

The Effect of Leadership, Motivation, and Work Environment on Lecturer Performance

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ABSTRACT

Purpose: This study aims to analyze the effect of leadership, motivation, and work environment on lecturer performance at Politeknik Negeri Media Kreatif Medan. Lecturer performance is an important factor in improving the quality of higher education and institutional competitiveness.

Research Method: This study employed a quantitative approach with an associative research design. The population consisted of 32 lecturers using a saturated sampling technique. Data were collected through questionnaires using a Likert scale. Data analysis was conducted using SPSS, including validity and reliability tests, multiple linear regression, t-tests, F-tests, and the coefficient of determination.

Results and Discussion: The results showed that leadership has a significant effect on lecturer performance. Motivation and work environment have positive but insignificant relationships in the multiple linear regression model. Simultaneously, these three variables significantly affect lecturer performance.

Implications: The findings indicate the importance of improving leadership quality and work motivation, and of creating a conducive work environment to enhance lecturer performance.

Originality: This study provides an empirical contribution by integrating leadership, motivation, and work environment variables into a single research model within vocational education institutions.

Keywords: leadership; motivation; work environment; lecturer performance; vocational education.

1. Introduction

Higher education institutions play a strategic role in producing qualified, innovative, and competitive human resources capable of responding to the challenges posed by globalization, technological advancement, and a rapidly changing labor market. As centers of knowledge creation and dissemination, universities and polytechnic institutions are expected to continuously improve the quality of education, research, and community engagement. In Indonesia, these responsibilities are formally embodied in the Tri Dharma of Higher Education, which consists of education, research, and community service. The successful implementation of these three functions largely depends on the quality and performance of lecturers, who serve as the primary actors in the academic process. Consequently, lecturer performance has become one of the most important determinants of institutional effectiveness and the quality of higher education (Wibowo, 2022; Sedarmayanti, 2023).



The strategic importance of lecturer performance has become increasingly evident in recent years due to the implementation of the Merdeka Belajar Kampus Merdeka (MBKM) policy, the acceleration of digital transformation in higher education, and the increasing demands for institutional accreditation and international competitiveness. These developments require lecturers not only to excel in teaching activities but also to actively participate in research, scientific publication, innovation development, and community service programs. In addition, lecturers are expected to continuously improve their competencies, adapt to technological changes, and contribute to institutional performance indicators. Therefore, understanding the factors that influence lecturer performance has become a critical issue for higher education management and policymakers (Kasmir, 2023).

Despite its importance, lecturer performance remains a challenge in many higher education institutions, particularly in vocational education settings, where lecturers are expected to balance academic responsibilities with practical, industry-oriented teaching activities. Based on preliminary observations conducted at Politeknik Negeri Media Kreatif Medan, several indicators suggest that lecturer performance has not yet reached the expected level. These include delays in completing academic and administrative tasks, relatively low participation in research and scientific publication among some lecturers, and unequal involvement in community service programs. Such conditions can hinder the achievement of institutional goals and indicate organizational factors that influence lecturers' effectiveness in carrying out their professional responsibilities.

One of the organizational factors frequently associated with employee and lecturer performance is leadership. Leadership plays a critical role in directing organizational members, coordinating activities, communicating institutional goals, and creating a supportive work climate. According to Transformational Leadership Theory, effective leaders inspire and motivate subordinates by providing a clear vision, intellectual stimulation, individualized consideration, and motivational encouragement. Through these mechanisms, leaders can enhance employee commitment, job satisfaction, and performance outcomes. In the context of higher education, academic leaders are expected to facilitate communication, support professional development, and foster an environment that enables lecturers to perform at their best. However, initial observations at Politeknik Negeri Media Kreatif Medan reveal several leadership-related challenges, including delays in disseminating information on academic policies, less-than-optimal coordination among work units, and differences in understanding of academic responsibilities. These conditions may reduce organizational effectiveness and potentially affect lecturer performance. Leadership indicators such as communication effectiveness, decision-making capability, supervision, and accountability are therefore important to examine (Hasibuan, 2022). Previous research by Syaputra (2026) also demonstrates that organizational support and leadership-related factors contribute significantly to improvements in employee performance.

Another important factor influencing lecturer performance is work motivation. Motivation reflects the internal and external forces that encourage individuals to exert effort toward achieving organizational and personal goals. Self-Determination Theory explains that individuals perform better when their needs for autonomy, competence, and relatedness are fulfilled. Employees who perceive opportunities for personal growth, recognition, and career advancement tend to exhibit higher levels of engagement and performance. Within higher education institutions, motivated lecturers are generally more willing to participate in research activities, improve teaching quality, pursue academic achievements, and contribute to institutional development. Nevertheless, field observations indicate that some lecturers show low enthusiasm for competency development programs, limited participation in scientific activities, and insufficient initiative to improve the quality of learning. These conditions



suggest that motivational factors such as rewards, opportunities for self-actualization, recognition, and career development may not be fully optimized (Afandi, 2022). Empirical evidence from Telaumbanua, Syaputra, and Gobal (2025) further confirms that work motivation is positively associated with job satisfaction and productivity.

In addition to leadership and motivation, the work environment represents another critical determinant of lecturer performance. The Job Demands–Resources (JD-R) Theory suggests that employees perform more effectively when organizations provide sufficient resources to support job demands. Work resources such as adequate facilities, comfortable workspaces, supportive colleagues, and effective administrative systems can enhance employee engagement and productivity. Conversely, inadequate resources may increase work stress and reduce performance. Preliminary observations at Politeknik Negeri Media Kreatif Medan indicate that several work environment issues persist, including limited learning support facilities, workspaces that are not fully conducive to academic activities, and administrative workloads that may distract lecturers from their core academic responsibilities. These challenges potentially reduce lecturer effectiveness in fulfilling educational, research, and community service obligations. A conducive work environment is therefore essential to improving comfort, efficiency, and productivity (Sedarmayanti, 2023). Supporting this argument, Syaputra *et al.*, (2025) found that a safe and supportive work environment positively affects employee productivity and organizational performance.

Although previous studies have examined the influence of leadership, motivation, and work environment on employee performance, most existing research has focused on business organizations, government institutions, or general educational settings. Research that simultaneously investigates these three factors within vocational higher education institutions remains relatively limited. Vocational education has unique characteristics because lecturers must integrate theoretical instruction with practical, industry-oriented competencies. Consequently, the determinants of lecturer performance in vocational institutions may differ from those observed in other organizational contexts. Furthermore, previous empirical findings have produced inconsistent results. Several studies identify motivation as the most influential factor affecting employee performance, while others emphasize the dominant role of leadership or work environment. Some studies even report insignificant relationships between these variables and performance outcomes. These inconsistencies indicate that the relationships among leadership, motivation, work environment, and performance may be context-dependent and influenced by organizational characteristics. Therefore, further investigation is needed to provide a more comprehensive understanding of these relationships within vocational higher education institutions.

Based on the theoretical and empirical gaps identified above, this study aims to examine the effects of leadership, work motivation, and work environment on lecturer performance at Politeknik Negeri Media Kreatif Medan. This study contributes to the literature by integrating Transformational Leadership Theory, Self-Determination Theory, and the Job Demands–Resources perspective into a unified framework for explaining lecturer performance. In addition, the study extends the existing body of knowledge by providing empirical evidence from a vocational higher education institution. This context remains underexplored in human resource management and higher education literature. The findings are expected to provide both theoretical contributions and practical implications for improving lecturer performance and institutional effectiveness in vocational higher education settings.

The remainder of this paper is organized as follows. Section 2 provides a literature review and hypothesis development. Section 3 presents the research method and design. Section 4 provides the results and discussion. Section 5 is Concluding Remarks and Recommendations.

2. Literature Review and Hypothesis Development

2.1. Literature Review

2.1.1 Leadership

Leadership is the ability of a leader to influence, direct, and coordinate subordinates in achieving organizational goals effectively and efficiently (Hasibuan, 2022; Yukl, 2023). In educational organizations, leadership plays an important role in fostering a productive, innovative, and adaptive work culture in response to change (Mangkunegara, 2023; Robbins & Judge, 2023). According to Wibowo (2022), effective leadership does not only focus on decision-making but also on communication skills, motivation, supervision, and responsibility in creating a conducive work climate. This is in line with Fahmi (2022), who stated that leaders who foster open communication and effective coordination will improve organizational members' performance.

In the context of higher education, academic leadership becomes an essential element in supporting lecturer productivity. Lestari and Harahap (2024) found that effective academic leadership increases lecturers' involvement in research and community service. Nasution *et al.*, (2024) also showed that leadership has a significant effect on improving teaching quality and lecturer productivity. Siregar *et al.*, (2024) found that transformational leadership positively impacts lecturer performance by increasing organizational commitment. Simatupang *et al.*, (2025) also demonstrated that leadership effectiveness is closely related to lecturer job satisfaction. Syaputra (2026) emphasized that organizational support built through leadership and job training can improve employee performance. This strengthens the argument that leadership is a major factor in building both individual and organizational performance. According to Hasibuan (2022), the indicators of leadership include:

- Communication
- Decision-making
- Responsibility
- Supervision

Communication is an essential element because it determines the effectiveness of information delivery within the organization. Decision-making reflects the leader's ability to set the organization's direction.

2.1.2 Motivation

Work motivation refers to the internal and external drives that encourage individuals to perform work to achieve specific goals (Afandi, 2022; Kasmir, 2023). Motivation plays an important role in increasing work enthusiasm, loyalty, and employee productivity. Maslow's hierarchy of needs theory explains that individuals work to fulfill physiological, safety, social, esteem, and self-actualization needs (Uno & Lamatenggo, 2022). In the educational sector, self-actualization often becomes the dominant factor encouraging lecturers to actively engage in teaching, research, and scientific publications.

According to Yusuf and Sari (2024), lecturer motivation affects the level of involvement in academic activities. Putra and Lubis (2024) showed that work motivation is positively related to teaching quality and research productivity. Pratiwi (2025) found that lecturers with high motivation tend to have stronger work commitment. Hutapea *et al.*, (2025) also emphasized that motivation is a key determinant of successful MBKM implementation in higher education institutions. Telaumbanua, Syaputra, and

Gobal (2025) showed that motivation significantly affects job satisfaction and employee productivity. This indicates that motivation not only affects satisfaction but also directly influences performance.

Gultom *et al.*, (2025) and Rahmawati *et al.*, (2026) also demonstrated that work motivation significantly improves educators' productivity. According to Uno and Lamatenggo (2022), the indicators of motivation include:

- Physiological needs
- Safety needs
- Recognition
- Self-actualization

2.1.3 Work Environment

The work environment refers to everything surrounding employees that can directly or indirectly influence the execution of their work (Sedarmayanti, 2023). The work environment includes physical factors such as work facilities, lighting, temperature, cleanliness, and security, as well as non-physical factors such as interpersonal relationships, communication, and organizational culture. According to Kurniawan and Sari (2024), a good work environment can improve comfort and concentration at work. Wijaya and Pranata (2024) also stated that a supportive work environment will enhance employee work effectiveness.

In the context of higher education, a conducive work environment is essential for supporting lecturers' productivity. Harahap and Ginting (2025) found that the work environment significantly affects lecturers' performance, particularly in teaching and research. Hutagalung *et al.*, (2026) showed that adequate work facilities can improve the quality of educators' performance. Syaputra *et al.*, (2025) also demonstrated that occupational safety and health protection and a safe work environment influence employee productivity. Telaumbanua *et al.*, (2025) found that the work environment has a significant effect on job satisfaction, which subsequently impacts performance improvement. According to Sedarmayanti (2023), the indicators of the work environment include:

- Work facilities
- Workplace comfort
- Work safety
- Work relationships

2.1.4 Lecturer Performance

Lecturer performance refers to the work outcomes achieved by lecturers in carrying out academic duties, including education, research, and community service (Mangkunegara, 2023). Wibowo (2022) stated that performance is the result of work influenced by ability, motivation, and organizational support. According to Lubis (2023), lecturer performance can be measured through teaching quality, the number of scientific publications, involvement in community service, and contributions to institutional development. Nasution *et al.*, (2025) showed that a combination of internal and external factors influences lecturer productivity. Sari and Nasution (2025) also found that organizational commitment is closely related to improved lecturer performance. Setiawan *et al.*, (2024) emphasized that human resource development in higher education institutions is a key factor in improving lecturer quality.

Therefore, leadership, motivation, and work environment are relevant variables in explaining variations in lecturer performance. According to Wibowo (2022), the indicators of lecturer performance include:

- Teaching quality
- Research productivity
- Community service
- Timeliness in carrying out duties

These indicators are used to measure lecturers' success in fulfilling their academic responsibilities.

2.2 Hypothesis Development

2.2.1. Leadership and Lecturer Performance

Leadership is one of the most important factors influencing the achievement of organizational goals. Effective leaders can direct, motivate, and coordinate organizational members to perform their duties optimally. According to leadership theory, leaders not only function as decision-makers but also as facilitators who create a supportive work climate that encourages employees to improve their performance (Yukl, 2023). In higher education institutions, academic leaders play a strategic role in encouraging lecturers to carry out the Tri Dharma of Higher Education effectively.

Leaders with strong communication skills can clearly convey institutional goals, provide constructive feedback, and foster collaboration among lecturers. Furthermore, appropriate decision-making and supervision can increase lecturers' confidence in carrying out academic responsibilities. When lecturers perceive that institutional leaders provide direction, support, and recognition, they tend to demonstrate greater commitment and productivity in teaching, research, and community service.

Empirical studies have consistently shown a positive relationship between leadership and employee performance. Lestari and Harahap (2024) found that effective academic leadership enhances lecturer involvement in research and community service activities. Similarly, Nasution *et al.*, (2024) reported that leadership significantly improves teaching quality and lecturer productivity. Siregar *et al.*, (2024) also demonstrated that transformational leadership positively affects lecturer performance through stronger organizational commitment. These findings indicate that effective leadership can catalyze improvements in lecturer performance.

H1: Leadership has a positive and significant effect on lecturer performance.

2.2.2 Motivation and Lecturer Performance

Motivation is an internal driving force that encourages individuals to exert effort in achieving organizational and personal goals. According to Maslow's hierarchy of needs theory, individuals are motivated to work to fulfill needs ranging from basic physiological needs to self-actualization (Uno & Lamatenggo, 2022). In higher education, lecturers often pursue self-actualization through teaching excellence, scientific publications, research achievements, and community engagement.

Highly motivated lecturers tend to demonstrate greater enthusiasm, persistence, and commitment in carrying out their academic duties. Motivation encourages lecturers to continuously improve their competencies, develop innovative teaching methods, and actively participate in research and publication activities. As a result, motivated lecturers are more likely to achieve superior



performance outcomes. Previous studies provide empirical support for the relationship between motivation and performance. Yusuf and Sari (2024) found that lecturer motivation positively affects engagement in academic activities. Putra and Lubis (2024) reported that work motivation contributes significantly to teaching quality and research productivity. Furthermore, Pratiwi (2025) demonstrated that highly motivated lecturers exhibit stronger organizational commitment, which in turn enhances performance. Telaumbanua *et al.*, (2025) also found that motivation directly influences employee productivity and job satisfaction.

H2: Motivation has a positive and significant effect on lecturer performance.

2.2.3 Work Environment and Lecturer Performance

The work environment encompasses the physical and non-physical conditions surrounding employees while they perform their duties. A conducive work environment can increase comfort, reduce work stress, and facilitate employees in performing their responsibilities effectively (Sedarmayanti, 2023). In higher education institutions, adequate facilities, safe working conditions, and positive interpersonal relationships are essential for supporting lecturer productivity. A supportive work environment enables lecturers to focus on teaching, research, and community service activities without unnecessary distractions. Modern educational facilities, comfortable workspaces, and collaborative relationships among colleagues can enhance work efficiency and job satisfaction. Conversely, an unfavorable work environment may hinder productivity and reduce the quality of academic performance. Empirical findings have consistently highlighted the importance of the work environment in improving employee performance. Kurniawan and Sari (2024) found that a supportive work environment enhances employee comfort and concentration. Harahap and Ginting (2025) demonstrated that the work environment significantly influences lecturer performance, particularly in teaching and research activities. Additionally, Hutagalung *et al.*, (2026) showed that adequate facilities improve educator performance, while Syaputra *et al.*, (2025) found that workplace safety positively affects employee productivity.

H3: Work environment has a positive and significant effect on lecturer performance

3. Research Method

This study employed a quantitative, associative research design to examine the influence of leadership, motivation, and work environment on lecturers' performance at Politeknik Negeri Media Kreatif Medan. The quantitative method was selected because it enables the measurement of relationships among variables objectively and facilitates statistical testing of the proposed hypotheses. The associative design was considered appropriate as the study sought to identify and analyze the causal relationships between the independent variables (leadership, motivation, and work environment) and the dependent variable (lecturer performance).

The population of this study consisted of all lecturers employed at Politeknik Negeri Media Kreatif Medan, totaling 32 individuals. Given the relatively small population size, a saturated sampling technique (census method) was used, in which all members of the population were included as research respondents. This approach ensured comprehensive representation of the target population and minimized sampling bias. Primary data were collected through a structured questionnaire distributed directly to the respondents. The questionnaire items were developed based on established theoretical indicators of leadership, motivation, work environment, and lecturer performance. Responses were

measured using a five-point Likert scale ranging from strongly disagree (1) to agree (5) strongly. Before conducting the main analysis, the research instrument was evaluated through validity and reliability testing to ensure the accuracy and consistency of the measurement items. The validity test was conducted using item-total correlation analysis, while reliability was assessed using Cronbach’s Alpha coefficient. Only items that met the required validity and reliability criteria were retained for further analysis. These procedures were undertaken to ensure that the collected data accurately reflected the constructs under investigation and yielded reliable results for hypothesis testing.

The data were analyzed using the Statistical Package for the Social Sciences (SPSS). Descriptive statistics were first employed to describe the characteristics of respondents and research variables. Subsequently, multiple linear regression analysis was used to determine the effect of leadership, motivation, and work environment on lecturer performance. Partial effects were examined using the t-test, while the simultaneous effect of the independent variables was assessed through the F-test. Furthermore, the coefficient of determination (R^2) was utilized to evaluate the proportion of variance in lecturer performance explained by the independent variables.

4. Results and Discussion

4.1 Analysis Results

4.1.1 Respondent Characteristics

Respondent characteristics reflect the diverse backgrounds of the respondents. These characteristics are used to determine the respondents' backgrounds. In this study, the respondents' backgrounds were characterized by age, gender, and education. Based on the respondent characteristics, it can be concluded that the majority of lecturers at Politeknik Negeri Media Kreatif Medan were male (18 respondents, 56.3%) and in the productive age range of 36–45 years (13 respondents, 40.6%). Most of them held a Master’s degree (S2), totaling 24 respondents (75.0%). These conditions indicate that the respondents in this study are educators who are relatively mature in age, have sufficient academic experience, and hold adequate educational qualifications. With these characteristics, the respondents are considered sufficiently representative to provide an overview of the influence of leadership, motivation, and work environment on lecturer performance at Politeknik Negeri Media Kreatif Medan.

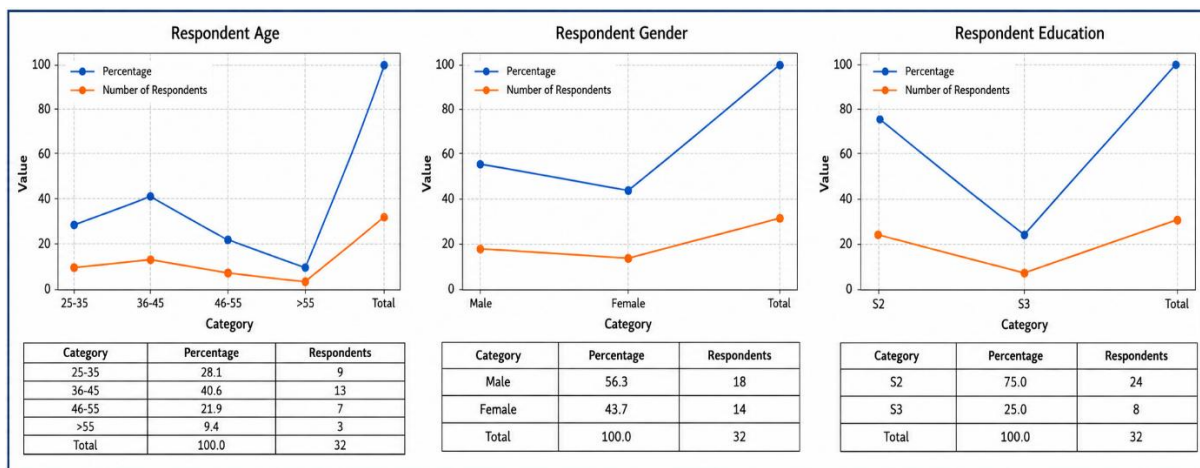


Figure 1. Respondent Characteristics

4.1.2. Validity Test

Validity testing is conducted to determine the extent to which the research instrument measures the variables under study. The test is conducted by comparing the calculated r value with the corresponding r value in the table at the 5% significance level.

Table 1. Validity Test Results

Statement	Leadership		Motivation		Work Environment		Lecturer Performance	
	r _{count}	Results	r _{count}	Results	r _{count}	Results	r _{count}	Results
1	.419	Valid	.379	Valid	.501	Valid	.429	Valid
2	.490	Valid	.424	Valid	.367	Valid	.403	Valid
3	.386	Valid	.367	Valid	.555	Valid	.370	Valid
4	.477	Valid	.372	Valid	.446	Valid	.615	Valid
5	.595	Valid	.379	Valid	.458	Valid	.633	Valid
6	.478	Valid	.558	Valid	.593	Valid	.706	Valid
7	.401	Valid	.432	Valid	.421	Valid	.401	Valid
8	.427	Valid	.364	Valid	.399	Valid	.465	Valid
9	.475	Valid	.393	Valid	.387	Valid	.423	Valid
10	.414	Valid	.380	Valid	.406	Valid	.420	Valid

Source: SPSS data (processed), 2024

Based on the results of the validity test presented in Table 1, all statement items for the variables of Leadership, Motivation, Work Environment, and Lecturer Performance have r-count values greater than the r-table value (0.361). In the leadership variable, the r-count values ranged from 0.386 to 0.595; in the motivation variable, they ranged from 0.364 to 0.558; in the work environment variable, they ranged from 0.367 to 0.593; and in the lecturer performance variable, they ranged from 0.370 to 0.706. Therefore, all statement items are declared valid and feasible to be used as research instruments, as they have fulfilled the validity requirement of r-count > r-table (0.361). This indicates that each statement item can accurately and consistently measure the variables under study.

4.1.3 Reliability Test

Reliability testing is conducted to determine the extent to which a measuring instrument is trustworthy. Reliability testing demonstrates consistent measurement results when measurements are taken twice or more on the same symptom and using the same measuring instrument. The authors used SPSS version 26.0 to assess the questionnaire's reliability in this study. Based on the results of the reliability test presented in Table 2, all research variables have reliability coefficients (Cronbach's Alpha) above the minimum threshold of 0.60. The Leadership variable obtained a value of 0.743, the Motivation variable 0.756, the Work Environment variable 0.832, and the Performance variable 0.795. This indicates that all variables are considered reliable and acceptable as research instruments. Therefore, the questionnaire used in this study demonstrates good consistency and is suitable for data collection, as it provides stable and trustworthy measurement results.



Table 2. Reliability Test Results

Variables	r count	Results	Reliability level
Leadership	0.743	Reliable	Accepted
Motivation	0.756	Reliable	Accepted
Work Environment	0.832	Reliable	Accepted
Performance	0.795	Reliable	Accepted

Source: SPSS data (processed), 2024

4.1.4 Normality Test

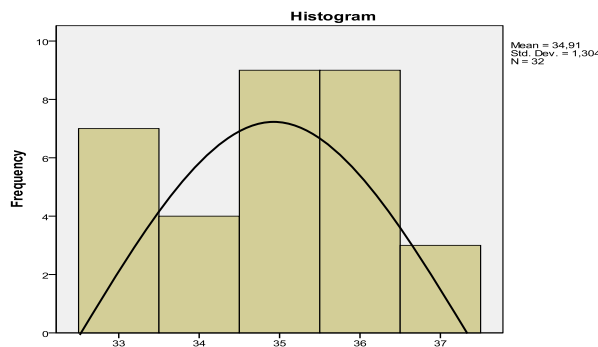
In the Kolmogorov-Smirnov column, the normality test, which had previously been performed manually using the Lilliefors test, indicates that the data are normally distributed.

Table 3. Normality Test

	Tests of Normality					
	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Performance	.185	32	.007	.892	32	.004
Leadership	.202	32	.002	.911	32	.012
Motivation	.216	32	.001	.919	32	.019
Work Environment	.205	32	.002	.936	32	.057

a. Lilliefors Significance Correction

Source: SPSS data (processed), 2024



Source: SPSS data (processed), 2024

Figure 2. Histogram Normality Test

Based on the histogram graph, it can be seen that the data distribution is spread across all areas of the normal curve. Therefore, it can be concluded that the data are normally distributed

4.1.5 Multicollinearity Test

In this study, multicollinearity was assessed using tolerance and Variance Inflation Factor (VIF) values. It is concluded that multicollinearity is absent if the tolerance is greater than 0.1 or the VIF is less than 5. Table 4 shows that the VIF values for each independent variable are below 5, ranging between 1 and 3. Therefore, there is no multicollinearity among the independent variables.

Table 4. Multicollinearity Test

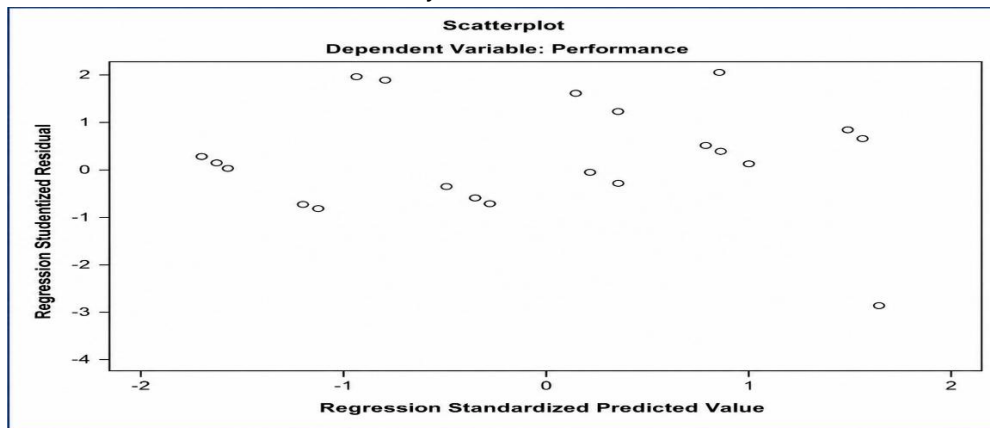
Model	Coefficients ^a					Collinearity Statistics		
	Unstandardized Coefficients		Standardized Coefficients		t	Sig.	Tolerance	VIF
	B	Std. Error	Beta					
1 (Constant)	9.516	2.530			3.762	.001		
Performance	.505	.253	.614		1.999	.055	.080	2.546
Leadership	.154	.239	.196		.645	.524	.081	2.324
Motivation	.077	.159	.094		.484	.632	.200	4.996

a. Dependent Variable: Performance

Source: SPSS data (processed), 2024

4.1.6 Heteroscedasticity Test

Heteroscedasticity is a condition in which there is an inequality of residual variances across all observations in a regression model. In principle, the heteroscedasticity test aims to examine whether a group has the same variance among its members. If the variances are equal, which is the expected condition, it is referred to as homoscedasticity. On the other hand, if the variances are not equal, it indicates the occurrence of heteroscedasticity.



Source: SPSS data (processed), 2024

Figure 3. Histogram Heteroskedasticity Test

4.1.7 Autocorrelation

Autocorrelation is used to test whether, in a regression model, the disturbance variables among the independent variables influence one another. To determine whether a regression model contains autocorrelation, the Durbin-Watson (D-W) approach can be used.

Table 5. Autocorrelation Test

Model	Model Summary ^b				Std. Error of the Estimate	Durbin-Watson
	R	R Square	Adjusted R Square			
1	.888 ^a	.789	.767		.630	1.760

a. Predictors: (Constant), Work environment, Motivation, Leadership

b. Dependent Variable: Performance

Source: SPSS data (processed), 2024



4.1.8 Linear Regression Test

The previous analysis showed that the proposed regression model met the classical assumptions, indicating it was appropriate for further analysis.

Table 6. Linear Regression Estimation Results

		Coefficients ^a				
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	21.678	5.014		4.324	.000
	Performance	.562	.177	.786	3.170	.004
	Leadership	-.233	.219	-.271	-1.062	.297
	Motivation	.051	.091	.093	.562	.578

a. Dependent Variable: Performance
Source: SPSS data (processed), 2024

$$Y = a + b_1X_1 + b_2X_2 + b_3X_3$$

$$Y = 9.516 + 0.505X_1 + 0.154X_2 + 0.077X_3$$

This equation means that:

- A one-unit increase in X₁ (Leadership) will cause an increase in Y (Lecturer Performance) by 0.505 units.
- A one-unit increase in X₂ (Motivation) will cause an increase in Y (Lecturer Performance) by 0.154 units.
- A one-unit increase in X₃ (Work Environment) will cause an increase in Y (Lecturer Performance) by 0.077 units

4.1.9 Partial Testing

Table 7. Table of Hypothesis Test Results for the Leadership Variable

		Coefficients ^a				
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	9.747	2.423		4.024	.000
	Leadership	.728	.070	.885	10.396	.000

a. Dependent Variable: Performance

The t-test is used to determine the extent to which an individual independent variable influences the variation of the dependent variable (Ghozali, 2006). If the significance probability value is less than 0.01, then the independent variable is considered a significant explanatory variable for the dependent variable. Based on Table 7, the significance probability value is 0.000, which is < 0.01. Based on the criteria above, it can be concluded that the Leadership variable (X₁) has a partial effect on Performance (Y). Therefore, H_a is accepted and H₀ is rejected, indicating that the Leadership variable has a significant effect on Performance.

Based on Table 8, the significance probability value is 0.000, which is < 0.01. Based on the criteria above, the Motivation variable (X₂) has a partial effect on Performance (Y). Therefore, H_a is accepted and H₀ is rejected, indicating that the Motivation variable has a significant effect on Performance.



Table 8. Hypothesis Test Results for the Motivation Variable

		Coefficients ^a				
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	11.519	2.471		4.662	.000
	Motivation	.681	.072	.866	9.476	.000

a. Dependent Variable: Performance

Source: SPSS data (processed), 2024

Table 9. Hypothesis Test Results for the Work Environment Variable

		Coefficients ^a				
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	12.240	2.989		4.094	.000
	Work Environment	.667	.088	.811	7.590	.000

a. Dependent Variable: Performance

Source: SPSS data (processed), 2024

The t-test is used to determine the extent to which an individual independent variable influences the variation of the dependent variable (Ghozali, 2006). If the significance probability value is less than 0.01, then the independent variable is considered a significant explanatory variable for the dependent variable. Based on Table 9, the significance probability value is 0.000, which is < 0.01. Based on the criteria above, the Work Environment variable (X_3) has a partial effect on Performance (Y). Therefore, H_a is accepted and H_0 is rejected, which means that the Work Environment variable has a significant effect on Performance.

4.1.10 F Test

The F-statistics are used to determine whether all independent variables in the regression model have a simultaneous influence on the dependent variable (Ghozli, 2006). If the significance probability value is < 0.01 and the F count > the F table, then the independent variables simultaneously influence the dependent variable.

Table 10. Results of Hypothesis Testing of Leadership Variables (X_1), Motivation Variables (X_2), and Work Environment (X_3) on Performance (Y)

		ANOVA ^b				
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	41.616	3	13.872	34.983	.000 ^a
	Residual	11.103	28	.397		
	Total	52.719	31			

a. Predictors: (Constant), Work environment, Motivation, Leadership

b. Dependent Variable: Performance

Source: SPSS data (processed), 2024



Based on Table 10, the significance probability value is 0.000, which is < 0.01 . From the results of the F-test, the calculated F-value was 34.983, while the F-table value was 2.037, indicating that $F\text{-count} > F\text{-table}$ ($34.983 > 2.037$). In accordance with the criteria above, it can be concluded that the Leadership (X_1), Motivation (X_2), and Work Environment (X_3) variables simultaneously affect Performance (Y). Therefore, H_a is accepted, and H_0 is rejected, which means that the Leadership, Motivation, and Work Environment variables simultaneously have a significant effect on Performance

4.2 Discussion

4.2.1 The Effect of Leadership on Lecturer Performance

The results of this study indicate that leadership has a positive and significant effect on lecturer performance. This is evidenced by the t-test result showing a significance value of 0.004, which is below the 0.05 threshold, thereby supporting the first hypothesis (H_1). These findings suggest that improvements in leadership effectiveness directly enhance lecturer performance at Politeknik Negeri Media Kreatif Medan. In other words, lecturers tend to perform better when leaders communicate organizational goals clearly, make appropriate decisions, provide effective supervision, and assume responsibility for organizational outcomes.

From a theoretical perspective, these findings reinforce the view that leadership is a critical organizational factor influencing employee behavior and performance. According to Hasibuan (2022), leadership functions as a mechanism through which organizational goals are translated into coordinated actions by organizational members. Effective leaders can motivate employees, provide direction, and foster a supportive work environment that encourages individuals to exceed minimum expectations. Likewise, Yukl (2023) argues that leadership effectiveness is reflected in the leader's ability to influence followers, manage resources efficiently, and align individual objectives with organizational goals. In the context of higher education, leadership is particularly important because lecturers perform complex professional tasks that require not only technical competence but also institutional support and strategic direction.

The positive relationship between leadership and lecturer performance can be explained by leaders' role in fostering academic engagement and organizational commitment. When institutional leaders actively communicate expectations, provide constructive feedback, and facilitate academic development, lecturers are more likely to feel valued and supported. Such conditions can strengthen their commitment to upholding the Tri Dharma of Higher Education, including teaching, research, and community service. Effective leadership also helps create an atmosphere of trust and collaboration, encouraging lecturers to participate more actively in academic innovation, curriculum development, and scientific publication. Furthermore, leadership contributes to lecturer performance by reducing ambiguity in job responsibilities and improving coordination among academic units. Clear directions and transparent decision-making processes enable lecturers to understand institutional priorities and allocate their efforts more effectively. This is particularly relevant in higher education institutions where lecturers are required to balance multiple responsibilities simultaneously. Through effective supervision and monitoring, leaders can identify obstacles lecturers face and provide the necessary support to improve work outcomes.

The findings also indicate that leadership may function as a catalyst for enhancing other organizational factors that influence performance. Effective leaders are capable of creating a motivating



work environment, encouraging professional development, and facilitating access to resources needed for academic activities. Consequently, leadership not only directly affects performance but may also indirectly influence lecturers' productivity through increased motivation, job satisfaction, and organizational commitment. Empirically, the results of this study are consistent with previous research. Nasution *et al.*, (2024) found that academic leadership positively influences lecturer productivity and teaching quality. Siregar *et al.*, (2024) reported that transformational leadership enhances lecturer performance through stronger organizational commitment. Similarly, Syaputra (2026) demonstrated that leadership support significantly improves employee performance by fostering a conducive organizational climate. The consistency between the present findings and previous studies strengthens the argument that leadership remains one of the most influential determinants of performance in educational institutions.

An interesting finding of this study is that leadership emerged as the most dominant variable affecting lecturer performance compared to other independent variables. This suggests that improvements in leadership quality may generate broader organizational benefits than isolated interventions focused solely on individual factors. Therefore, institutional management should prioritize leadership development programs, including leadership training, communication enhancement, participatory decision-making practices, and strategic supervision systems. Strengthening these aspects of leadership can significantly improve lecturer performance and achieve institutional objectives in higher education.

4.2.2 The Effect of Motivation on Lecturer Performance

The results of this study indicate that motivation has a negative and insignificant effect on lecturer performance. This is evidenced by the p-value of 0.297, which exceeds the 0.05 threshold. Therefore, the second hypothesis (H2), which proposed a positive effect of motivation on lecturer performance, is not supported. Although the coefficient's sign indicates a negative relationship, the effect is not statistically significant, suggesting that motivation does not substantially explain variation in lecturer performance at Politeknik Negeri Media Kreatif Medan.

This finding suggests that lecturer performance may be influenced more strongly by other organizational and structural factors than by motivational aspects alone. In the higher education environment, lecturers are required to perform academic duties in accordance with professional standards and the institutional obligations stipulated in the Tri Dharma of Higher Education. Consequently, lecturers often continue to fulfill their responsibilities despite fluctuations in motivation, as their performance is driven by professional commitment, academic ethics, and institutional regulations. In such circumstances, motivation may not emerge as a dominant determinant of performance.

From a theoretical perspective, motivation is generally regarded as an important factor influencing employee behavior and work outcomes. Afandi (2022) explains that motivation serves as a driving force, encouraging individuals to exert effort to achieve organizational goals. Similarly, Maslow's hierarchy of needs theory suggests that individuals are motivated by the desire to fulfill needs ranging from physiological to self-actualization. However, the present findings indicate that motivation alone may not be sufficient to improve lecturer performance without adequate organizational support, effective leadership, and a conducive work environment. This finding supports the argument that

motivation often operates indirectly through other organizational mechanisms rather than exerting a direct influence on performance.

One possible explanation for the insignificant relationship is that lecturers in higher education institutions tend to possess relatively homogeneous levels of intrinsic motivation. Most lecturers choose academic careers because of their interest in teaching, research, and knowledge development. As a result, motivational differences among lecturers may be relatively small, making motivation less capable of explaining performance differences. In contrast, factors such as leadership quality, availability of research facilities, administrative support, and institutional policies may have a greater influence on determining academic productivity.

Another possible explanation relates to workload and organizational demands. Lecturers are often required to balance teaching activities, research obligations, community service programs, administrative duties, accreditation requirements, and publication targets. Under such conditions, performance may depend more on the availability of time, institutional resources, and workload management than on motivational factors. Even highly motivated lecturers may struggle to improve performance when they face excessive workloads or limited institutional support. Furthermore, motivation may influence performance indirectly through mediating variables such as job satisfaction, organizational commitment, work engagement, or professional dedication. Previous studies have demonstrated that motivated employees generally experience higher job satisfaction and stronger commitment, which subsequently contribute to better performance. Therefore, the absence of a direct effect in this study does not necessarily imply that motivation is unimportant. Rather, it may indicate that the relationship between motivation and performance is more complex and involves intervening variables that were not included in the present research model.

The findings of this study differ from those reported by Telaumbanua, Syaputra, and Gopal (2025), who found that motivation significantly affects job satisfaction and employee productivity. Similarly, Gultom *et al.*, (2025) and Rahmawati *et al.*, (2026) reported positive relationships between motivation and employee performance. These inconsistencies may be attributed to differences in organizational settings, respondent characteristics, measurement instruments, and institutional cultures. While previous studies examined broader organizational environments, the present study focuses specifically on lecturers within a higher education institution, where professional responsibility and academic obligations may play a more prominent role than motivational factors in determining performance outcomes. From a practical perspective, the findings imply that efforts to improve lecturer performance should not rely solely on motivational programs. Institutional management should also focus on strengthening leadership effectiveness, improving academic facilities, reducing administrative burdens, providing research support, and creating a conducive work environment. Such initiatives may have a greater impact on lecturers' performance than motivation enhancement programs alone. Therefore, motivation should be viewed as one component of a broader human resource management strategy aimed at improving lecturer productivity and academic excellence.

4.2.3 The Effect of Work Environment on Lecturer Performance

The results of this study indicate that the work environment has a positive but not statistically significant effect on lecturers' performance. This is evidenced by the significance value of 0.578, which exceeds the 0.05 threshold. Therefore, the third hypothesis (H3), which proposed a positive and significant relationship between work environment and lecturer performance, is rejected. Although the coefficient

direction is positive, indicating that improvements in the work environment tend to be associated with better lecturer performance, the magnitude of the relationship is not strong enough to reach statistical significance.

These findings suggest that the work environment is not a primary determinant of lecturer performance at Politeknik Negeri Media Kreatif Medan. In the context of higher education institutions, lecturers often fulfill their academic responsibilities guided by professional competence, institutional obligations, and a personal commitment to the Tri Dharma of Higher Education. Consequently, lecturers may continue to maintain their performance levels despite variations in workplace conditions. This indicates that lecturer performance may be influenced more strongly by individual and organizational factors such as leadership effectiveness, professional commitment, academic competence, and institutional support than by the physical and social work environment itself.

From a theoretical perspective, the work environment is generally considered an important factor affecting employee productivity and performance. Sedarmayanti (2023) argues that a supportive work environment enhances employee comfort, concentration, motivation, and work effectiveness. Physical aspects such as adequate facilities, workplace safety, lighting, and workspace conditions, as well as non-physical aspects such as communication quality and interpersonal relationships, are expected to facilitate higher performance levels. However, the findings of this study indicate that these environmental factors do not directly translate into improved lecturer performance. This suggests that the influence of the work environment may depend on specific organizational contexts and employee characteristics.

One possible explanation for the insignificant effect is that lecturers possess a relatively high degree of professional autonomy. Unlike employees whose work performance is highly dependent on physical working conditions, lecturers can perform many academic activities independently, including preparing teaching materials, conducting research, writing scientific articles, and participating in community service programs. Advances in digital technology, online learning platforms, and remote collaboration tools have also reduced lecturers' dependence on traditional workplace facilities. As a result, variations in the work environment may have a limited impact on overall performance outcomes.

Another possible explanation relates to the relatively uniform perception of the work environment among respondents. If most lecturers perceive the work environment as generally adequate and supportive, the variation in responses may be insufficient to explain differences in performance. Under such circumstances, the work environment becomes a basic organizational condition rather than a distinguishing factor that drives higher performance. In other words, a satisfactory work environment may be viewed as a standard requirement that enables lecturers to work effectively, but it does not necessarily motivate them to achieve superior performance.

Furthermore, the relationship between work environment and performance may not be direct. Previous organizational behavior studies suggest that the work environment often influences performance through mediating variables such as job satisfaction, organizational commitment, work engagement, and employee well-being. A supportive work environment may initially increase lecturers' satisfaction and comfort, which in turn contributes to improved performance. Since these mediating variables were not included in the present research model, the direct effect of the work environment on lecturer performance may appear weak and statistically insignificant.

The findings of this study differ from those reported by Harahap and Ginting (2025), who found that the work environment significantly affects lecturer productivity. Similarly, Hutagalung *et al.*, (2026) reported that adequate facilities contribute positively to educator performance, while Syaputra *et al.*,



(2025) found that workplace safety and environmental support enhance employee productivity. The inconsistency between the present findings and previous studies may be explained by differences in institutional characteristics, organizational culture, infrastructure quality, respondent profiles, and research settings. Educational institutions with limited facilities may experience a stronger impact of the work environment on performance, whereas institutions with relatively adequate facilities may observe weaker relationships because environmental conditions are no longer a major concern for employees.

From a practical standpoint, these findings imply that improving lecturer performance should not rely solely on enhancing physical facilities or workplace conditions. While maintaining a conducive work environment remains important for supporting academic activities, institutional management should place greater emphasis on strengthening leadership quality, professional development programs, research support systems, and organizational policies that encourage academic excellence. A balanced approach that integrates environmental support with effective leadership and human resource development strategies is likely to produce more substantial improvements in lecturer performance. Overall, the findings indicate that the work environment serves as a supporting factor rather than a primary driver of lecturer performance. Although a conducive work environment remains necessary to facilitate academic activities, its contribution to performance improvement appears to be less significant than other organizational and individual factors within the context of higher education institutions.

4.2.4 Simultaneous Effect of Leadership, Motivation, and Work Environment on Lecturer Performance

The results of the F-test indicate that leadership, motivation, and work environment simultaneously have a significant effect on lecturer performance. This is evidenced by the calculated F-value of 6.059 with a significance level of 0.003, which is lower than the threshold of 0.05. These findings demonstrate that the three independent variables, when considered collectively, contribute significantly to explaining variations in lecturer performance. Therefore, although motivation and work environment were found to have no significant individual effects, their combined presence together with leadership forms a model that significantly influences lecturer performance.

This result suggests that lecturer performance cannot be explained by a single factor alone but rather emerges from the interaction of various organizational and individual determinants. In higher education institutions, lecturers are required to fulfill multiple responsibilities, including teaching, research, community service, academic administration, and institutional development. Consequently, performance outcomes are influenced by a combination of leadership support, motivational conditions, workplace characteristics, professional competence, organizational commitment, and institutional resources. The significant simultaneous effect identified in this study reinforces the notion that lecturer performance is a multidimensional construct requiring a comprehensive management approach.

From a theoretical perspective, the findings support the view that organizational performance is influenced by the integration of leadership factors, motivational processes, and environmental conditions. Human resource management theories emphasize that employee performance is not solely determined by individual willingness to work but also by organizational systems that provide direction, support, and opportunities for achievement. Effective leadership can create a positive organizational climate, motivation can encourage employees to exert effort, and a conducive work environment can facilitate the execution of work activities. Therefore, the combined influence of these variables is expected to produce stronger performance outcomes than any single variable operating independently.



The coefficient of determination (R^2) value of 0.394 indicates that 39.4% of the variation in lecturer performance can be explained by leadership, motivation, and work environment. This level of explanatory power can be considered moderate, suggesting that the model provides meaningful insights into the determinants of lecturer performance while also indicating the existence of other influential factors not included in the study. The remaining 60.6% of unexplained variance may be attributed to variables such as organizational commitment, job satisfaction, professional competence, research capability, academic experience, workload, compensation systems, organizational culture, technological support, work engagement, and institutional policies.

The relatively moderate R^2 value reflects the complexity of lecturer performance in higher education institutions. Unlike routine occupations, lecturers perform knowledge-intensive tasks that require intellectual capacity, creativity, innovation, and professional judgment. As a result, their performance is often influenced by factors beyond traditional organizational variables. For example, academic qualifications, research funding opportunities, publication requirements, collaborative networks, and access to learning technologies may substantially affect lecturers' productivity in teaching, research, and community service activities.

An important finding of this study is that leadership emerged as the strongest contributor among the variables examined. This result is consistent with the individual hypothesis testing, which showed that leadership was the only variable with a statistically significant effect on lecturer performance. The finding implies that leadership serves as a central mechanism through which organizational goals are translated into academic achievements. Effective leaders provide direction, facilitate communication, coordinate institutional activities, and create conditions that enable lecturers to perform their duties more effectively. Consequently, leadership appears to play a more decisive role than motivation and work environment in shaping lecturer performance within the context of Politeknik Negeri Media Kreatif Medan.

The results also indicate that motivation and work environment should not be viewed as unimportant factors despite their insignificant individual effects. Their contribution may become more meaningful when interacting with leadership or when operating through mediating mechanisms such as job satisfaction, organizational commitment, and work engagement. This finding suggests that improving lecturer performance requires an integrated approach rather than focusing on a single organizational factor. Institutions should develop policies that simultaneously strengthen leadership quality, enhance employee motivation, and maintain a supportive work environment to maximize performance outcomes.

From a practical perspective, the findings imply that institutional management should prioritize leadership development while continuing to support motivational programs and workplace improvements. Leadership training, participatory decision-making, effective communication systems, mentoring programs, and academic support initiatives may help strengthen lecturer performance. At the same time, efforts to improve motivation and maintain a conducive work environment remain necessary as complementary elements within a broader human resource management strategy. Overall, the significant simultaneous effect of leadership, motivation, and work environment confirms that lecturer performance is shaped by a combination of organizational and individual factors. The findings highlight the importance of adopting a holistic approach to human resource management in higher education institutions, where multiple dimensions of support are required to achieve sustainable improvements in lecturer performance and institutional effectiveness.

5. Concluding Remarks and Recommendation

This study aims to analyze the effect of leadership, motivation, and work environment on lecturer performance at Politeknik Negeri Media Kreatif Medan. The study was conducted based on the assumption that lecturer performance, as one of the key determinants of higher education quality, is influenced by both organizational and individual factors. Understanding the factors that contribute to lecturer performance is essential for improving the effectiveness of higher education institutions in carrying out the Tri Dharma of Higher Education, namely education, research, and community service.

Based on the results of the data analysis, it can be concluded that leadership has a positive and significant effect on lecturer performance. This finding indicates that effective leadership plays a crucial role in enhancing lecturers' ability to perform their academic responsibilities. Leaders who demonstrate effective communication, provide clear direction, exercise appropriate supervision, assume responsibility, and make strategic decisions can create a supportive academic environment that encourages lecturers to perform more effectively. Among the variables examined in this study, leadership emerged as the most influential factor affecting lecturer performance. This finding highlights the strategic importance of leadership in managing academic institutions and fostering organizational effectiveness.

In contrast, motivation was found to have a negative but statistically insignificant effect on lecturer performance. This result suggests that motivation alone is insufficient to explain variations in lecturers' performance in this study. Although motivation is theoretically recognized as a key factor influencing employee behavior and productivity, lecturers may rely more heavily on professional commitment, academic responsibility, and institutional obligations in carrying out their duties. Consequently, motivational factors may not directly translate into improved performance without adequate organizational support and effective leadership.

Similarly, the work environment was found to have a positive but insignificant effect on lecturer performance. This finding indicates that while a supportive work environment may contribute to lecturers' comfort and facilitate the implementation of academic activities, it is not the primary determinant of performance. Lecturers are generally able to adapt to existing workplace conditions and maintain their professional responsibilities despite environmental constraints. Therefore, improvements in physical facilities and workplace conditions alone may not necessarily lead to significant increases in lecturer performance unless accompanied by improvements in other organizational factors.

Despite the insignificant partial effects of motivation and work environment, the simultaneous test results revealed that leadership, motivation, and work environment collectively have a significant effect on lecturer performance. This finding confirms that lecturer performance is multidimensional and cannot be explained by a single factor. Instead, performance is shaped by the interaction of various organizational and individual elements that collectively influence academic productivity. The significant F-test result demonstrates that the combination of leadership, motivation, and work environment provides a meaningful explanation of lecturer performance within the institution. Furthermore, the coefficient of determination (R^2) of 0.394 indicates that 39.4% of the variation in lecturer performance is explained by leadership, motivation, and work environment. The remaining 60.6% is influenced by other variables not included in the research model. This finding suggests that lecturer performance is a complex phenomenon influenced by a broad range of factors, including organizational commitment, job satisfaction, professional competence, work discipline, compensation, organizational culture,



academic experience, research support, technological resources, and institutional policies. Therefore, future research should consider incorporating these variables to gain a more comprehensive understanding of the determinants of lecturer performance.

The findings of this study provide several practical implications for institutional management. First, higher education institutions should prioritize leadership development initiatives by strengthening leadership competencies in communication, supervision, decision-making, and strategic planning. Effective leadership can create a positive organizational climate that supports lecturer productivity and professional development. Second, institutions should continue to improve communication systems and collaboration among academic units to ensure that organizational goals are clearly understood and effectively implemented. Third, although motivation and work environment were not found to have significant direct effects, institutional management should continue to provide motivational support, professional development opportunities, adequate facilities, and a conducive work environment to sustain lecturer engagement and well-being.

From a theoretical perspective, this study contributes to the literature on human resource management and higher education management by demonstrating that leadership remains a dominant determinant of lecturer performance, while motivation and work environment may operate through more complex mechanisms or indirect pathways. The findings support the argument that organizational factors should be examined holistically rather than independently when analyzing employee performance in academic institutions. Finally, future studies are encouraged to expand the scope of research by involving larger samples from different higher education institutions, incorporating additional explanatory variables, and employing more advanced analytical approaches such as mediation and moderation models. Such efforts will provide deeper insights into the mechanisms through which organizational and individual factors influence lecturer performance and contribute to the development of more effective human resource management strategies in higher education.

Statement of Use of Generative AI

During the preparation of this work, the author used generative artificial intelligence tools to support the scientific writing process. Grammarly was used to check grammar, refine writing style, and improve clarity in scientific writing. All interpretations, analyses, and conclusions presented in this study are the sole responsibility of the author.

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