considered significant and accepted (Saputro & Oetomo, 2023). To examine the relationship between the independent and dependent variables, hypothesis testing was conducted using the bootstrapping procedure in the SmartPLS 4.0 application. The acceptance of the hypothesis is based on the significance level indicated by the t-value and p-value. A t-statistic value greater than 1.96 indicates that the effect is statistically significant at the 5% significance level ($\alpha = 0.05$), meaning that the observed relationship is unlikely to occur by chance. In addition, a p-value less than 0.05 also confirms statistical significance, demonstrating strong evidence against the null hypothesis. Therefore, when the t-statistic exceeds 1.96 and the p-value is below 0.05, the proposed hypothesis is considered significant and accepted.

Based on the data analysis, innovative work behavior has been proven to significantly influence job satisfaction, as indicated by a t-value of 2.306, which exceeds the critical threshold of 1.96 at the 5% significance level. Moreover, innovative work behavior also has a significant impact on performance, with a t-value of 2.441, surpassing the required threshold. Job satisfaction itself shows a strong and significant effect on performance, evidenced by a t-value of 6.735, which is well above the critical value, suggesting that higher job satisfaction contributes positively to employee performance.

Furthermore, transformational leadership plays a crucial role in fostering innovative work behavior, as reflected in a t-value of 5.999. This leadership style also significantly influences job satisfaction, with a t-value of 2.571, and has a direct positive effect on performance, indicated by a t-value of 3.492. These findings highlight that leaders who inspire and motivate their teams can enhance innovation, satisfaction, and overall performance in the workplace.

In addition, workload is found to have a significant impact on innovative work behavior, supported by a high t-value of 8.785. It also significantly affects job satisfaction, as shown by a t-value of 7.332, and influences performance with a t-value of 2.020. These results suggest that a well-managed workload can encourage innovative behavior, boost job satisfaction, and ultimately lead to improved employee performance.

Table 6 summarizes the structural model analysis results, showing the relationships among study variables through path coefficients, VIF values, and p-values. Positive path coefficients indicate that increases in independent variables lead to positive changes in the dependent variables. For instance, the link between innovative work behavior and job satisfaction shows a significant p-value ($p < 0.05$), confirming the hypothesis and indicating that greater innovation contributes to higher teacher satisfaction. Moreover, all VIF values are within acceptable ranges, suggesting no multicollinearity issues and supporting the model's statistical reliability.

Overall, the structural model results support all the proposed hypotheses. These findings demonstrate that the proposed model effectively explains the relationships among transformational leadership, innovative work behavior, workload, job satisfaction, and performance, providing meaningful insights into the key factors influencing educator performance in Kerinci Regency. The validated model thus contributes significantly to both academic understanding and practical policy considerations in the field of educational management.

Figure 2 displays the final path analysis results using SmartPLS, visually depicting the structural relationships among variables in the research model. The path coefficients indicate the strength and direction of influence between constructs, while R-square (R^2) values on endogenous variables show how much variance is explained by the independent variables. Higher R^2 values reflect strong model fit and explanatory power. The findings reveal that transformational leadership, innovative work behavior, workload, and job satisfaction significantly explain variations in teacher performance. All paths are positive and statistically significant, supporting the proposed hypotheses. This model underscores the interconnected effects of these variables, where leadership and workload influence innovation and satisfaction, which in turn enhance performance. Overall, the analysis offers valuable insights into the dynamics within education, providing implications for policy and management strategies to boost teacher performance and learning outcomes.

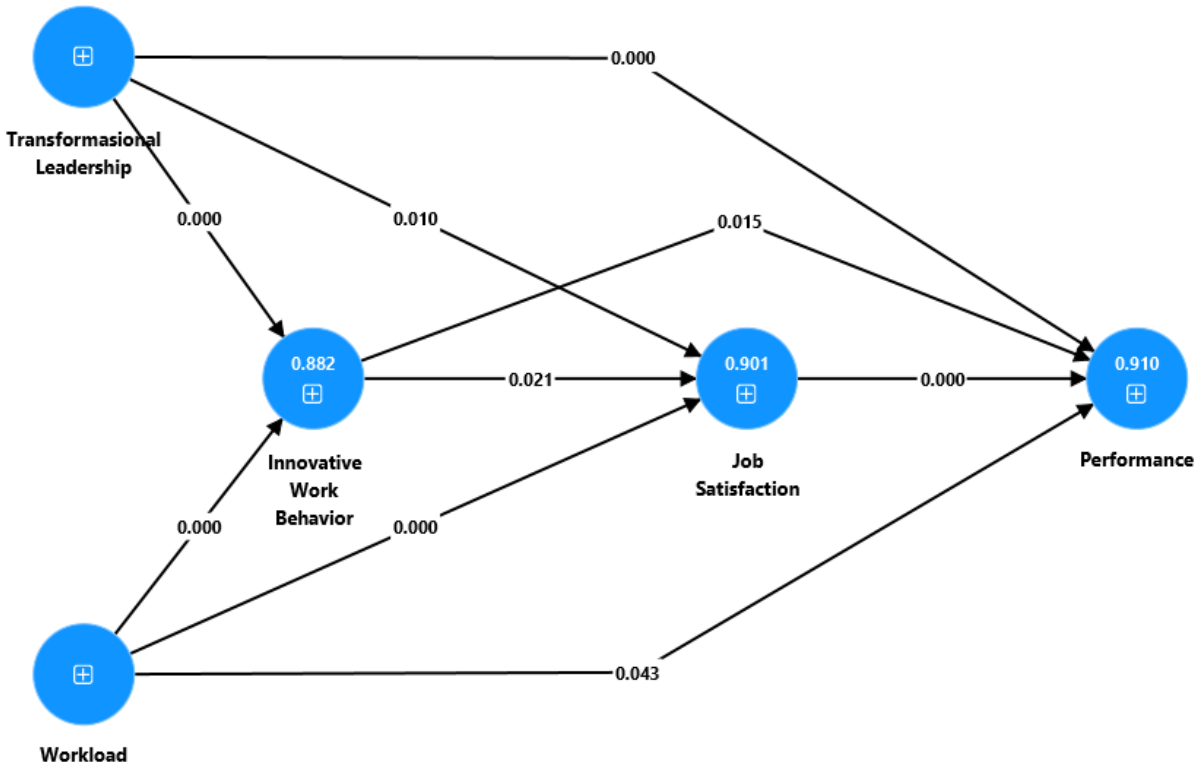

Figure 2. Smart-PLS Path Analysis with R-square value

Discussion

The findings of this study reveal a series of significant interrelationships among innovative work behavior, job satisfaction, transformational leadership, workload, and teacher performance. Innovative work behavior is shown to have a significant positive effect on job satisfaction ($p < 0.05$; $t > 1.96$), suggesting that teachers who generate ideas, apply creative methods, and adapt to changes in the classroom tend to experience higher job satisfaction. This aligns with Situmorang (2014), who found that innovative behavior positively influences job satisfaction, explaining 15.9% of its variance. Furthermore, innovative work behavior also significantly influences teacher performance ($p < 0.05$; $t > 1.96$), as educators who use creative strategies in addressing instructional challenges tend to improve both teaching effectiveness and student outcomes, consistent with findings by Siregar & Suma (2024) at PTPN III Medan.

In addition, job satisfaction is significantly correlated with performance ($p < 0.05$; $t > 1.96$), indicating that satisfied teachers due to factors such as fair compensation, supportive leadership, and a positive work environment are more committed and proactive in their duties. This supports the findings of Sari et al. (2022), who emphasized job satisfaction as a primary driver of teacher performance. Transformational leadership also plays a pivotal role, significantly influencing innovative work behavior ($p < 0.05$; $t > 1.96$), where principals who inspire, motivate, and empower teachers promote confidence and openness to new ideas, as supported by Wardhani & Gulo (2017). Similarly, transformational leadership has a significant impact on job satisfaction ($p < 0.05$; $t > 1.96$), where leaders who recognize contributions and support professional growth enhance teacher engagement and well-being, aligning with Widyatmika & Riana (2020). Moreover, transformational leadership positively affects performance ($p < 0.05$; $t > 1.96$), with principals guiding teachers toward shared goals, fostering a collaborative environment and improving outcomes consistent with Addin et al. (2020), who found similar results in madrasah settings.

The study also identifies workload as a significant factor influencing innovative work behavior, job satisfaction, and employee performance. The mechanism underlying these relationships can be explained through the mediating role of innovative work behavior and job satisfaction. When employees experience an optimal and well-managed workload, they tend to feel more challenged and motivated, which stimulates creative problem-solving and encourages innovative work behavior. In turn, increased innovative behavior enhances job satisfaction, as employees perceive greater autonomy and recognition for their contributions. This improvement in job satisfaction subsequently leads to higher employee performance. Therefore, the effect of workload on performance is not only direct but also indirect through the sequential mechanism: workload → innovative work behavior → job satisfaction → performance. This inter-variable interaction illustrates how psychological and behavioral responses act as pathways that translate workload into improved performance outcomes. A well-structured workload can stimulate innovation ($p < 0.05$; $t > 1.96$), especially when aligned with teachers' capacities, encouraging creative problem-solving and improved teaching practices. This supports Muzayyanah (2023), who found that workload positively influences innovative work behavior. Additionally, workload significantly affects job satisfaction ($p < 0.05$; $t > 1.96$); when tasks are manageable and matched to abilities, teachers experience less stress and greater fulfillment. However, excessive workload can diminish satisfaction, as noted by Yo & Surya (2015), who highlighted the negative impact of job stress, and by Safitri et al. (2019), who reported that high workload leads to decreased job satisfaction. Finally, workload also has a significant impact on performance ($p < 0.05$; $t > 1.96$), where clear, appropriate tasks enhance focus and motivation, leading to better outcomes. This finding aligns with (Ralos et al., 2018), who reported that while excessive workload hampers performance, a balanced workload improves employee effectiveness. The relevance of this relationship is particularly evident in the context of the Kerinci region, where geographical dispersion of schools, limited educational resources, and high administrative demands often increase teachers' workload. In such conditions, leadership support and innovative work practices become crucial coping mechanisms that enable teachers to maintain job satisfaction and performance. Teachers in Kerinci frequently implement creative approaches to overcome infrastructure limitations such as integrating local cultural values into learning and utilizing community support demonstrating how innovation and positive leadership interactions can mitigate workload pressure. Therefore, these findings underscore the interconnected roles of innovation, leadership, and workload in enhancing teacher satisfaction and performance within Kerinci's unique educational environment, ultimately supporting the advancement of educational quality in the region.

CONCLUSION

This study highlights the vital role of transformational leadership in shaping innovative work behavior and job satisfaction among educators in Kerinci Regency. The strongest finding of this research is that workload demonstrates the most dominant influence compared to other variables, particularly in predicting job satisfaction ($\beta = 0.648$; $t = 7.322$) and innovative work behavior ($\beta = 0.578$; $t = 8.785$). This indicates that well-managed workloads serve as a key driver motivating teachers to innovate and increasing their level of satisfaction, ultimately leading to improved performance. Additionally, innovative work behavior and job satisfaction are identified as significant predictors of teacher performance, demonstrating that teachers who actively develop new teaching ideas and feel satisfied with their work perform substantially better in the classroom. These findings reinforce the importance of creating work environments that support creativity, balanced responsibilities, and transformational leadership practices.

The contextual relevance of Kerinci Regency further strengthens these results. As a geographically remote and rural region with dispersed schools, limited technological support, and high administrative burdens, balanced workload and inspirational leadership are critical mechanisms for sustaining teacher motivation and innovation. School leaders who inspire, empower, and provide professional support enable teachers to adapt to resource constraints and develop innovative solutions aligned with local educational needs. Based on these findings, several future research directions are recommended. First, future studies should examine the mediating role of psychological well-being,

organizational commitment, or technology readiness to further understand how these factors interact with innovation and job satisfaction. Second, comparative research between rural and urban districts could clarify how geographical context moderates the relationships among workload, innovation, and performance. Third, qualitative or mixed-method approaches are encouraged to explore teachers' real experiences and contextual challenges in depth, particularly related to digital transformation and post-pandemic learning. In conclusion, adopting transformational leadership and managing workloads effectively are essential strategies for developing an innovative, motivated, and high-performing educational environment. These insights provide a valuable foundation for policymakers and school leaders aiming to enhance teacher professionalism and improve educational quality, particularly within rural settings like Kerinci Regency.

REFERENCES

Abubakar, R., Rifandi, M., Rahmawati, R., & Fatimah. (2023). Analisis faktor-faktor penghambat penyelesaian studi mahasiswa program studi matematika Universitas Sulawesi Barat menggunakan PLS-SEM. *Jambura Journal of Probability and Statistics*, *4*(1), 9-16. Https://Doi.Org/10.34312/Jjps.V4i1.19240

Addin, F. N., Kejora, M. T. B., & Kosim, A. (2020). Pengaruh kepemimpinan transformasional kepala madrasah terhadap kinerja guru di Madrasah Aliyah Ghoyatul Jihad Kabupaten Karawang. *Idaarah: Jurnal Manajemen Pendidikan*, *Iv*(2), 153–166.

Agustina, Bahri, S., & Raharjo, S. B. (2024). Pengaruh kepuasan kerja terhadap kinerja guru. *Edunomika*, *08*(01), 1–4.

Ahyani, N. (2020). Pengaruh disiplin dan profesionalisme guru terhadap kinerja guru. *Journal Of Education Research*, *1*(3), 200–205.

Aziz, A. A. (2020). Hubungan kekuatan otot lengan terhadap servis atas bolavoli pada siswa ekstrakurikuler SMK harapan bangsa Bojonghaur tahun 2018/2019. *Jurnal Utile*, *VI*(I), 111–120. Jurnalummi.Agungprasetyo.Net/Index.Php/Jut/Article/View/764/

Direktorat Jenderal Pendidikan Anak Usia Dini, P. D. Dan P. M. (2025). *Data Guru Kab. Kerinci*. Data Pokok Pendidikan (Dapodik). Https://Dapo.Dikdasmen.Go.Id/Guru/2/100500

Efendi, F., Sunaryo, H., & Harijanto, D. (2023). Efektivitas kepemimpinan transformasional kepala sekolah melalui komitmen kerja terhadap kinerja guru merdeka belajar. *Jurnal Akuntabilitas Manajemen Pendidikan*, *11*(2), 19–32.

Fakhrurrazi, F., Syah, F., Sembiring, I. M., Azmi, H., Wijaya, C. (2021). Kepemimpinan dan motivasi kepala sekolah terhadap kinerja guru di Madrasah Tsanawiyah Darul Huda Kota Langsa. *Edukasi Islami: Jurnal Pendidikan Islam*,*10*(2).

Fanulene, T. D., & Soediantono, D. (2022). Manajemen rantai pasok pada industri pertahanan di era industri 4 . 0 dan digital. *Journal Of Industrial Engineering & Management Research (Jiemar)*, *3*(4), 77–85.

Fitria, A. S., & Limgiani, L. (2024). Pengaruh beban kerja dan disiplin kerja terhadap kinerja guru (literature review). *Journal Of Student Research (Jsr)*, *2*(4), 141–155. Https://Doi.Org/10.55606/Jsr.V2i4.3163

Furadatin, N. R. (2018). Analisis data menggunakan aplikasi SmartPLS v.3.2.7 2018. *Academia.Edu*, *1*(1), 1–8.

Habibi, A., Mukminin, A., Octavia, A., Wahyuni, S., Kopong, B., & Gusti, Y. (2024). Social sciences & humanities open chatgpt acceptance and use through UTAUT and TPB : a big survey in five Indonesian universities. *Social Sciences & Humanities Open*, *10*(September), 101136. Https://Doi.Org/10.1016/J.Ssaho.2024.101136

Hardianto, H., Hidayat, H., & Zulkifli, Z. (2021). Perilaku kerja inovatif bagi guru dan tenaga kependidikan. *JPPI : Jurnal Penelitian Pendidikan Indonesia*, *7*(1), 112–119.

Handariani, I. N. L., Suarmanayasa, I. N., & Widiastini, N. M. A. (2023). Pengaruh beban kerja, komunikasi dan kepuasan kerja terhadap kinerja guru. *Cakrawala Repositori Imwi*, *6*(3), 386–398. Https://Doi.Org/10.52851/Cakrawala.V6i3.365

Indahsari, S. R., Nurhajati, & Wahono, B. (2025). Pengaruh pengalaman kerja, disiplin kerja dan kepuasan kerja terhadap kinerja guru (studi kasus pada guru SMA Negeri 01 Batu). *E-Jurnal Riset Manejemem*, *14*(01), 375–384.

Ismiantri, Firda D., & Mulyana, O. P. (2021). *Perbedaan perilaku kerja inovatif pada guru ditinjau dari karakteristik sekolah*. 1–12.

Jalil, A. (2020). Pengaruh beban kerja, stres kerja dan lingkungan kerja terhadap kinerja guru madrasah Aliyah Negeri 2 kota Palu. *Jurnal Ilmu Perbankan Dan Keuangan Syariah*, *1*(2), 117–134. Https://Doi.Org/10.24239/Jipsya.V1i2.14.117-134

Josephine, A., Febriantina, S., & Marsofiyanti. (2023). Perilaku kerja inovatif guru Sekolah Menengah Kejuruan (SMK) swasta di Jakarta Timur. *Jurnal Pendidikan : Seroja*, *2*(3), 139–150.

Kristiani, A., Putriana, L., & Salim, F. (2022). Pengaruh penilaian kinerja, disiplin kerja, dan kompensasi terhadap kinerja karyawan melalui motivasi sebagai variabel intervening di PT. MMS Group Indonesia. *Jurnal Cafetaria*, *3*(2), 38–50.

Murtafiah, N. H. (2022). Manajemen pengendalian kinerja pendidik dalam meningkatkan mutu pembelajaran pada lembaga pendidikan islam. *Jurnal Pendidikan Dan Konseling*, *4*(6), 4614–4618.

Musa, M. I., & Ruma, Z. (2022). Pengaruh beban kerja dan lingkungan kerja terhadap stres kerja guru di SMAN 12 Enrekang Sawal Universitas Negeri Makassar. *Educatioanl Journal: General And Specific Research*, *2*(2), 249–261.

Muzayyanah, N. (2023). *Pengaruh beban kerja mental terhadap perilaku kerja inovatif: menguji peran moderasi iklim organisasi inovasi*. Universitas Muhammadiyah Malang.

Patricia, E. M., & Purnama, E. D. (2024). Pengaruh beban kerja terhadap inovasi pengajaran yang dimediasi kepuasan dan dimoderasi oleh dukungan manajerial (studi kasus di SMPK Kalam Kudus 3 Jakarta). *Jmpis : Jurnal Manajemen Pendidika Dan Ilmu Sosial*, *5*(5), 1870–1881.

Priyono, B. H., Qomariah, N., & Winahyu, P. (2018). Pengaruh gaya kepemimpinan, motivasi guru dan lingkungan kerja fisik terhadap kinerja guru SMAN 1 Tanggul Jember. *Jurnal Manajemen Dan Bisnis Indonesia*, *4*(2), 144. Https://Doi.Org/10.32528/Jmbi.V4i2.1758

Purwanto, Y., Sahetapy, L., Management, P. B., Manajemen, P. S., Bisnis, F., & Siwalankerto, J. (2023). Pengaruh content marketing dan influencer endorser terhadap purchase intention pada brand skincare Somethinc. *Agora*, *10*(1), 1–6.

Putra, B. A. M. (2023). Pengaruh beban kerja dan kompensasi terhadap kinerja guru. *Jurnal Bisnisman : Riset Bisnis Dan Manajemen*, *4*(3), 62–76. Https://Doi.Org/10.52005/Bisnisman.V4i3.119

Ralos, J. K. R., Sambul, S. A. P., & Rumawas, W. (2018). Pengaruh beban kerja terhadap kinerja karyawan. *Jurnal Administrasi Bisnis*, *6*(4), 19–27.

Ratnasari, S. L. (2020). Bagaimana upaya meningkatkan kinerja guru. *Jurnal Bening*, *7*(1), 119–125.

Rifa'i, A. A. (2020). Pengaruh kepemimpinan transformasional kepala sekolah dan budaya kerja terhadap peningkatan kinerja guru. *Indonesian Journal Of Education Managemen & Administration Review*, *4*(1).

Safitri, H. U. (2020). Hubungan beban kerja dengan stres kerja. *Psikoborneo: Jurnal Ilmiah Psikologi*, *8*(2), 174. Https://Doi.Org/10.30872/Psikoborneo.V8i2.4897

Safitri, L. N., Astutik, M., Safitri, L. N., Astutik, M., & Kerja, S. (2019). Pengaruh beban kerja terhadap kepuasan kerja perawat dengan mediasi stress kerja. *Jurnal Riset Manajemen Dan Bisnis Dewantara*, *2*(1), 13–26.

Saputra, S. W., & Marlius, D. (2023). Pengaruh beban kerja, motivasi kerja dan kepuasan kerja terhadap kinerja karyawan pada PDAM Tirta Sanjung Buana Sijunjung. *Jurnal Menejemen Dan Akuntansi*, *1*(2), 135–148.

Saputro, A. W., & Oetomo, H. (2023). Pengaruh e-service quality terhadap e-loyalty dengan brand image dan e-satisfcation sebagai variabel mediasi. *Determinant Of Electronic Customer Loyalty*, *11*(2), 197–212. Https://Doi.Org/10.37641/Jimkes.V11i2.1750

Sari, H. Fitri R., Ekawarna, & Sulistiyo, U. (2022). Pengaruh stres kerja , motivasi kerja dan kepuasan kerja terhadap kinerja guru. *Edukatif : Jurnal Ilmu Pendidikan*, *4*(1), 1204–1211.

Setiabudhi, H., Suwano, Setiawan, Yudi A., & Karim, S. (2025). *Analisis data kuantitatif dengan SmartPLS 4* (I. P. H. H. Duari (Ed.); 1st Ed.). Borneo Novelty Publishing.

Sinaga, A. T. I. (2023). Pengaruh perilaku kerja inovatif terhadap kinerja Aparatur Sipil Negara (ASN) di Provinsi Sumatera Utara. *Jbm : Journal Business And Management*, *1*(1), 24–34.

Siregar, B. A., & Suma, D. (2024). Pengaruh kapabilitas kerja dan perilaku kerja inovatif terhadap kinerja karyawan PTPN III kota Medan. *Management Studies And Entrepreneurship Journal*, *5*(2), 9603–9610.

Situmorang, B. (2014). Pengaruh perilaku inovatif dan kepemimpinan pembelajaran terhadap kepuasan kerja kepala SMP di Medan. *Elementary School Journal*, *1*(2), 26–41.

Sofyan, S., Habibi, A., & Attar, R. W. (2025). The impact of global-intercultural competence and social capital on students ' motivation to participate in exchange programs : A Pls-Sem Approach . *Power And Education*, *0*(0), 1–19. Https://Doi.Org/10.1177/17577438251331917

Sudrajat, H., & Samudera, W. (2021). *Validitas dan reliabelitas angket transformasional dan perilaku kerja inovatif kepemimpinan*. *4*(01), 296–303.

Suntara, A. A., Widagdo, P. P., & Kamila, V. Z. (2023). Analisis penerapan model unified theory of acceptance and use of technology (UTAUT) terhadap perilaku pengguna sistem informasi uang kuliah tunggal Universitas Mulawarman. *Kreatif Teknologi Dan Sistem Informasi (Kretisi)*, *1*(1), 1–8.

Supandi, S. R. (2023). Pengaruh kepemimpinan transformasional kepala sekolah terhadap kinerja guru. *Jurnal Pendidikan Dan Kewirausahaan*, *11*(1), 113–128.

Tarjo. (2019). Pengaruh motivasi kerja dan kepuasan kerja terhadap kinerja karyawan (studi pada RSUD H. Hanafie Muara Bungo). *Jurnal Aplikasi Manajemen Dan Inovasi Bisnis*, *2*(1), 53–65.

Wahdaniyah, N., & Miftahuddin, M. (2019). Pengaruh hardiness, beban kerja, dan faktor demografi terhadap stres kerja guru. *Tazkiya: Journal Of Psychology*, *6*(1), 69–84. Https://Doi.Org/10.15408/Tazkiya.V6i1.11010

Wahyuni, S., Hartinah, S., & Prihatin, Y. (2024). Pengaruh kepemimpinan, motivasi, beban kerja, kompetensi dan religiusitas terhadap kinerja guru sekolah dasar. *Journal Of Education Research*, *5*(3), 4060–4072. Https://Doi.Org/10.37985/Jer.V5i3.1544

Wardhani, D. T., & Gulo, Y. (2017). Pengaruh iklim organisasi, kepemimpinan transformasional dan self efficacy terhadap perilaku kerja inovatif. *Jurnal Bisnis Dan Akuntansi*, *19*(1), 212–217.

Widayati, F., Fitria, H., & Fitriani, Y. (2020). Pengaruh kepuasan kerja dan loyalitas kerja terhadap kinerja guru. *Journal of Education Research*, *1*(3), 251–257.

Widyatmika, I. D. G. A. P., & Riana, I. G. (2020). Pengaruh kepemimpinan transformasional terhadap komitmen organisasional, dengan kepuasan kerja sebagai variabel mediasi. *E-Jurnal Manajemen*, *9*(10), 3486–3505.

Yo, P. M. P., & Surya, I. B. K. (2015). Pengaruh beban kerja terhadap kepuasan kerja dengan stres kerja sebagai variabel mediasi. *E-Jurnal Manajemen Unud*, *4*(5), 1149–1165.