Journal : Journal of Management and Innovation Entrepreneurship (JMIE),
Publisher : Yayasan Nuraini Ibrahim Mandiri
ISSN : e-ISSN 3026-6505
Volume / Issue / Year/ Page : 4/ 1/ 2026: October / 554 -570

THE ROLE OF WORK COMMITMENT IN MODERATING HUMAN RESOURCES COMPETENCY AND WORKLOAD ON PUBLIC SECTOR EMPLOYEE PERFORMANCE

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Article Information

Submission	:	03-09-2026
Review	:	07-09-2026
Revised	:	30-09-2026
Accepted	:	17-10-2026
Published	:	30-10-2026

Keywords
HR Competency, Workload, Work Commitment, Employee Performance, Public Sector

Abstract

This study examines the effects of Human Resources (HR) competency and workload on employee performance at the Environmental Agency of Lubuklinggau City, and tests whether work commitment moderates these relationships. The agency's employees have struggled to meet performance targets, reflected in low participation in technical training (only 6 of 50 employees trained as of 2025) and below-target environmental indicators such as water-pollution control and waste management coverage. Using a quantitative approach with a saturated sample of all 50 employees, data were analyzed through simple linear regression and Moderated Regression Analysis (MRA). The results show that HR competency (B = 1.176; t = 7.803; p = 0.000), workload (B = 0.361; t = 6.381; p = 0.000), and work commitment (B = 0.530; t = 6.257; p = 0.002) each have a significant partial effect on employee performance. Work commitment also significantly moderates both relationships, strengthening the effect of competency on performance (interaction t = 8.189; p = 0.001) and the effect of workload on performance (interaction t = 7.095; p = 0.004). These findings indicate that competency and workload translate into stronger performance gains specifically when employees are highly committed, with practical implications for how the Environmental Agency's leadership should combine competency development and workload management with deliberate efforts to build employee commitment, rather than pursuing either lever in isolation.

How To Cite: Sitepu, M. J. I., Rimbano, D., & Yusuf, M. (2026). The role of work commitment in moderating human resources competency and workload on public sector employee performance. *Journal of Management and Innovation Entrepreneurship (JMIE)*, 4(1), 554–570. https://doi.org/10.70248/jmie.v4i1.4642

DOI : https://doi.org/10.70248/jmie.v4i1.4642
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INTRODUCTION

Human resources (HR) are as asset for any organization, whether in the government or private sector. As technology and information systems evolve, high-quality human resources become increasingly important to securing an organization's vision and mission. Without employees who have adequate competence and capacity, available facilities and resources cannot produce optimal performance, because HR is the only organizational resource capable of thinking, feeling, and innovating. Improving performance therefore requires sustained attention to competency development. A study of social service organisations found that expanding competences is associated with continuing education and with defining a set of professional competences for each

job, and concluded that competency development should be part of workforce development planning (Ježková Petrů & Zychová, 2023).

Competence integrates knowledge, understanding, values, skills, attitudes, and interests that enable task performance at an established standard. It has been treated as an antecedent of performance and competence-based interventions and assessments have been linked to performance improvements (Wirawan, 2023). Evidence from other occupational settings points in the same direction: competency has been found to mediate, together with work engagement, the link between nurses' proactive personality and job performance (Hu et al., 2021), and accounting graduates' competences have been connected to job performance, with continuing professional development as a mediating factor (Kwarteng & Servoh, 2022). Workload is another important factor. Overload can harm employee health and reduce productivity, while underload creates inefficiency, and uneven distribution can disrupt a harmonious work climate. Several studies identify workload as a significant predictor of performance, with boundary conditions shaping the strength of this relationship (Amir et al., 2023; Irfan et al., 2023; Saputra et al., 2023). In the job demands–resources (JD-R) framework, workload is a job demand, and job demands and resources influence performance through employee well-being (Bakker et al., 2023). Recent studies report that a heavier workload is associated with lower task and contextual performance among teachers (Gan, 2025), and mental workload has been examined in relation to presenteeism, absenteeism, and job performance among surgeons, with occupational fatigue as a mediator (Esmaeili et al., 2023). Its relevance as a driver of performance and well-being is also evident in healthcare and manufacturing contexts (Saputra et al., 2023; Vosoughi et al., 2024). Perceived workload and individual job performance have likewise been treated as determinants of nurses' productivity (Rafiee et al., 2024).

Work commitment reflects the degree to which individuals identify with, feel loyal to, and take pride in their organization. It is multidimensional (affective, continuance, and normative), predicts retention and performance, and acts as a moderator in some models (Asakura et al., 2019; Essa et al., 2021; Ruiller & van der Heijden, 2016; Koob, 2025). Commitment relates positively to performance or moderates the effect of other HR factors on it in public-sector and healthcare settings, although results vary by context and type of commitment (Asakura et al., 2019; Essa et al., 2021; Wirawan, 2023; Ruiller & van der Heijden, 2016; Koob, 2025). Recent public personnel research shows how commitment is shaped by working conditions: work-to-life spillover significantly influenced organizational commitment among Korean women managers, and the actual use of flextime mitigated its negative effects (Kim & Oh, 2025), while affective commitment has also been compared across generations of U.S. federal employees (Nguyen, 2022). Employee performance, the dependent variable, is the outcome of work and behavior in completing assigned tasks, typically captured through quality, quantity, timeliness, and cooperation (Wirawan, 2023).

At the Environmental Agency of Lubuklinggau City, these issues are visible in practice. Competency remains low among some employees, as shown by limited technical training and a low average level of formal education: of the agency's 50 employees, only 6 had completed relevant technical training as of 2025. Many employees also lack basic computer skills, initiative, or a clear understanding of agency programs, so workload is experienced as heavy not because of its volume but because of limited capacity to manage it. Field observation further found employees who arrive late, show little enthusiasm, and express limited pride in the organization, which

indicates low work commitment.

Work commitment is positioned here as a moderating rather than a mediating variable. It is a boundary condition that determines the strength of the competency–performance and workload–performance relationships, not a mechanism that transmits their effects. Strong competency or well-managed workload will not automatically yield high performance without employees' willingness to dedicate themselves to their duties. This is consistent with prior work that treats commitment as a moderator, such as leadership commitment in a public-sector setting (Hood et al., 2023) and occupational commitment under varying boundary conditions (Asakura et al., 2019). Beyond the public sector, organizational commitment has also been shown to act as a stress moderator that dampened the negative effect of abusive supervision and narcissism on safety performance (Saleem et al., 2021). However, moderation is not universal: commitment did not significantly moderate the competence–performance relationship in one study (Wirawan, 2023). This inconsistency underscores the need for careful model specification and for testing moderation in different institutional settings.

Accordingly, this study examines the influence of HR competency and workload on employee performance at the Environmental Agency of Lubuklinggau City, with work commitment as a moderating variable. It tests the effects of competency, workload, and work commitment on performance, and the moderating role of work commitment in the competency–performance and workload–performance relationships.

METHODOLOGY

This study uses an associative-causal quantitative design to test the relationships and influences among the independent variables (HR competency and workload), the moderating variable (work commitment), and the dependent variable (employee performance), using both simple linear regression and Moderated Regression Analysis (MRA) as its statistical techniques, consistent with the analysis reported in the Results section. All variables were measured using a five-point Likert scale (1 = strongly disagree to 5 = strongly agree), with each variable operationalized through indicators drawn from its respective theoretical framework: HR competency through knowledge, skills, and attitudes; workload through target achievement and job conditions; work commitment through willingness, loyalty, and pride; and employee performance through goals, standards, feedback, means, competence, and opportunity, as detailed in the theoretical review above.

The population in this study comprises all 50 State Civil Apparatus (ASN) employees at the Environmental Agency of Lubuklinggau City. Because the population is smaller than 100, this study uses a saturated sampling technique (total sampling), in which the entire population is used as the sample; this technique is academically justified for small, well-defined populations where a full census is feasible and maximizes the precision of population-level estimates, though it does carry a corresponding statistical limitation for testing a complex moderation model, discussed further in the Limitations section. Data were collected through observation, documentation, and a structured questionnaire. Instrument validity was assessed using the corrected item-total correlation (loading factor/r-count), with an item considered valid if its coefficient exceeds the critical r-table value for n = 50, and reliability was assessed using Cronbach's Alpha, with a value above 0.60 considered acceptable; both tests were conducted prior to the classical assumption tests to confirm the instrument's

suitability for further analysis. This concern is consistent with methodological guidance showing that interaction (moderation) effects in regression-based designs generally require substantially larger samples than main effects to be reliably detected, since the power to detect an interaction is disproportionately reduced relative to a main effect of equivalent size (Baranger et al., 2023). Small samples also yield limited statistical power and less precise effect-size estimates (Toffalini et al., 2021). Because all study variables were measured through self-reports from the same respondents, the potential for common-method bias is acknowledged and is discussed in the Limitations section (Podsakoff et al., 2024).

The classical assumption tests used in this research are the Normality Test, which determines whether the independent and dependent variables have a normal distribution, given that a good regression model requires normally distributed data and the Linearity Test, which determines whether the dependent variable (Y) and each independent variable (X) have a linear (Siregar, 2018) relationship. Because formal normality tests have limited power in small samples (Shatz, 2023; Zygmont, 2023), the Kolmogorov–Smirnov result is interpreted with caution; methodological work recommends evaluating normality on regression residuals rather than on raw variables (Midway & White, 2025) and shows that ordinary least squares regression is reasonably robust to moderate departures from normality (Knief & Forstmeier, 2021). Data analysis, using SPSS 22, included data processing, data presentation, and hypothesis testing through the following statistical tests: simple and multiple linear regression, partial t-tests, the coefficient of determination, the simultaneous F-test, and Moderated Regression Analysis (MRA).

RESULTS

Normality Test

Normality Test would be designed to measure the degree of data normality. The Kolmogorov-Smirnov test is also capable of checking whether the data follows a normal distribution. Data is considered normal when the mark Asymp. Sig. (2-tailed) is greater than signifying value of 0.05. The results are shown in the below table:

Table 1. Normality Test Results

	Asymp . Sig. (2-tailed)	Information
Unstandardized Residual	0.200	Normal

Source : Primary Data Processing 2025

From the above table regarding the test normality of unstandardized residuals marked with the Kolmogorov-Smirnov test of 0.200 yielding a probability of 0.05, it can be concluded that the data instrument utilized within this study is indeed normally distributed.

Linearity Test

The purpose of a linearity test is to determine whether the relationship between the four variables is linear or not. Such a linearity test is performed prior to the correlation or linear regression analysis. Analyzing with SPSS 26 the output data, the results can be observed in the ANOVA table given below:

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Table 2. Linearity Test Results

			Sum of Squares	df	Mean Square	F	Sig.
Performance Employee (Y) * Competence (X1)	Between Groups	(Combined)	2589,437	17	152,320	4,549	0,000
		Linearity	2047,012	1	2047,012	61,140	0,000
		Deviation from Linearity	542,425	16	33,902	1,013	0.469
	Within Groups		1071,383	32	33,481		
	Total		3660.820	49			

Source: Primary Data Processing 2025

Table 2 shows the linearity test results for employee performance and competency. The Linearity row has a significance value of 0.000, below the 0.05 threshold, confirming a significant linear component in the relationship. The Deviation from Linearity row has a significance value of 0.469, above 0.05, indicating no significant deviation from linearity. Together, these results confirm that the relationship between competency and employee performance is linear.

Table 3. Linearity Test Results

			Sum of Squares	df	Mean Square	F	Sig,
Performance Employees (Y) * Workload (X2)	Between Groups	(Combined)	1555,820	16	97,239	1,524	0,000
		Linearity	139,880	1	139,880	2,193	0.008
		Deviation from Linearity	1415,940	15	94,396	1,480	0.570
	Within Groups		2105,000	33	63,788		
	Total		3660,820	49			

Source : Primary Data Processing 2025

Table 3 shows the linearity test results for employee performance and workload. The Linearity row has a significance value of 0.008, below 0.05, confirming a significant linear component. The Deviation from Linearity row has a significance value of 0.570, above 0.05, indicating no significant deviation from linearity. Together, these results confirm that the relationship between workload and employee performance is linear.

Hypothesis Test Results

Simple Linear Regression Test

Table 4 presents the combined simple linear regression results for each independent variable's individual relationship with employee performance (Y).

Table 4. Combined Simple Linear Regression Results

Predictor	Constant (a)	B	Equation
HR Competency (X1)	22.318	1.176	Y = 22.318 + 1.176 X1
Workload (X2)	42.869	0.361	Y = 42.869 + 0.361 X2
Work Commitment (Z)	34.124	0.530	Y = 34.124 + 0.530 Z

Source: Primary Data Processing 2025.

Each equation's constant represents the predicted performance value when the corresponding predictor is zero, and each B coefficient indicates the unit change in employee performance (Y) associated with a one-unit increase in that predictor, holding other variables constant: for every one-unit increase in HR competency, performance rises by 1.176 units; for every one-unit increase in workload, performance rises by 0.361 units; and for every one-unit increase in work commitment, performance rises by

0.530 units. These results demonstrate that HR competency, workload, and work commitment each have a positive individual relationship with employee performance, with competency showing the largest simple-regression effect among the three.

t-Test

Table 5 presents the combined partial (t-test) results for each independent variable's individual effect on employee performance (Y). The critical t-table value at df = 50 - 2 = 48, α = 0.05 (two-tailed) is 2.011.

Table 5. Combined Partial Test Results (t-Test)

Predictor	t	Sig.	Decision
HR Competency (X1)	7.803	0.000	H1 supported
Workload (X2)	6.381	0.000	H2 supported
Work Commitment (Z)	6.257	0.002	H3 supported

Source: Primary Data Processing 2025. All three t-values exceed the critical t-table value of 2.011, and all three significance values are below 0.05. This confirms that, on a partial basis, HR competency (X1), workload (X2), and work commitment (Z) each have a statistically significant effect on employee performance (Y): H1, H2, and H3 are all supported.

Moderated Regression Analysis (MRA)

Based on the results of the *Moderated Regression Analysis* (MRA) test calculations , it was obtained the following values :

Table 10. Linear Regression Results

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta
1	(Constant)	11,872	27,934	
	Competence (X1)	0.429	0.621	0.273
	Workload (X2)	0.455	0.854	0.246
	Commitment Work (Z)	0.009	0.755	0.007
	Competence (X1) * Commitment Work (Z)	0.020	0.017	0.654
	Workload (X2) * Commitment Work (Z)	0.002	0.024	0.070

Source : Primary Data Processing 2025

Table 10 displays the output of the multiple linear regression analysis. The regression equation is given by Y = 11.872 + 0.429 X 1 + 0.455 X 2 + 0.009Z + 0.020X 1 Z + 0.002X 2 Z. Based on the regression analysis, it can be interpreted that the equation gives a constant (intercept) of 11.872 units. This means that in the absence of the influence of the competency variable (X 1), the workload (X 2), the commitment (Z), the interaction of the commitment with the competency, and the interaction of the commitment with the workload, the employee performance value (Y) is 11.872 units.

The regression coefficient indicates the value of the competency variable as b1 = 0.429 units, which suggests that if the competency variable experiences an increase of one unit, the employee's performance value will increase by 0.429. The regression coefficient value of the workload variable gives b2 = 0.455 units, which suggests that if the workload variable experiences increase of one unit, the employee's performance value will increase by 0.455 as well. The regression coefficient value of the work commitment variable gives b3 = 0.009 units, which suggests that if the commitment variable experiences an increase of one unit, the employee performance will increase by 0.009. The regression coefficient value of the commitment work and competencies

interaction gives b4 = 0.020 units which indicates that with the interaction of commitment work and competencies, the performance value of employees will increase by 0.020. The regression coefficient value of the interaction of employee commitment work with the workload gives b5 = 0.002 units which shows that with the commitment work interaction. Under the workload, the employee performance metric will grow by 0.002.

Econometrically, the interaction coefficients b4 (X1*Z) and b5 (X2*Z) capture how the marginal effect of competency and workload on performance changes as work commitment changes. Because b4 = 0.020 is positive, the effective slope of competency on performance is not fixed at b1 = 0.429 but instead increases by 0.020 units for every one-unit increase in work commitment; equivalently, the marginal effect of competency on performance at a given level of commitment Z is (b1 + b4Z) = (0.429 + 0.020Z). The same logic applies to workload: because b5 = 0.002 is positive, the marginal effect of workload on performance is (b2 + b5Z) = (0.455 + 0.002Z), so higher work commitment strengthens the workload-performance relationship as well, albeit by a smaller margin than for competency. In both cases, a positive and statistically significant interaction coefficient means work commitment is not merely another predictor alongside competency and workload, but a variable that changes the strength of their effects on performance, which is the technical definition of a moderating variable in this regression framework.

Table 11. t-Test Results

Model	t	Sig.
(Constant)	17,425	0,000
Competence (X1)	5,690	0,000
Workload (X2)	5,533	0,000
Commitment Work (Z)	6,012	0.001
Competence (X1)* Commitment Work (Z)	8,189	0.001
Workload (X2)* Commitment Work (Z)	7,095	0.004

Source : Primary Data Processing 2025

The bootstrapped t-test results indicate that the interaction between competence and work commitment yields a calculated t-value of 8.189, which exceeds the critical t-table value of 2.009 (df = 48), with a significance value of 0.001 < 0.05, confirming that work commitment functions as a moderating variable in the relationship between competence and employee performance, strengthening that relationship. Similarly, the interaction between workload and work commitment yields a calculated t-value of 7.095, which exceeds the critical t-table value of 2.009, with a significance value of 0.004 < 0.05, confirming that work commitment also moderates and strengthens the relationship between workload and employee performance.

DISCUSSION

Taken together, the five hypothesis tests point to a coherent picture specific to the Environmental Agency of Lubuklinggau City: HR competency, workload, and work commitment each independently improve employee performance, and work commitment additionally strengthens, rather than simply adding to, the performance returns to competency and workload. This pattern is empirically meaningful in this setting because the agency's core tasks, waste management, pollution monitoring, and community environmental outreach, require field staff to exercise judgment and initiative beyond narrowly defined procedures; technical competency and a manageable

workload create the capacity to perform these tasks well, but it is work commitment that determines whether employees actually apply that capacity consistently, particularly under the resource constraints typical of a local government environmental agency. The following sub-sections interpret each hypothesis in light of this pattern, connecting the statistical results to the specific operational conditions observed at the agency rather than restating general theory alone.

H1: Competence Influential on Employee Performance

The partial test shows that HR competency (X1) has a positive and significant effect on employee performance (Y) at the Environmental Agency of Lubuklinggau City. The calculated t-value of 7.803 exceeds the t-table value of 2.009 (df = 48), and the significance value of 0.000 is below 0.05, so H1 is accepted. Differences in competency therefore explain meaningful differences in how well employees perform their duties.

This result matches the theoretical view that competence is the basis for carrying out tasks that fit the skills, knowledge, and attitudes the work requires (Wibowo, 2016). Competence, understood as the integration of knowledge, understanding, values, skills, attitudes, and interests, enables employees to understand their duties, make sound decisions, and complete work in line with targets. Previous studies have likewise treated competence as an antecedent of performance and linked competence-based interventions and assessments to performance improvements (Wirawan, 2023). At the agency, employees with higher competence are more proactive in waste management, air and water quality monitoring, and environmental education campaigns. They also work more efficiently and collaborate better across departments, which supports the agency's sustainability-oriented programs.

The finding is also consistent with earlier empirical work. Wibowo (2016) argues that strong competence improves work effectiveness because employees can carry out tasks to established standards, and the agency's environmental management tasks follow the same pattern. (Setiawati et al., 2024), studying public sector employees, found that higher competence contributes more to organizational performance, with knowledge, technical expertise, and professional attitude forming the foundation for efficient task completion. Sutrisno (2019) adds that strong competence improves individual performance and fosters a more productive, collaborative work environment. At the agency, highly competent employees likewise drive their teams in implementing environmental programs. Cross-national evidence from public sector organizations points in the same direction, showing that investing in employees' professional development and career satisfaction is tied to stronger and more sustainable performance, and that competency-building can be seen as a socially responsible HR strategy rather than a purely technical one (Latan et al., 2022). Evidence from other occupational settings is consistent with this pattern: competence development has been examined as a driver of work creativity, employee performance, and competitiveness (Martini et al., 2024), and competency, together with work engagement, has been found to carry the effect of nurses' proactive personality on job performance (Hu et al., 2021).

This result is especially relevant given the agency's conditions. Only 6 of 50 employees had completed relevant technical training as of 2025, and many hold only elementary or high-school qualifications. Even so, the variation in competency still has a strong effect on performance. Competency is clearly a binding constraint, so the gaps in basic computer skills, initiative, and understanding of program concepts probably hold back performance more than the volume of work does. Developing competency should

therefore be a strategic priority in the agency's HR development, through technical training, digital skills, and further education. Evidence from public organisations also suggests that training works best when its preconditions are in place: among public leaders, self-efficacy, perceived development needs, and organizational support were crucial for the motivation to develop, which in turn explained willingness to take part in training (Backhaus, 2024), and defining a set of competences for each job has been recommended as part of workforce development planning (Ježková Petrů & Zychová, 2023).

Competency alone does not guarantee performance. Past research shows that commitment can strengthen or weaken the link between individual capability and performance, though the evidence is mixed (Wirawan, 2023; Hood et al., 2023). The significant direct effect found here therefore leads naturally into testing whether work commitment moderates the competency–performance relationship.

H2: Workload Influential on Employee Performance

The partial test shows that workload (X2) has a significant effect on employee performance (Y) at the Environmental Agency of Lubuklinggau City. The calculated t-value of 6.381 exceeds the t-table value of 2.009 (df = 48), and the significance value of 0.000 is below 0.05, so H2 is accepted. Workload here covers quantitative aspects, such as the number of tasks to be completed within a given time, and qualitative aspects, such as task difficulty and level of responsibility. Excessive workload can cause physical and mental fatigue, lower motivation, and reduce work quality and productivity. A workload matched to employee capacity can instead strengthen work enthusiasm and support organizational targets.

This result is consistent with the broader literature. Gibson & Birkinshaw, (2020), argue that work overload creates negative psychological pressure that undermines individual performance. S. Robbins, (2020) explains that disproportionate workload produces stress, role conflict, and burnout, which disrupt mental and emotional well-being and reduce work effectiveness and satisfaction. Employees given work beyond their capacity, such as excessive overtime or complex tasks without adequate support, tend to perform worse in both speed and accuracy.

Empirical studies also identify workload as a significant predictor of performance, although boundary conditions shape the strength of the relationship (Amir et al., 2023; Irfan et al., 2023; Saputra et al., 2023). Its relevance as a driver of performance and well-being has been shown in healthcare and manufacturing settings (Saputra et al., 2023; Vosoughi et al., 2024). Evidence from public sector settings further shows that role overload is a key mechanism through which excessive workload undermines employee outcomes, while adequate resources and support can buffer this effect (Zhang, 2023). This is consistent with the JD-R framework, in which job demands and resources influence performance through employee well-being (Bakker et al., 2023), and studies of public employees applying the JD-R model likewise examine how work stress shapes burnout (Zhang & Liu, 2023). Quantitative evidence also shows that a heavier workload is associated with lower task and contextual performance among teachers (Gan, 2025), that mental workload has been linked to job performance among surgeons with occupational fatigue as a mediator (Esmaeili et al., 2023), and that perceived workload and individual job performance are treated as productivity determinants for nurses (Rafiee et al., 2024).

The finding fits the conditions at the agency. Many employees lack basic

computer skills, initiative, or a clear understanding of program concepts, so workload is experienced as heavy not because of its volume but because of limited capacity to manage it. Workload therefore affects performance largely through the fit between task demands and employee capacity.

Workload plays an important role in shaping employee performance, and poorly managed workload reduces productivity and can harm employees' physical and mental health. The agency's management should adopt policies that balance work demands with human resource capacity, including regular workload evaluation and equitable task distribution. These steps should foster a healthier, more productive, and more sustainable work environment. Prior studies suggest that motivational or commitment-related variables can alter the workload–performance relationship (Amir et al., 2023; Irfan et al., 2023), which leads naturally to testing whether work commitment moderates it.

H3: Commitment Work Influential on Employee Performance

The partial test shows that work commitment (Z) has a significant effect on employee performance (Y) at the Environmental Agency of Lubuklinggau City. The calculated t-value of 6.257 exceeds the t-table value of 2.009 (df = 48), and the significance value of 0.002 is below 0.05, so H3 is accepted. Work commitment here reflects the loyalty, sense of responsibility, and emotional attachment employees feel toward the organization, and their willingness to contribute fully to the agency's objectives. This matches the view that commitment is the extent to which individuals identify with the organization and feel bound to its goals (Sopiah, 2017). It is measured through willingness, loyalty, and pride.

Employees with high commitment generally show a consistent work ethic, maintain discipline, and are willing to go beyond their formal duties. These qualities shape positive work behavior, which in turn improves performance. Employees who feel a strong affective bond and moral responsibility toward the agency tend to be more proactive, innovative, and disciplined. At the agency, this appears in employees' active participation in environmental programs, their sense of responsibility for the city's cleanliness, and their involvement in community outreach. These employees also comply with organizational regulations and are enthusiastic about capacity-development activities such as training and fieldwork.

The finding is consistent with the wider literature. Commitment is a multidimensional construct (affective, continuance, and normative) that predicts retention and performance (Asakura et al., 2019; Essa et al., 2021; Ruiller & van der Heijden, 2016; Koob, 2025). Several studies in public-sector and healthcare settings find that commitment relates positively to performance-related outcomes (Asakura et al., 2019; Essa et al., 2021; Wirawan, 2023; Ruiller & van der Heijden, 2016; Koob, 2025). The agency's pattern of strong affective attachment and moral responsibility fits the affective dimension of commitment most closely. Previous studies note that the strength of the effect can vary with the type of commitment examined (Asakura et al., 2019; Essa et al., 2021; Koob, 2025). Research on civil servants adds that career commitment can carry the link between change-oriented citizenship behavior and lower turnover intention, with servant leadership moderating part of this process (Li, 2021).

The result also helps explain the agency's conditions. Field observation found employees who arrive late, show little enthusiasm, and express limited pride in the organization, and these are signs of weak commitment. The significant effect here

suggests that such weakness is a real constraint on performance, not just a matter of discipline.

These results reinforce work commitment as an important factor in optimal employee performance. To raise performance, the agency's management should foster commitment through organizational fairness, recognition of employee contributions, a supportive work environment, and clear career development paths. Strong commitment helps build a cohesive team, improves the efficiency of program implementation, and supports the sustainable achievement of the organization's vision. Because commitment is a significant direct predictor of performance, it is also plausible that it changes how competency and workload translate into performance, which the moderation tests (H4 and H5) examine. Previous research on this moderating role has been mixed (Hood et al., 2023; Wirawan, 2023)

H4: Competence Moderated by Commitment Work Influential on Employee Performance

The moderation test shows that work commitment significantly strengthens the relationship between competency and employee performance at the Environmental Agency of Lubuklinggau City. The calculated t-value of 8.189 exceeds the t-table value of 2.009, and the significance value of 0.001 is below 0.05, so H4 is accepted. The effect of competency on performance becomes stronger as employees' work commitment increases. Competence reflects employees' abilities, knowledge, skills, and attitudes, but it is not enough without the internal drive to apply it fully toward organizational goals. This is the role work commitment plays as a moderating variable.

Employees with high competence but low commitment tend not to reach maximum performance because they lack responsibility, loyalty, and emotional attachment to the organization. Employees who are both competent and highly committed are more likely to apply their full potential with discipline, efficiency, and attention to results. At the agency, technical competence such as understanding environmental issues, waste-management skills, and the ability to communicate with the community is especially important. How well it is applied depends heavily on each employee's commitment.

This result is consistent with theory that work commitment, particularly affective commitment, increases employees' intrinsic motivation to use their competence to the fullest. It acts as a reinforcing force that strengthens the link between competence and work outcomes. Recent evidence also suggests that affective organizational commitment strengthens, rather than merely supplements, the translation of individual capability into performance, while emotional exhaustion weakens this link, which marks commitment as a genuine boundary condition on performance outcomes (Van Waeyenberg et al., 2022). There is also empirical precedent for commitment as a moderator: leadership commitment has been shown to modify the effect of HR-related determinants on performance in a public-sector setting (Hood et al., 2023). Research on occupational commitment likewise shows that boundary conditions can alter the strength of commitment-related relationships (Asakura et al., 2019). Commitment has been conceptualized as a predictor of performance and as a moderator in several models (Essa et al., 2021; Ruiller & van der Heijden, 2016; Koob, 2025).

The finding differs from Wirawan (2023), who found that commitment did not significantly moderate the competence–performance relationship. The contrast

suggests that moderation effects depend on context and measurement. The agency's weak commitment signals, such as late arrivals, low enthusiasm, and limited pride, may leave enough variation in commitment for it to condition how far competence turns into performance. In a setting where commitment is more uniform, the moderating effect may be weaker or absent. Testing such boundary conditions is common in human resource research; for example, perceived organizational support was found to moderate the relationship between employer brand attractiveness and organizational commitment among hotel employees (Onur et al., 2024).

In conclusion, work commitment strengthens the relationship between competence and employee performance. Employees with strong competence contribute significantly to organizational performance only when they also have strong commitment. Human resource development at the agency should therefore address both aspects together, combining technical training and further education with efforts to build commitment, to achieve superior and sustainable performance.

H5: Workload Moderated by Commitment Work Influential on Employee Performance

The moderation test shows that work commitment significantly strengthens the relationship between workload and employee performance at the Environmental Agency of Lubuklinggau City. The calculated t-value of 7.095 exceeds the t-table value of 2.009, and the significance value of 0.004 is below 0.05, so H5 is accepted. Workload significantly affects performance, and employees' level of work commitment shapes this relationship. When workload is high but not matched by strong commitment, it tends to generate work-related stress, reduced motivation, and negative performance outcomes. Employees with strong commitment tend to see a heavy workload as a positive challenge and manage it adaptively, so they can sustain optimal performance.

In this context, work commitment acts as a moderating variable. Highly committed employees typically show loyalty, enthusiasm, and a sense of responsibility toward both their work and the organization's objectives. They are better able to manage their time, cope with pressure, and prioritize tasks by urgency. A heavy workload therefore does not immediately reduce their performance and can even become a driver of stronger performance. This is consistent with (S. P. Robbins & Judge, 2012), who argue that organizational commitment is an affective factor that strengthens employees' positive response to work-related stressors, including workload.

The finding also matches earlier empirical work. Studies in public-sector contexts have shown that the effect of workload on performance can be moderated by motivational or commitment-related variables (Amir et al., 2023; Irfan et al., 2023). Evidence from public sector settings further indicates that role overload is a key mechanism through which excessive workload undermines employee outcomes, while adequate resources and support can buffer this effect (Zhang, 2023). Work commitment can be read as a similar internal resource that helps employees absorb work demands. More broadly, commitment has been conceptualized as a predictor of performance and as a moderator in several models (Asakura et al., 2019; Essa et al., 2021; Ruiller & van der Heijden, 2016; Koob, 2025). There is also precedent for commitment altering the effect of other HR-related determinants on performance in a public-sector setting (Hood et al., 2023). Comparable moderation patterns have been reported elsewhere: organizational commitment dampened the negative effect of abusive supervision and narcissism on safety performance (Saleem et al., 2021), and work values conditioned

the relationship between workload and retention intention among preschool teachers, with intrinsic values amplifying and extrinsic values mitigating the negative effect of workload (Cheng et al., 2025). The significance of moderation varies across contexts and measurement (Wirawan, 2023), so the present result adds evidence from a local environmental agency, where commitment appears to condition how workload is converted into performance.

The agency needs employees who can handle complex and dynamic work such as waste management, pollution monitoring, and environmental conservation. Here, commitment is not merely a moral value but a strategically decisive element for carrying out tasks effectively under heavy workloads. This matters because weak commitment signals, such as late arrivals, low enthusiasm, and limited pride, were observed in the field, and these may leave workload pressure unbuffered for some employees.

These results confirm that the agency should not only distribute workload proportionally but also build systems that strengthen work commitment. Examples include a positive organizational culture, two-way communication, and career development aimed at improving employee loyalty.

CONCLUSION

This study finds that HR competency, workload, and work commitment each significantly and positively affect employee performance at the Environmental Agency of Lubuklinggau City, and that work commitment significantly moderates both the competency-performance and workload-performance relationships, strengthening rather than merely supplementing their individual effects. Substantively, this means competency development and workload management are necessary but, on their own, incomplete levers for improving performance: their full benefit is realized only when paired with a genuinely committed workforce, since it is commitment that determines whether technical capability and a well-managed workload translate consistently into the kind of proactive, quality-conscious fieldwork the agency's environmental mandate requires.

For the Head of the Environmental Agency, these findings suggest that HR strategy should treat competency development, workload management, and commitment-building as an integrated package rather than separate initiatives. Concretely, this means pairing periodic technical training with a workload distribution based on employee expertise and capacity, and investing deliberately in commitment through recognition, open communication, and a supportive work culture, since the interaction results indicate that gains from training and workload redesign are amplified when employees are also committed to the organization.

For HR management research, this study extends the literature on moderating variables in public sector performance models by demonstrating, in a local environmental government agency, that work commitment functions as a boundary condition rather than a simple additive predictor. Future studies could test this moderation structure using Structural Equation Modeling with Partial Least Squares (SEM-PLS), which can accommodate more complex, multi-indicator moderation models than MRA and would allow researchers to examine the measurement structure of each construct alongside the structural relationships tested here.

Limitations

This study has several limitations. First, the saturated sample of 50 employees, while appropriate for surveying this agency's full population, is small for regression-based hypothesis testing and yields limited statistical power for detecting moderation effects (Toffalini et al., 2021); the interaction results reported here, though statistically significant, should be interpreted with this power constraint in mind, and findings cannot be generalized beyond this agency without further testing on larger samples. Second, the quantitative approach used does not explore qualitative aspects such as intrinsic motivation, job satisfaction, or interpersonal dynamics that may also shape performance. Third, this study uses a cross-sectional design, capturing conditions at a single point in time rather than how these relationships develop over time. This limitation is consistent with broader methodological guidance cautioning that cross-sectional survey designs constrain causal inference and cannot rule out reverse causality as an alternative explanation for the observed relationships. Fourth, all variables were measured through self-reports from the same respondents, which raises the possibility of common-method bias (Podsakoff et al., 2024).

Recommendations

For the Environmental Agency: For the agency: conduct periodic competency training and allocate workload according to employees' expertise and capacity to improve work efficiency and effectiveness.

For strengthening work commitment: organizations should build a positive work culture through recognition, open communication, and a conducive work environment that fosters loyalty and engagement.

For future researchers: future studies should replicate this model using SEM-PLS to accommodate a more complex moderation structure, extend the research to other agencies with a larger sample to improve generalizability, and consider a longitudinal design to observe how these relationships develop over time.

Statement on the Use of Artificial Intelligence.

The author acknowledges the use of Deepl and Grammarly AI as a language editing aid during the preparation of this manuscript, used to support grammar checking and sentence clarity. All ideas, analyses, interpretations, and conclusions presented in this study remain entirely the author's responsibility.

Conflicts of interest

The authors declare no conflict of interest.

Author contributions

Conceptualization, Author1; methodology, Author1 and Author2; data collection, Author1; data validation, Author1 and Author2; formal analysis, Author1 and Author2; writing, original draft preparation, Author1 and Author2; writing, review and editing, Author1 and Author2. All authors have read and approved the final version of the manuscript.

ACKNOWLEDGEMENT

The author would like to thank all employees Service Lubuk City Environment Linggau which has willing respondents in this study. Thank are also extended to Bina Insan University and the Indonesian Polytechnic Sriwijaya University for the support

and facilities provided during the research process. We also extend our appreciation to all parties who contributed, directly or indirectly, to the preparation of this article.

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