

THE INFLUENCE OF SELF-EFFICACY AND TRANSFORMATIONAL LEADERSHIP ON EMPLOYEE PERFORMANCE AT PT PERTAMINA (PERSERO) REGIONAL NORTH SUMATRA

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Abstract:

This study aims to analyze the influence of self-efficacy and transformational leadership on employee performance at PT Pertamina (Persero) North Sumatra Region. The study used a quantitative approach with an explanatory design and multiple linear regression analysis techniques. The population was 185 employees with a sample of 126 respondents obtained through the Slovin formula ($e = 5\%$). Data collection was carried out through a 1–5 Likert scale questionnaire, interviews, and documentation. The results showed that self-efficacy had a positive and significant effect on employee performance ($\beta = 0.397$; $p < 0.05$), transformational leadership had a positive and significant effect on employee performance ($\beta = 0.374$; $p < 0.05$), and both simultaneously had a significant effect on employee performance ($F = 43.617$; $p < 0.05$) with a coefficient of determination of 41.2%.

Keywords: Self-Efficacy, Transformational Leadership, Employee Performance, Pertamina, BUMN

Abstrak

Penelitian ini bertujuan untuk menganalisis pengaruh efikasi diri dan kepemimpinan transformasional terhadap kinerja karyawan PT Pertamina (Persero) Regional Sumatera Bagian Utara. Penelitian menggunakan pendekatan kuantitatif dengan desain eksplanatori dan teknik analisis regresi linier berganda. Populasi berjumlah 185 karyawan dengan sampel 126 responden yang diperoleh melalui rumus Slovin ($e = 5\%$). Pengumpulan data dilakukan melalui kuesioner skala Likert 1–5, wawancara, dan dokumentasi. Hasil penelitian menunjukkan bahwa efikasi diri berpengaruh positif dan signifikan terhadap kinerja karyawan ($\beta = 0,397$; $p < 0,05$), kepemimpinan transformasional berpengaruh positif dan signifikan terhadap kinerja karyawan ($\beta = 0,374$; $p < 0,05$), dan secara simultan keduanya berpengaruh signifikan terhadap kinerja karyawan ($F = 43,617$; $p < 0,05$) dengan koefisien determinasi sebesar 41,2%.

Kata Kunci: Efikasi Diri, Kepemimpinan Transformasional, Kinerja Karyawan, Pertamina, BUMN

1. Introduction

PT Pertamina (Persero), as Indonesia's largest national energy company, plays a strategic role in supporting national energy security while realizing Pertamina's vision of Becoming a World-Class Energy Company. Amidst the pressures of the global energy transition, fluctuating world oil prices, and competition with multinational energy companies, the quality of human resources is the backbone of the company's operational sustainability. Pertamina's North Sumatra Region (Sumbagut), which oversees operations in North Sumatra, Aceh, and Riau, is a strategic region that manages upstream and downstream oil and gas assets with high operational complexity (Pertamina Annual Report, 2023).

Problem Phenomenon: Based on 2023 Internal Human Capital data from PT Pertamina Regional Sumbagut, there is an indication of a 12.4% decline in the employee performance index (EPI) in the "initiative and innovation" category compared to the previous year. An initial survey of 40 employees showed that 46.5% felt less confident in their ability to handle the increasing complexity of tasks following Pertamina's corporate structure transformation in 2022 (subholding holding). This condition

indicates low self-efficacy among some employees. Furthermore, 39.2% of respondents stated that their leadership style was not sufficiently inspiring and encouraging of creativity, resulting in a low sense of engagement and high-performance motivation.

Studies on employee performance in state-owned enterprises (SOEs) in the energy sector generally focus on compensation, organizational culture, and training (Hasibuan, 2021; Mangkunegara, 2022). Meanwhile, research explicitly integrating self-efficacy as an internal psychological factor with transformational leadership as an external factor in predicting employee performance in the energy sector—particularly at Pertamina Regional Sumbagut—is still very rare. This is despite the fact that self-efficacy is a strong predictor of individual performance in dynamic and stressful work environments (Bandura, 2022), while transformational leadership has been shown to be effective in encouraging employee commitment and superior performance in organizations undergoing significant change (Bass & Riggio in Yukl, 2023). This literature gap is the primary justification for conducting this study, which aims to provide theoretical contributions and practical implications for HR management at Pertamina Regional Sumbagut.

2. Literature Review

2.1 Self-Efficacy

Self-efficacy is defined as an individual's belief in their capacity to organize and execute the course of action necessary to achieve a specific outcome (Bandura, 2022). High self-efficacy encourages individuals to set more ambitious goals, persist in the face of adversity, and recover more quickly from failure. In an organizational context, self-efficacy influences the quality of decision-making, resilience under work pressure, and the desire to continuously improve competence (Luthans et al., 2023). Indicators of self-efficacy include magnitude, strength, and generality.

2.2 Transformational Leadership

Transformational leadership is a leadership style that inspires followers to transcend personal interests for the collective goals of the organization through four dimensions: idealized influence (charisma), inspirational motivation, intellectual stimulation, and individualized consideration (Bass & Avolio in Yukl, 2023). Transformational leaders create a compelling vision, motivate with meaning, encourage innovation, and develop the unique potential of each individual. This leadership style has proven highly effective in the context of organizations undergoing structural and digital transformation (Northouse, 2022).

2.3 Employee Performance

Employee performance is the quality and quantity of work achieved by an employee in carrying out their duties in accordance with the responsibilities assigned to them (Mangkunegara, 2022). Performance is influenced by individual factors (ability, efficacy, competence) and organizational factors (leadership, culture, resources). Performance measurement in this study refers to the following indicators: work quality, work quantity, timeliness, effectiveness, independence, and commitment (Robbins & Judge, 2023).

2.4 Conceptual Framework and Hypothesis

Hypothesis:

H₁: Self-efficacy has a positive and significant effect on the performance of PT Pertamina Regional Sumbagut employees.

H₂: Transformational leadership has a positive and significant effect on the performance of employees of PT Pertamina Regional Sumbagut.

H₃: Self-efficacy and transformational leadership simultaneously have a positive and significant effect on the performance of PT Pertamina Regional Sumbagut employees.

3. Research Methods

3.1. Types and Approaches of Research

This research uses a quantitative approach with an explanatory research type, which aims to explain the causal relationship between self-efficacy (X_1) and transformational leadership (X_2) on employee performance (Y).

3.2. Location and Time of Research

The research was conducted at PT Pertamina (Persero) North Sumatra Regional Office, located at Jl. Putri Hijau No. 16A, Medan. Data collection took place between March and May 2024.

3.3. Population and Sample

The research population was all 185 permanent employees of PT Pertamina Regional Sumbagut. The sample was determined using the Slovin formula with an error rate (e) of 5%:

$$n = N / (1 + N e^2) = 185 / (1 + 185 \times 0.05^2) = 126 \text{ respondents}$$

The sampling technique used was proportionate stratified random sampling based on work division/function.

3.4. Data Collection Techniques

Data were collected through: (1) Questionnaires using a Likert scale of 1–5 (Strongly Disagree to Strongly Agree); (2) Structured interviews with HR managers and supervisors; (3) Documentation in the form of personnel data, performance reports (KPIs), and company archives.

3.5. Research Variables and Indicators

Table 1. Variables and Indicators

Variables	Dimensions/Indicators	Number of Items
Self-Efficacy (X_1)	Magnitude (level of difficulty of the task), Strength (strength of belief), Generality (breadth of application of the ability)	12 items
Transformational Leadership (X_2)	Idealized influence, Inspirational motivation, Intellectual stimulation, Individualized consideration	16 items
Employee Performance (Y)	Quality of work, Quantity of work, Punctuality, Effectiveness, Independence, Commitment	14 items

3.6. Instrument Testing

- Validity Test: Pearson Product Moment Correlation ($r_{\text{count}} > r_{\text{table}} = 0.175$; valid)
- Reliability Test: Cronbach's Alpha ($\alpha > 0.70$; reliable)
- Classical Assumption Test: Normality (Kolmogorov-Smirnov), Multicollinearity (VIF), Heteroscedasticity (Glejser).

3.7. Data Analysis Techniques

Analysis using multiple linear regression with the model:

$$Y = a + b_1X_1 + b_2X_2 + e$$

Hypothesis testing was conducted using the t-test (partial), F-test (simultaneous), and coefficient of determination (R^2). Data processing used SPSS version 26.

4. Results and Discussion

The results and discussion sections should be presented systematically to explain the research findings and their meaning. Here is a general structure that can be used:

4.1. Respondent Characteristics

Table 2. Profile of Research Respondents

Characteristics	Category	Frequency	Percentage (%)
Gender	Man	91	72.2
	Woman	35	27.8
Age	21–30 years	31	24.6
	31–40 years	54	42.9
	41–50 years	33	26.2
	> 50 years	8	6.3
Education	D3	18	14.3
	S1	88	69.8
	Masters/Doctoral Degree	20	15.9
Years of service	< 5 years	27	21.4
	5–10 years	52	41.3
	11–20 years	35	27.8
	> 20 years	12	9.5

The majority of respondents were male (72.2%), aged 31–40 years (42.9%), had a bachelor's degree (69.8%), and had 5–10 years of service (41.3%). This profile reflects the dominance of productive-age employees with adequate work experience in the technical oil and gas industry.

4.2. Instrument Reliability Test

Table 3. Reliability Test Results

Variables	Cronbach's Alpha	Information
Self-Efficacy (X ₁)	0.864	Reliable
Transformational Leadership (X ₂)	0.891	Reliable
Employee Performance (Y)	0.878	Reliable

All variables have Cronbach's Alpha values well above the threshold of 0.70, so the research instrument is declared reliable and consistent for use in measurement.

4.3. Classical Assumption Test

Table 4. Summary of Classical Assumption Test Results

Test	Method	Results	Information
Normality	Kolmogorov-Smirnov	Sig. = 0.142	Normal (sig. > 0.05)
Multicollinearity	Variance Inflation Factor (VIF)	VIF X ₁ = 1.917; VIF X ₂ = 1.917	No multicollinearity (VIF < 10)
Heteroscedasticity	Glacier Test	Sig. X ₁ = 0.287; Sig. X ₂ = 0.319	There is no heteroscedasticity (sig. > 0.05)

The regression model is stated to fulfill all classical assumptions so that it is suitable for use as an inferential analysis tool in this study.

4.4. Descriptive Statistics of Variables

Table 5. Descriptive Statistics of Research Variables

Variables	N	Min	Max	Mean	Std. Dev	Category
Self-Efficacy (X ₁)	126	2.17	5.00	3.82	0.594	Good
Transformational Leadership (X ₂)	126	2.06	5.00	3.76	0.618	Good
Employee Performance (Y)	126	2.21	5.00	3.88	0.601	Good

The average employee self-efficacy was in the good category (mean = 3.82), transformational leadership was also good (mean = 3.76), and employee performance was good (mean = 3.88). A standard deviation value above 0.5 indicates significant diversity in perceptions among respondents, particularly in the leadership dimension.

4.5. Multiple Linear Regression Analysis

Table 6. Results of Multiple Linear Regression Analysis

Model	Unstd. B	Coeff.	Std. Error	Std. Beta	Coeff.	t count	Sig.
(Constant)	4,873		1,694			2,876	0.005
Self-Efficacy (X ₁)	0.397		0.068	0.397		5,838	0,000
Transformational Leadership (X ₂)	0.374		0.065	0.374		5,754	0,000

Regression Equation:

$$Y = 4.873 + 0.397X_1 + 0.374X_2 + e$$

Interpretation of the equation: (1) The constant 4.873 indicates the value of employee performance if self-efficacy and transformational leadership are zero; (2) The coefficient X₁ = 0.397 means that every one-unit increase in self-efficacy will increase employee performance by 0.397 units; (3) The coefficient X₂ = 0.374 means that every one-unit increase in transformational leadership will increase employee performance by 0.374 units. The coefficient of self-efficacy is greater than that of transformational leadership, indicating that internal psychological factors of employees have a dominant contribution to performance in this context.

4.6. Hypothesis Testing

Table 7. Results of the t-test (Partial)

Variables	t count	t table	Sig.	Decision
Self-Efficacy (X ₁) → Performance (Y)	5,838	1,980	0,000	H ₁ Accepted

Transformational Leadership (X_2) → Performance (Y) 5,754 1,980 0,000 H_2 Accepted

Table 8. F-Test Results (Simultaneous)

Source	F count	F table	Sig.	Decision
Regression ($X_1, X_2 \rightarrow Y$)	43,617	3,072	0,000	H_3 Accepted
Residual				

Table 9. Coefficient of Determination (R^2)

R	R Square	Adjusted R Square	Standard Error of Estimate
0.641	0.412	0.402	0.463

The Adjusted R^2 value of 0.402 indicates that self-efficacy and transformational leadership together explain 40.2% of the variation in employee performance. Meanwhile, 59.8% of the variation in performance is explained by other variables not examined in this study, such as compensation, organizational culture, training, and psychological climate.

4.7. Discussion

H_1 – The Influence of Self-Efficacy on Employee Performance: The t-test results show that self-efficacy has a positive and significant effect on employee performance ($t = 5.838$; $sig. = 0.000 < 0.05$). Employees who have high confidence in their own abilities tend to be more persistent in facing operational challenges, are more courageous in taking initiatives, and are able to manage work pressure adaptively—all of which contribute directly to increased performance output. In the context of Pertamina, which is currently undergoing a holding transformation, self-efficacy is a crucial psychological capital for employees to remain productive amidst structural uncertainty. This finding is consistent with research by Luthans et al. (2023) and Stajkovic & Luthans (in Robbins & Judge, 2023) which confirms self-efficacy as the most consistent predictor of performance in organizational psychology.

H_2 – The Influence of Transformational Leadership on Employee Performance: Transformational leadership has been shown to have a positive and significant impact on employee performance ($t = 5.754$; $sig. = 0.000 < 0.05$). Leaders who are able to articulate an inspiring vision, stimulate innovative thinking, and provide individual attention to subordinates create a work climate that encourages employees to perform beyond minimum expectations. In the Pertamina Regional Sumbagut environment, which manages high-risk, cross-regional technical operations, strong and visionary leadership is crucial for team morale and productivity. These results align with Northouse (2022) and Yukl (2023) who position transformational leadership as one of the most effective leadership styles for improving performance in complex organizations.

H_3 – Simultaneous Effect: Simultaneously, self-efficacy and transformational leadership significantly influence employee performance ($F = 43.617$; $sig. = 0.000 < 0.05$). The interaction between strong self-confidence from within the individual and inspirational direction from the leader creates a synergy that accelerates performance holistically. The managerial implication of this finding is the need for a dual-purpose HR development program: on the one hand, building employee psychological capacity through coaching, mentoring, and self-efficacy-based training; on the other hand, developing transformational leadership competencies for managers and supervisors through a structured leadership development program.

5. Conclusion

H Based on the research results and discussion, the following three main conclusions can be drawn:

First, self-efficacy has a positive and significant impact on employee performance at PT Pertamina (Persero) North Sumatra Regional. The higher an employee's confidence in their own abilities, the higher the quality and quantity of their performance.

Second, transformational leadership has a positive and significant impact on employee performance at PT Pertamina (Persero) North Sumatra Regional. Inspirational, innovative, and individual-development-oriented leaders are able to motivate employees to perform optimally.

Third, self-efficacy and transformational leadership simultaneously have a positive and significant effect on employee performance, contributing 40.2%. The synergy between internal psychological

factors (self-efficacy) and external leadership factors (transformational) has been shown to be a powerful driver of performance in the dynamic oil and gas industry.

This study is limited to regional offices, making it impossible to generalize to all Pertamina business units. Future research is recommended to include mediating variables such as organizational commitment or job satisfaction, and to expand the research scope to all Pertamina subholdings.

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