
THE EFFECT OF NEUROLEADERSHIP AND ORGANIZATIONAL COMMITMENT ON EMPLOYEE PERFORMANCE AT PT PLN (PERSERO) UP3 MEDAN UTARA

Dea Ananda ^{1*}, Yuli Arnida Pohan ²

^{1,2} Management Study Program / Universitas Potensi Utama, Medan, Indonesia

E-mail: dea97447@gmail.com^{1*}, kotaksuratuli23@mail.com²

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Abstract

The purpose of this study was to determine the effect of neuroleadership and organizational commitment on employee performance at PT PLN (Persero) UP3 Medan Utara. This type of research uses quantitative research methods. The population used in this study was 79 people. In this study, the sampling technique was a saturated sample technique, which used all company employees, so that 30 respondents were obtained. The analysis methods used included multiple linear regression, T test, F test, and coefficient of determination (R²). The results showed that neuroleadership partially had a positive and significant effect on employee performance with a t-count of neuroleadership of 4.386 > t-table 1.665 and a significance of 0.000 < 0.05 while organizational commitment partially had a positive and significant effect on employee performance with a t-count of 5.319 > t-table 1.665 and a significance of 0.000 < 0.05. The coefficient of determination, or Adjusted R-Square, obtained in the model was 0.443, or 44.3%, with the remaining 55.7% explained by variables outside the model that were not examined. Simultaneously, neuroleadership and organizational commitment significantly influenced employee performance.

Keywords: Neuroleadership, Organizational Commitment, Employee Performance

INTRODUCTION

In the era of globalization, characterized by a dynamic and competitive business environment, human resources (HR) are no longer viewed merely as a factor of production but as a strategic asset and a key source of competitive advantage for organizations. An organization's success in achieving its goals is not determined solely by sophisticated systems, capital availability, or adequate facilities; rather, it relies heavily on the quality and stability of its workforce. Competent, adaptive, and highly committed employees are primary drivers of organizational effectiveness, whereas workforce instability can disrupt operational processes, diminish service quality, and hinder the achievement of organizational objectives. The importance of adapting and developing human resource capacity amidst the dynamics of global change aligns with the views expressed by Lubis et al. (2024) in their book, *Pengembangan Sumber Daya Manusia di Era 4.0* (Human Resource Development in the 4.0 Era). They emphasize that HR development in the modern industrial era must focus on cultivating a workforce that not only possesses a competitive edge but is also capable of innovation and demonstrates high flexibility in the face of increasingly complex changes in the work environment. Consequently, human resource management is no longer merely a routine administrative activity but a vital strategy for ensuring that the organization remains relevant to the demands of the times.

In the electricity supply industry, the role of Human Resource Management (HRM) is increasingly critical, given that the primary outputs are electricity reliability and workplace safety. As a customer service implementation unit, PT PLN (Persero) UP3 Medan Utara provides electricity-related services, including network maintenance, technical services, outage handling, and new service connections. The unit plays a vital role in supplying electrical energy to support economic activity and community well-being in the North Medan area. The organization's success in maintaining reliable electricity distribution and delivering quality service depends heavily on the quality and performance optimization of its human resources. With a relatively limited workforce making specific contributions

across various operational lines, the in-depth management and evaluation of all employees are key factors in operational success. The number of employees in an organization reflects the quantitative capacity of its human resources, which determines the distribution of workloads and operational efficiency, thereby impacting employee performance. Performance is also a key factor in determining whether established targets are met. Employees are crucial to a company's progress; achieving corporate goals requires staff capable of executing their assigned tasks. In general, employee performance refers to the work outcomes produced by staff in pursuit of the company's objectives. Mangkunegara (2021) defines employee performance as the qualitative and quantitative work results achieved by an employee in carrying out their duties in accordance with assigned responsibilities. This emphasizes that performance assessment focuses not merely on the volume of work completed by an individual, but also on meeting the quality standards established by the company. According to Silaen et al. (2021), employee performance is a fundamental aspect of a company or organization, derived from the output produced by individuals as they complete tasks within their respective workloads.

A significant issue facing PT PLN (Persero) UP3 Medan Utara is the fluctuation in the achievement of operational targets, as measured by Key Performance Indicators (KPIs). This instability in target achievement directly impacts the productivity of electricity services. In this context, researchers (Azhari et al., 2025) state that unbalanced workloads can lead to employee burnout, thereby hindering the achievement of KPIs. Furthermore, Kuncorowati and Supardin (2024) emphasize that without clear, adaptive performance indicators, employee work motivation declines, resulting in a failure to meet organizational targets. Consequently, evaluating KPI realization is a crucial factor in maintaining consistent employee performance. This report details the achievement of annual Key Performance Indicators (KPIs) established by the management of PT PLN (Persero) UP3 Medan Utara. For 2024, the unit's total proportional performance score reached 105.87, indicating a "Good" performance level. However, an analysis of specific indicators reveals areas requiring attention: the "kWh Recovery from P2TL (Loss Reduction Inspections)" indicator falls into the "Problem" category, while the "Customer Compliance (720-Hour Burn Time)" and "Unit Productivity" indicators fall into the "Caution" category.

Addressing these factors requires more than just facility improvements; it calls for a new leadership approach focused on optimizing employees' brain function during problem-solving—an approach known as Neuroleadership. Neuroleadership was first popularized by David Rock, an Australian management consultant. It is a leadership approach that integrates neuroscience principles with leadership theories. According to Pohan (2026), Neuroleadership focuses on understanding how the brain functions in response to stress and conflict management, as well as in decision-making processes that involve social and emotional factors. Previous research specifically examining the relationship between neuroleadership and employee performance remains relatively limited, yet it highlights a matter of significant importance. A recent study by Kavousi (2026) found that the application of neuroleadership principles influences employee performance by integrating decision-making processes with organizational emotional regulation. Meanwhile, Pohan et al. (2026) demonstrated that high-quality leader-subordinate relationships, neuroscience-based leadership practices, and a strong work ethic all impact employee performance.

One of the key frameworks in neuroleadership consists of five main pillars that guide how leaders interact with their teams on rational, emotional, and social levels (Pohan et al., 2026), enabling them to understand how the brain responds to various factors within social relationships. Preliminary survey results indicate that neuroleadership is generally perceived positively across the dimensions of Status, Relatedness, and Fairness, with a predominance of affirmative responses in each. However, regarding the dimensions of Certainty and Autonomy, some respondents feel that leadership performance is not yet fully optimal—specifically in terms of clarifying work direction, establishing communication, and entrusting team members with full control over determining the methods or steps required to complete tasks. In addition to neuroleadership, organizational commitment is a factor influencing employee performance outcomes. According to Robbins and Judge (2022), organizational commitment refers to the degree to which an individual identifies with an organization and their willingness to exert effort toward achieving organizational goals. It represents a perception shared by the individual and their employer that encourages the maintenance of membership. Organizational commitment is defined as an employee's desire to remain with the organization and strive to achieve its objectives (Dermawan, 2025). As a psychological state, it reflects an employee's willingness to accept company norms and demonstrates their loyalty and attachment to the organization (Octarinie et al., 2023).

Although organizational commitment is considered a primary driver of employee performance, the results of previous studies remain inconsistent. Several studies (Maranata & Widyaningtyas, 2022; Sukmaningsih, 2022; Andriani & Firdaus, 2025; Jufrizen & Fahmi, 2018) indicate that organizational commitment influences employee

performance, with high levels of loyalty contributing optimally to company productivity. These findings are further supported by Mitariani & Imbayani (2022) and Badrianto & Astuti (2023), who confirm the impact of organizational commitment on employee performance outcomes. These conflicting research findings indicate a research gap, suggesting that the impact of organizational commitment on employee performance warrants further examination. In particular, the decline in employee emotional attachment appears linked to a lack of adaptive leadership and an operational work environment that is not yet conducive to productivity. This has a direct impact on performance fluctuations. Consequently, the optimization of service digitalization is hindered, and the response time for handling customer complaints slows down. Pre-survey results indicate that employees' normative and affective commitments are quite strong; the majority feel proud and psychologically attached, and possess a full sense of responsibility to deliver their best performance for the company. However, regarding continuance commitment—specifically concerning financial aspects and benefits—the compensation or material rewards currently received do not yet serve as a compelling enough reason for employees to remain with the company.

While extensive research has been conducted on employee performance, no study has explicitly analyzed the combined influence of neuroleadership and organizational commitment on performance; this study aims to address that gap. Based on this context, the performance of employees at PT PLN (Persero) UP3 Medan Utara presents a tangible issue requiring deeper investigation. Factors such as relatively high performance figures, indications of job-seeking behavior in pre-survey results, complaints regarding leadership communication, high work demands, and suboptimal organizational commitment suggest a relationship worthy of empirical examination. Based on the background above, the problem identification for this study can be summarized as follows:

1. The employee performance at PT PLN (Persero) UP3 Medan Utara has not yet reached an optimal level across several indicators—such as P2TL kWh recovery network efficiency, the regularization of "720-hour" customers, and unit productivity—which remain below established targets. This indicates room for overall improvement in employee performance.
2. The neuroleadership approach implemented by management is quite effective regarding recognition, working relationships, and fairness in assessment. However, it remains weak in terms of work target clarity and the autonomy granted to employees to determine their own work methods.
3. Employee organizational commitment is strong regarding emotional attachment and moral responsibility; however, it is not yet sufficiently supported by rational considerations concerning the benefits and facilities received by employees.

Referring to the background of the problem, research formulation, and objectives, the researcher can state the following hypotheses:

H1: There is an influence of Neuroleadership on Employee Performance.

H2: There is an influence of Organizational Commitment on Performance Employee

H3: There is an influence of Neuroleadership and Organizational Commitment on Employee Performance.

METHOD

This study employed an associative approach, which aims to identify the relationship or connection between one variable and another (Sugiyono, 2021). The method employed was quantitative. The data used in this study included both primary and secondary data. The research site is the location where the researcher conducted observations and gathered the necessary data regarding the company. The study was carried out at PT PLN (PERSERO) UP3 Medan Utara, located at Jl. KL. Yos Sudarso No. 115, Glugur Kota, Medan Barat District, Medan City, North Sumatra 20115. The research was conducted from February to July 2026. The population for this study consists of all 79 employees of PT PLN (Persero) UP3 Medan Utara. Various sampling techniques exist for determining the sample to be used in a study; these techniques can generally be categorized into two types: probability sampling and non-probability sampling. The researcher employed a non-probability sampling technique known as saturated sampling (census), a method in which the entire population serves as the sample (Sugiyono, 2022). Consequently, the sample for this study comprises the 79 employees of PT PLN (Persero) UP3 Medan Utara.

RESULTS AND DISCUSSION

Results

Validity and Reliability Test Results

Table 1. Results of the Validity Test of Neuroleadership, Organizational Commitment and Employee Performance

Statement Item	r-count	r-table	Description
N1	0,751	0,361	Valid
N2	0,601	0,361	Valid
N3	0,744	0,361	Valid
N4	0,584	0,361	Valid
N5	0,600	0,361	Valid
N6	0,586	0,361	Valid
N7	0,727	0,361	Valid
N8	0,453	0,361	Valid
N9	0,763	0,361	Valid
N10	0,618	0,361	Valid
OC1	0,828	0,361	Valid
OC2	0,834	0,361	Valid
OC3	0,705	0,361	Valid
OC4	0,580	0,361	Valid
OC5	0,709	0,361	Valid
OC6	0,792	0,361	Valid
MO1	0,527	0,361	Valid
MO2	0,820	0,361	Valid
MO3	0,837	0,361	Valid
MO4	0,624	0,361	Valid
MO5	0,793	0,361	Valid
MO6	0,779	0,361	Valid
MO7	0,753	0,361	Valid
MO8	0,594	0,361	Valid
MO9	0,707	0,361	Valid
MO10	0,849	0,361	Valid

Source: SPSS version 25 (2026)

Referring to Table 1, it is known that the corrected item total correlation value is > 0.361 , so all statement items are stated to be valid/legitimate.

Table 2. Results of the Reliability Test of Neuroleadership, Organizational Commitment and Employee Performance

Variable	Cronbach Alpha	Description
Neuroleadership	0,845	Reliable
Organizational Commitment	0,839	Reliable
Employee Performance	0,902	Reliable

Source: SPSS version 25 (2026)

Referring to Table 2, it is known that the Cronbach's alpha value for all variables is > 0.60 , so all statement items are stated to be reliable.

Normality Test Results

Table 3. Kolmogorov-Smirnov Test Results

		Unstandardized Residual
N		79
Normal Parameters ^{a,b}	Mean	.0000000
	Std. Deviation	3.55944012
Most Extreme Differences	Absolute	.087
	Positive	.087
	Negative	-.054
Test Statistic		.087
Asymp. Sig. (2-tailed)		.200 ^{c,d}

a. Test distribution is Normal.

b. Calculated from data.

c. Lilliefors Significance Correction.

d. This is a lower bound of the true significance.

Source: SPSS version 25 (2026)

Referring to Table 3. above, it is known that the results of the Kolmogorov-Smirnov test have a significance value of $0.200 > 0.05$ so it can be concluded that the data tested is normally distributed.

Multicollinearity Test Results (Tolerance and VIF)

Table 4. Multicollinearity Test Results

Model	Coefficients ^a					Collinearity Statistics	
	Unstandardized Coefficients		Standardized Coefficients		t	Sig.	Tolerance VIF
	B	Std. Error	Beta				
1 (Constant)	6.653	4.166			1.597	.114	
Neuroleadership	.404	.092	.384		4.386	.000	.932 1.073
Organizational Commitment	.704	.132	.466		5.319	.000	.932 1.073

a. Dependent Variable: Employee Performance

Source: SPSS version 25 (2026)

Referring to Table 4, it is known that the results of the multicollinearity test for the variables neuroleadership and organizational commitment have a tolerance value > 0.10 and $VIF < 10$, so this study is declared free from multicollinearity problems.

Heteroscedasticity Test Results (Glejser)

Table 5. Glejser Heteroscedasticity Test Results

Table 3. Stepwise Hierarchical Regression Test Results						
Coefficients ^a						
		Unstandardized Coefficients		Standardized Coefficients		
	Model	B	Std. Error	Beta	t	Sig.
1	(Constant)	1.755	2.327		.754	.453
	Neuroleadership	.065	.051	.148	1.261	.211
	Organizational	-.060	.074	-.095	-.813	.419
	Commitment					

a. Dependent Variable: Abs_res

Source: SPSS version 25 (2026)

Referring to Table 5. above, the results of the Glejser test above, the significance value of the independent variables neuroleadership and organizational commitment is > 0.05 , so it can be concluded that there is no heteroscedasticity.

Multiple Linear Regression Test Results

Table 6. Multiple Linear Regression Test Results

Model	Unstandardized Coefficients		Standardized Coefficients		t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta				Tolerance	VIF
1 (Constant)	6.653	4.166			1.597	.114		
Neuroleadership	.404	.092	.384		4.386	.000	.932	1.073
Organizational Commitment	.704	.132	.466		5.319	.000	.932	1.073

a. Dependent Variable: Employee Performance

Source: SPSS version 25 (2026)

Referring to Table 6, the regression equation for the above values is:

$$Y = 6,653 + 0,404 X1 + 0,704 X2 + e$$

1. The constant of 6.653, with a standard error of 4.166, indicates that if the variables Neuroleadership and Organizational Commitment are assumed to be absent or zero, Employee Performance is predicted to be 6.653. This constant value represents the baseline level of employee performance prior to the influence of the Neuroleadership and Organizational Commitment variables.
2. Neuroleadership (X1) has a regression coefficient of 0.404 with a standard error of 0.092. This value indicates that every one-unit increase in the Neuroleadership variable results in a 0.404-unit increase in Employee Performance, assuming the Neuroleadership variable remains constant. The positive coefficient indicates that higher levels of Neuroleadership among employees correspond to higher levels of Employee Performance. Furthermore, the significance value of 0.000—which is less than 0.05—indicates that Neuroleadership has a positive and significant effect on Employee Performance.
3. Organizational Commitment (X2) has a regression coefficient of 0.704 with a standard error of 0.132. This means that every one-unit increase in the Organizational Commitment variable results in a 0.704-unit increase in Employee Performance. The positive coefficient value indicates that stronger Organizational Commitment among employees corresponds to higher Employee Performance. The significance value of 0.000—which is less than 0.05—indicates that Organizational Commitment has a positive and significant effect on Employee Performance. Additionally, the fact that the regression coefficient for Organizational Commitment is higher than that for Neuroleadership indicates that Organizational Commitment is the variable exerting a more dominant influence on employee performance.

Hypothesis Testing

Partial Test Results (t-Test)

Table 7. Partial Test Results (t-Test)

Model	Unstandardized Coefficients		Standardized Coefficients		t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta				Tolerance	VIF
1 (Constant)	6.653	4.166			1.597	.114		
Neuroleadership	.404	.092	.384		4.386	.000	.932	1.073
Organizational Commitment	.704	.132	.466		5.319	.000	.932	1.073

a. Dependent Variable: Employee Performance

Source: SPSS version 25 (2026)

Referring to Table 7, it is known that the independent variables influence each other on the dependent variable.

1. The Influence of Neuroleadership on Employee Performance at PT PLN (Persero) UP3 Medan Utara
Based on the t-test results shown in the table above, the hypothesis testing criteria are applied. For a significance level of 0.05, the degrees of freedom are calculated as (n-k), where n is the number of respondents and k is the number of variables (79 - 3 = 76). The t-table value for n = 79 is 1.665. Regarding the influence of Neuroleadership on Employee Performance, the calculated t-value (t-count) is 4.386, which

exceeds the t-table value of 1.665; therefore, based on the partial test criteria, it is concluded that H1 is accepted, meaning Neuroleadership has a positive and significant partial influence on Employee Performance. Thus, it can be concluded that Neuroleadership has a positive and significant effect on Employee Performance because the t-count value is greater than the t-table value.

2. The Influence of Organizational Commitment on Employee Performance at PT PLN (Persero) UP3 Medan Utara

Based on the t-test results shown in the table above, the hypothesis testing criteria are applied. For a significance level of 0.05, the degrees of freedom are calculated as (n-k), where n is the number of respondents and k is the number of variables ($79 - 3 = 76$). The t-table value for $n = 79$ is 1.665. Regarding the influence of Organizational Commitment on Employee Performance, the calculated t-value (t-count) is 5.319, which exceeds the t-table value of 1.665; therefore, based on the partial test criteria, it is concluded that H1 is accepted, meaning Organizational Commitment has a positive and significant partial influence on Employee Performance. Thus, it can be concluded that Organizational Commitment has a positive and significant effect on Employee Performance because the t-count value is greater than the t-table value.

Simultaneous Test Results (F-Test)

Table 8. Simultaneous Test Results (F-Test)

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	832.479	2	416.239	32.011	.000 ^b
	Residual	988.230	76	13.003		
	Total	1820.709	78			

a. Dependent Variable: Employee Performance

b. Predictors: (Constant), Organizational Commitment, Neuroleadership

Source: SPSS version 25 (2026)

Based on the table above, the calculated F-value is 32.011, while the F-table value at $\alpha = 0.05$ with $n = 75$ is 2.44. These results show that the calculated F-value exceeds the F-table value ($32.011 > 2.727$). Therefore, it can be concluded that the variables of Neuroleadership (X1) and Organizational Commitment (X2) simultaneously have a positive and significant effect on Employee Performance at PT PLN (Persero) UP3 Medan Utara.

Determination Test Results

Table 9. Determination Test Results

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.676 ^a	.457	.443	3.606

a. Predictors: (Constant), Organizational Commitment, Neuroleadership

Source: SPSS version 25 (2026)

Based on the table above, the Adjusted R-squared value is 0.443, meaning that 44.3% of the factors influencing employee performance can be explained by neuroleadership and organizational commitment. Meanwhile, the remaining 55.7% can be explained by other factors not examined in this study.

Discussion

The Effect of Neuroleadership on Employee Performance at PT PLN (Persero) UP3 Medan Utara

Statistical results from the partial test demonstrate a positive and significant influence of the Neuroleadership variable on employee performance at PT PLN (Persero) UP3 Medan Utara. The partial test table shows a calculated t-value of 4.386 with a significance level of 0.000—well below the 0.05 threshold—leading to the conclusion that H1 is accepted; this indicates that Neuroleadership has a positive and significant partial effect on employee performance. Neuroleadership influences employee performance because it reflects a leader's ability to manage employees' neurological responses across five social domains: Status, Certainty, Autonomy, Relatedness, and Fairness (SCARF). Employees led using an approach that emphasizes clear work direction, task autonomy,

harmonious relationships, recognition of contributions, and fair treatment tend to perceive their working conditions as a "reward" for the brain, thereby motivating them to perform optimally. Conversely, if leaders fail to manage these five domains effectively, employees' brains may perceive the situation as a "threat," which can diminish focus and motivation, ultimately leading to reduced performance. This study aligns with research conducted by Pohan (2026)—titled "Neuroleadership: The Secret to Employee Performance Through Understanding a Healthy Brain"—which found that the quality of the superior-subordinate relationship and neuroscience-based leadership practices have a positive and significant impact on employee performance.

The Effect of Organizational Commitment on Employee Performance at PT PLN (Persero) UP3 Medan Utara

Statistical results from the partial test demonstrate a positive and significant influence of the Organizational Commitment variable on Employee Performance at PT PLN (Persero) UP3 Medan Utara. The partial test table reveals a calculated t-value of 5.319 with a significance level of 0.000—well below the 0.05 threshold—leading to the conclusion that H2 is accepted; this indicates that Organizational Commitment has a positive and significant partial effect on Employee Performance, contributing more substantially than the Neuroleadership variable (as evidenced by regression coefficients of 0.704 versus 0.404). Organizational commitment influences employee performance because it reflects the extent to which employees identify with the organization and their willingness to strive toward organizational goals. Organizational commitment comprises three dimensions: affective commitment (emotional attachment), continuance commitment (a cost-benefit analysis of received rewards), and normative commitment (a moral obligation to remain and perform well). Employees with strong organizational commitment are generally willing to exert extra effort, take full responsibility for their tasks, and adhere to company regulations, resulting in more optimal performance. Conversely, employees with weak commitment tend to work merely to meet minimum requirements, potentially compromising the quality and productivity of their work.

The Simultaneous Effect of Neuroleadership and Organizational Commitment on Employee Performance at PT PLN (Persero) UP3 Medan Utara

Based on the research findings, the simultaneous test results (ANOVA) regarding the influence of Neuroleadership and Organizational Commitment on Employee Performance at PT PLN (Persero) UP3 Medan Utara indicate a significant simultaneous effect. The calculated F-value is 32.011 with a significance level of 0.000, which is below the 0.05 threshold. Consequently, it can be concluded that the variables of Neuroleadership (X1) and Organizational Commitment (X2) jointly exert a positive and significant influence on Employee Performance (Y) at PT PLN (Persero) UP3 Medan Utara; thus, the third hypothesis (H3) is accepted. The coefficient of determination (Adjusted R-Square) of 0.443 indicates that 44.3% of the variation in Employee Performance is explained by the Neuroleadership and Organizational Commitment variables, while the remaining 55.7% is explained by variables outside the research model. Simultaneously, neuroleadership and organizational commitment can be viewed as interconnected factors influencing employee performance at PT PLN (Persero) UP3 Medan Utara. Neuroleadership relates to how leaders manage employees' neurological responses through clarity of work direction, autonomy, work relationships, recognition, and fairness, whereas organizational commitment relates to the extent to which employees are emotionally, materially, and morally attached to their organization. Therefore, given that the simultaneous test (F-test) results show a significant joint influence of neuroleadership and organizational commitment on employee performance, it can be concluded that these two variables simultaneously play a crucial role in determining the performance levels of employees at PT PLN (Persero) UP3 Medan Utara.

Effective neuroscience-based leadership helps employees work with greater confidence and direction, while strong organizational commitment encourages employees to exert extra effort for the company. The combination of these two conditions can help drive the consistent achievement of the company's KPI targets. Conversely, if the implementation of neuroleadership is suboptimal and employee commitment to the organization is low, employee performance is likely to decline, as reflected in the phenomenon of unstable KPI achievement. This study aligns with the findings of Jufrizen and Fahmi (2018), which indicate that organizational commitment has a positive and significant impact on employee performance. These findings are reinforced by Maranata and Widyaningtyas (2022), who assert that high levels of employee loyalty and engagement contribute optimally to company productivity. Meanwhile, the leadership perspective is supported by Mangkunegara (2021), who states that employee performance is influenced by ability and motivation; specifically, employee work motivation is heavily shaped by leadership styles and the extent of the employees' psychological attachment to the organization. Furthermore, the results of this study corroborate the pre-survey findings discussed in the research background, which revealed that performance issues at PT PLN (Persero) UP3 Medan Utara are closely linked to leadership and employee work commitment;

consequently, simultaneously strengthening both factors is projected to drive a more comprehensive and sustainable improvement in employee performance.

CONCLUSION

Based on the research results, it can be concluded that:

1. Neuroleadership has a significant positive effect on employee performance at PT PLN (Persero) UP3 Medan Utara. Descriptive analysis indicates that the "Certainty" dimension exerts the greatest influence, particularly regarding the clarity with which leaders communicate work targets and objectives. Conversely, the "Status" dimension shows the least influence, suggesting that leadership appreciation for employees requires improvement. These findings underscore the importance of leadership that provides clear direction while also acknowledging employee contributions.
2. Organizational commitment has a significant positive effect on employee performance at PT PLN (Persero) UP3 Medan Utara. Descriptive analysis indicates that the "Normative Commitment" dimension has the greatest influence, reflecting a strong sense of responsibility among employees to complete tasks despite facing difficulties. Conversely, the "Continuance Commitment" dimension shows the least influence, suggesting that available compensation and facilities are not yet the primary drivers of employee loyalty. This implies that employee commitment is driven more by moral values than by financial incentives.
3. Simultaneous testing results indicate that Neuroleadership and Organizational Commitment jointly influence employee performance at PT PLN (Persero) UP3 Medan Utara. Descriptive analysis shows that the "Work Quality" dimension has the greatest influence, demonstrating that employees are capable of producing work that meets organizational quality standards. Conversely, the "Initiative" dimension shows the least influence, identifying a need to better foster employee creativity and innovation. Overall, this confirms that a combination of effective leadership and strong organizational commitment drives improvements in employee performance.

Based on the research findings and conclusions, the following recommendations are offered:

1. For PT PLN (Persero) UP3 Medan Utara
The company is advised to enhance the application of Neuroleadership by offering more open recognition or appreciation to employees for their work contributions. Additionally, the company could provide guidance and training on decision-making, managing work pressure, and strengthening the relationship between leadership and employees.
2. For Employees
Employees are encouraged to show greater initiative in their work, such as actively proposing new ideas or solutions to support their tasks. They are also expected to maintain and reinforce their sense of responsibility and moral awareness, enabling them to deliver optimal work results even when facing pressure or difficulties on the job.
3. For Future Researchers
Future researchers could expand the scope of the study by including a broader range of subjects and a larger number of respondents, as well as incorporating variables beyond Neuroleadership and Organizational Commitment. This would allow the research findings to provide a more comprehensive overview of the factors influencing employee performance.

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