

The Influence of Transformational Leadership and Physical Work Environment Mediated by Extrinsic Motivation in Improving Employee Performance at the Regional Office of the Ministry of Law and Human Rights, West Nusa Tenggara

Dedy Aryadi¹, Arthur Sitaniapessy², Rismawati³

¹ Pascasarjana, Magister Manajemen, Universitas Terbuka, Nusa Tenggara Barat

² Politeknik Negeri Ambon

³ Universitas Terbuka

Abstract

The purpose of this study is to examine and analyze the influence of transformational leadership and physical work environment on employee performance, mediated by extrinsic motivation, both directly and indirectly, at the Regional Office of the Ministry of Law and Human Rights, West Nusa Tenggara. This research employs a causal approach. The population consists of all employees at the aforementioned Regional Office. The sample is determined using a saturated sampling technique involving 87 employees, with 80 valid responses analyzed. Data collection techniques include documentation, observation, and questionnaires. The data analysis uses a quantitative approach through statistical methods, including Outer Model Analysis, Inner Model Analysis, and Hypothesis Testing. Data processing is conducted using the PLS (Partial Least Square) software. The results show that transformational leadership has a significant direct effect on employee performance, the physical work environment has a significant effect on employee performance, and extrinsic motivation significantly influences employee performance. Additionally, transformational leadership and the physical work environment significantly affect extrinsic motivation. However, extrinsic motivation does not mediate the relationship between transformational leadership and employee performance, nor does it mediate the relationship between the physical work environment and employee performance at the Regional Office of the Ministry of Law and Human Rights, West Nusa Tenggara.

Keywords: Transformational Leadership, Physical Work Environment, Extrinsic Motivation, Employee Performance



INTRODUCTION

Background

Human Resources (HR) are a vital element in any organization. Therefore, enhancing the capacity of human resources is essential for the advancement of an organization. Proper and targeted management is key to developing human resources within an effective environment. According to Jahri (2021), companies must manage and support the performance of their human capital. Good employee performance outputs will enable the achievement of organizational goals effectively and efficiently. Performance is the result of work achieved by an individual or a group within an organization in accordance with their respective authority and responsibilities, aimed at achieving organizational goals in a legal manner, without violating the law, and in line with norms and ethics (Jufrizen, 2017). Employees are expected to perform in a way that meets or exceeds the expectations of all stakeholders, especially the public. Performance involves carrying out and completing tasks and responsibilities in line with predetermined expectations and goals (Supardi, 2016). Furthermore, employee performance can also be interpreted as the result of one's efforts achieved through ability and actions in a specific context.

Employee performance directly impacts the progress or decline of an organization. It reflects employees' ability to execute their duties and achieve predetermined targets. A decline in performance often results in suboptimal service delivery. This decline can be influenced by various factors such as leadership, work motivation, and work environment.

Every organization must be responsive to environmental changes to survive and adapt quickly in the current era of globalization. Hence, to achieve collective organizational goals, it is necessary to manage and organize human resource performance effectively. By maintaining optimal HR performance, the organization's sustainability can be better preserved. According to Armstrong and Baron (Sahir et al., 2023), several factors influence performance: (1) personal aspects including talent level, competence, motivation, and individual dedication; (2) leadership characteristics measured by managerial effectiveness in providing support, encouragement, and advice; and (3) team dynamics as seen through colleague support and the work environment.

One factor influencing performance is leadership. A competent leader must possess strong leadership, planning abilities, and a broad understanding of the organization. Key leadership capabilities include effective communication and problem-solving skills, allowing leaders to easily convey ideas and suggestions to subordinates. Therefore, leaders must set an example, provide guidance, and effectively manage their leadership functions.



These points align with previous studies such as Aisyaturrido et al. (2021), who found that leadership and work environment directly influence job satisfaction, and also indirectly through motivation. Matsani (2023) emphasized the importance of effective leadership, intrinsic motivation, and a conducive work environment in improving employee performance. In contrast, research by Sitti Zubaedah and Joko Prasetyo (2023) concluded that although leadership and motivation had a positive effect, they were not statistically significant in influencing nurse performance.

Oluseyi and Ayo (2009) defined leadership as a leader's effort to influence followers so that they are willing to perform activities to achieve specific goals, shaped by shared values, motivation, needs, aspirations, and expectations. Leadership is thus a purposeful act of influencing group members' activities to achieve common goals, providing mutual benefits for individuals and the organization (Rivai & Mulyadi, 2013).

Leadership is strongly associated with employee performance. A leader's success in motivating others to achieve organizational goals depends heavily on their authority and ability to instill enthusiasm in subordinates, colleagues, and even superiors, in line with McGregor's (1983) behavioral leadership theory.

In addition to leadership, the work environment is also a determining factor of employee performance. It plays a crucial role in promoting discipline. An unsupportive work environment can affect employees' comfort and disrupt their discipline.

The work environment includes everything surrounding employees while they work, whether physical or non-physical, directly or indirectly, and can influence both the employees and their work (Logahan et al., 2012). It is typically divided into physical and non-physical components. Physical work environment refers to tangible aspects such as infrastructure, while non-physical work environment refers to interpersonal dynamics such as relationships with superiors and colleagues. These findings are supported by prior research (Aisyaturrido et al., 2021; Matsani, 2023; Sitti Zubaedah & Joko Prasetyo, 2023), which confirmed that the work environment has a significant and positive direct effect on performance. However, Qomariah et al. (2022) found that the work environment has a negative indirect effect on performance.

Besides leadership and work environment, employee motivation is another factor that significantly affects performance levels. Human resource discussions inherently involve employee motivation. Although leadership plays a major role in motivating employees, various other factors also contribute to it.



Improved employee satisfaction is often linked to increased motivation. A good work environment also significantly influences employee performance (Hanafi & Yohana, 2017). Employee satisfaction increases in correlation with motivational factors, which are closely related to their performance. Employees tend to perform better when they are motivated to complete tasks and serve the public effectively. According to Lie and Siagian (2018), higher work motivation enhances performance in terms of quality, quantity, timeliness, effectiveness, and independence. A successful institution relies on creating a comfortable and growth-oriented work environment that enables employees to maximize their potential and performance.

Motivation arises when an individual feels that their needs or desires are being met, leading to increased enthusiasm for their work. When both material and non-material needs are fulfilled, employee morale increases. The more appropriate the motivation provided by leaders, the better the employees perform. Conversely, low motivation can result in poor performance, ultimately affecting organizational success.

In public institutions, achieving set objectives requires the support of human resources. Therefore, human resource management must be geared toward fulfilling institutional goals. This is supported by research from Fahad Bati Al Marshoudi and Zaharuzaman (2023), as well as Suparman et al. (2021), which found a positive and significant relationship between motivation and performance. However, Choiriyah et al. (2021) argued that motivation does not significantly influence employee performance.

Based on the discussion above, transformational leadership, physical work environment, and extrinsic motivation must be given due attention to improve employee performance at the Regional Office of the Ministry of Law and Human Rights, West Nusa Tenggara. Therefore, the researcher is interested in conducting a study titled: "The Influence of Transformational Leadership and Physical Work Environment Mediated by Extrinsic Motivation on Improving Employee Performance at the Regional Office of the Ministry of Law and Human Rights, West Nusa Tenggara." The research is specifically conducted at Technical Implementation Units (UPT) of Correctional Institutions (Lapas) and State Detention Centers (Rutan) under the Regional Office.

Theoretical Framework

Transformational Leadership

Transformational leadership is a leadership theory that emphasizes that a leader not only focuses on their own interests but also works with team members or followers to recognize necessary



changes. They create a vision to guide the change through influence, encouragement, and joint implementation with committed group members. By shifting focus from personal interests, transformational leaders succeed in enhancing the maturity and mindset of their followers while inspiring them to achieve collective goals. Essentially, transformational leadership seeks to alter followers' perspectives and attitudes not only for personal gain but also for the betterment of the group or organization. This leadership style has proven highly effective in motivating and inspiring individuals to improve their performance and accomplishments.

According to Robbins (2017, p. 262), transformational leadership is a leadership style that motivates followers to manage their interests in favor of organizational goals through individual consideration, intellectual stimulation, and idealized influence, resulting in extra effort toward greater organizational effectiveness.

Rothwell, Stavros, and Sullivan (2016, p. 95) define transformational leadership as a leadership style that transforms followers to rise above self-interest and challenges them to pursue collective goals. Suwatno (2019, p. 107) further states that transformational leadership influences employees to develop confidence, pride, loyalty, and respect for their leader, along with motivation to exceed expectations. In conclusion, transformational leadership is a leadership style that transforms, influences, and guides team members to not only prioritize personal interests but also commit to organizational goals with confidence, ownership, loyalty, and pride in the organization.

Work Environment

The work environment in a company must be taken seriously, as it directly affects employees. A conducive work environment can enhance employee performance, whereas an inadequate one may hinder it. A good work environment allows employees to work optimally, healthily, safely, and comfortably. The long-term effects of the work environment are also important, as poor conditions can require more time and energy and impede the design of efficient work systems. According to Sedarmayanti (2017), the work environment includes all tools, materials, the surrounding physical and social conditions, work methods, and organizational settings faced by employees, both individually and in groups. Hasibuan (2016) defines it as everything surrounding workers that may influence their performance.

Mangkunegara (2014) includes aspects such as clear job descriptions, challenging work targets, effective communication patterns, and a supportive work climate and facilities. According to



Nitisemito (2017), the work environment encompasses all conditions around employees that affect their task execution.

Sarwoto in Sedarmayanti (2017) divides the work environment into two: (1) Physical Work Environment — all physical conditions around the workplace that may directly or indirectly affect employees, and (2) Non-Physical Work Environment — all interpersonal relationships between colleagues, superiors, and subordinates.

A supportive work environment boosts job discipline and performance, enabling employees to fulfill tasks responsibly. Conversely, an unsatisfactory environment can increase errors due to tension and discomfort. Sedarmayanti (2017) lists several factors that influence work conditions, including: 1) Lighting; 2) Temperature; 3) Humidity; 4) Air circulation; 5) Noise; 6) Odors; 7) Color scheme; 8) Decoration; 9) Music; and 10) Safety.

Extrinsic Motivation

Properly motivated employees will voluntarily work better and provide maximum productivity for organizational advancement. Motivation is the mechanism by which an employee's needs are fulfilled, prompting effort toward achieving organizational goals.

Not all employees are intrinsically motivated. Some require external stimuli such as compensation or recognition to boost performance. Many employees work not for pleasure but to sustain their livelihoods. Higher rewards, such as better salaries, can motivate them to perform better. Extrinsic motivation becomes crucial when employees face difficult or unappealing tasks. Though such work may be naturally avoided, attractive incentives can encourage employees to engage. According to Nawawi (2011, p. 351), motivation is a condition that drives individuals to act consciously. Herzberg's Two-Factor Theory (Robbins, 2007, p. 133) identifies intrinsic motivators (linked to job satisfaction) and hygiene factors (extrinsic motivators) that influence different aspects of job satisfaction.

In essence, motivation is based on the principle that individuals engage in tasks they enjoy, but under certain circumstances, they may also undertake tasks they dislike due to external demands or incentives.



Employee Performance

Performance refers to the utilization of one's abilities to achieve desired outcomes. A progressive organization must have high-quality employees — those who meet or exceed established targets.

Mangkuprawira (2014) defines performance as the outcome of specific tasks completed by employees within a defined timeframe and setting. Mangkunegara (2014) emphasizes the quality and quantity of work as core indicators of performance.

The public increasingly scrutinizes organizational performance due to growing democratic and transparency demands. Historically, performance has been difficult to measure objectively due to the absence of proper performance evaluation systems.

According to Nooralizad et al. (2011), performance is a visible result tied to organizational goals. Achieving high performance depends on human resource quality. Rivai (2012) defines performance as the result or level of success achieved over a certain period, compared to established standards or goals.

Susanto (2017) explains performance as the result of tasks completed legally, ethically, and according to an individual's authority and responsibility.

Wibowo (2014) sees performance as both a process and an outcome of work efforts. Kasmir (2016) defines it as results achieved in fulfilling duties and responsibilities during a specific period.

Mulyadi (2015) describes it as the quality and quantity of work aligned with responsibilities. Fahmi (2016) notes that performance outcomes apply to both profit and nonprofit organizations. Armstrong and Baron argue that performance is linked to strategic objectives, customer satisfaction, and economic contributions.

In summary, employee performance is the work result (in quantity and quality) achieved while fulfilling job functions based on assigned responsibilities.

Research Methodology

This study adopts a **quantitative research approach**, in which the selected theory is tested, and the causal relationships among variables are analyzed. According to Sugiyono (2018), this type of research seeks to explain hypotheses about the effects of variables such as transformational leadership, physical work environment, and extrinsic motivation on employee performance.



According to Sugiyono (2018), the **population** is defined as a generalization area consisting of objects or subjects with specific characteristics and qualities determined by the researcher to be studied and concluded. The population of this study consists of **675 employees** within the Regional Office of the Ministry of Law and Human Rights, West Nusa Tenggara.

Sampling is the method of data collection in research. Sugiyono (2017, p. 82) defines sampling technique as the method used to select samples. There are two sampling techniques: **Probability Sampling** and **Non-Probability Sampling**.

In this study, the researcher employed **Probability Sampling** as the sampling technique, using **Slovin's formula** to determine the sample size. Subsequently, the researcher applied the **Proportional Stratified Random Sampling** technique, which can be explained as follows:

$$n = \frac{N}{(1 + (N)(e)^2)}$$

Explanation:

- n = Sample size
- N = Population size
- e = Margin of error (Confidence level) (10% = 0.1)

Thus, the sample size is calculated as follows:

$$N = \frac{675}{1 + (675)(0,1)^2}$$

$$N = \frac{675}{1 + 675(0.01)}$$

$$N = \frac{675}{1 + 6,75}$$

$$N = 87$$



In the distribution of research instruments to all Correctional Institutions (Lapas) and State Detention Centers (Rutan) in West Nusa Tenggara Province, a total of 675 potential respondents were targeted. After applying **Slovin's formula**, the sample size was determined to be **87 respondents**. However, in practice, several challenges emerged during data collection, including incomplete returns, loss of instruments, and missing responses. As a result, only **80 valid responses** were obtained and analyzed, out of the initial sample size of 87.

The collected data were analyzed using a **quantitative approach** through statistical analysis employing the **Partial Least Squares** – **Structural Equation Modeling (PLS-SEM)** technique. This method aims to conduct **path analysis** involving latent variables and is widely referred to as the **second generation of multivariate analysis** (Ghozali & Latan, 2015). PLS-SEM allows for simultaneous testing of both **measurement models** (to assess validity and reliability) and **structural models** (to examine causal relationships and hypothesis testing through predictive modeling).

Results and Discussion

Respondent Characteristics

Respondent characteristics provide a profile of the individuals participating in this study, including their gender, age range, and education level. The analysis was based on **80 respondents** from Lapas and Rutan in West Nusa Tenggara Province.

- Based on gender, 44 respondents (55%) were male and 36 respondents (45%) were female.
- Based on age, 24 respondents (30%) were aged 25–39 years, while 56 respondents (70%) were aged 40–55 years.
- Based on education level, the majority of respondents held a Bachelor's degree (S1), totaling
 43 individuals (53.8%).

Validity Test

Convergent validity refers to the principle that indicators (manifest variables) of a construct should be highly correlated. It is assessed based on the **loading factors** and the **Average Variance Extracted** (**AVE**) values.

The rule of thumb for convergent validity is that loading factors should exceed 0.50 and AVE values should also exceed 0.50 (Ghozali & Latan, 2015). The AVE results are presented in Table 4.7 as follows:



Table 4.7
Results of Average Variance Extracted (AVE)

Variable / Construct	AVE	Test Result
Transformational Leadership (X1)	0.632	Valid
Physical Work Environment (X2)	0.636	Valid
Extrinsic Work Motivation (Z)	0.517	Valid
Employee Performance (Y)	0.642	Valid

Source: Processed data, 2024

Based on **Table 4.7**, it can be seen that the **AVE values** for all variables are greater than **0.5**. Therefore, it can be concluded that the variables or constructs used in this study are **valid**.

Reliability Test

Reliability testing is used to measure the **internal consistency** of an instrument. Reliability reflects the **accuracy, consistency, and precision** of a measurement tool. In PLS analysis, reliability can be assessed using two methods: **Cronbach's Alpha** and **Composite Reliability**.

- Cronbach's Alpha evaluates the lower bound of reliability for a construct.
- Composite Reliability provides a more accurate measure of the true reliability of the construct.

According to the **rule of thumb**, a construct is considered reliable if:

- The Composite Reliability (CR) value is greater than 0.6,
- And the **Cronbach's Alpha** value also exceeds **0.6**.

If both values are above 0.60, the construct is deemed to have **acceptable reliability**. The results of the reliability tests using both methods are presented in the following table:

Table 4.8
Reliability Test Results

Variable / Construct	Cronbach's Alpha	Composite Reliability	Test Result
Transformational Leadership (X1)	0.917	0.60	Reliable
Physical Work Environment (X2)	0.926	0.60	Reliable
Extrinsic Work Motivation (Z)	0.913	0.60	Reliable
Employee Performance (Y)	0.920	0.60	Reliable

Source: Processed data, 2024



Based on the data processing results, as presented in **Table 4.8**, it can be seen that each research variable has both **Cronbach's Alpha** and **Composite Reliability** values **greater than 0.60**. Therefore, it can be concluded that **all variables used in this study are reliable**.

Inner Model Analysis

The **R-square** (**R**²) value represents the proportion of variance in the **endogenous variable** that can be explained by the **exogenous variables**. It is used to evaluate the **predictive power** and overall **goodness of fit** of the structural model.

According to Juliandi (2018), an R-square value of:

- 0.75 indicates a substantial model,
- **0.50** indicates a **moderate** model,
- 0.25 indicates a weak model.

Based on the processed data, analysis was conducted using the **SmartPLS 3.0 software**, from which the **R-square values** were obtained. These values are presented in the following figure and table:

Table 4.9 R-Square Test Results

Variable	R Square	Adjusted R Square
Y (Employee Performance)	0.907	0.897
Z (Extrinsic Motivation)	0.779	0.764

Source: Processed data, 2024

Based on **Table 4.9**, it can be concluded that there is an influence of **X1** (**Transformational Leadership**), **X2** (**Physical Work Environment**), and **Z** (**Extrinsic Motivation**) on **Y** (**Employee Performance**), with an **R-square value of 0.907**. This indicates that **90.7%** of the variance in **employee performance** can be explained by variations in X1, X2, and Z. In other words, the model has **substantial predictive power**, while the remaining **9.3%** is influenced by other variables not included in this study.

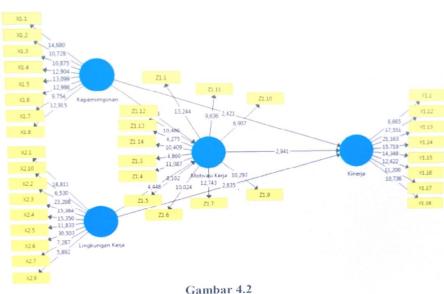
Furthermore, the **R-square value for Z** (Extrinsic Motivation) is **0.779**, indicating that **77.9%** of the variance in extrinsic motivation is explained by **X1** and **X2**, again reflecting a **substantial model**. The remaining **22.1%** is influenced by factors not examined in this research.

Hypothesis Testing

The purpose of hypothesis testing in this study is to determine the **path coefficients** in the structural model, which are used to assess the **significance** of all relationships and to test the proposed hypotheses. Hypothesis testing in this research is categorized into **direct** and **indirect effects**.



Accordingly, based on data processing using **SmartPLS 3.0**, the hypothesis testing results are presented in the form of a **path coefficient diagram**, illustrating both direct and indirect effects, as shown in the following figure:



Gambar 4.2
Path Coefficient

Hypothesis Testing - Direct Effects

The results of the hypothesis testing for direct effects are presented in the following path coefficient table:

Tabel 4.10
Path Coefficient

Tuth Collician					
	Original	Sample	Standar	T Statistics	P Values
	Sample	Mean (M)	Error	(/O/STERR)	
	(O)		(STERR)		
$X1 \rightarrow Y$	0,258	0,258	0,117	2,423	0.017
$X2 \rightarrow Y$	0,343	0,358	0,121	2,837	0.005
$Z \rightarrow Y$	0,417	0,419	0,145	2,943	0.004
$X1 \rightarrow Z$	0,295	0,329	0,138	2,119	0.036
$X2 \rightarrow Z$	0,639	0,629	0,143	4,447	0.000

Sumber: PLS 3.00

Interpretation:

- X1 (Transformational Leadership) \rightarrow Y (Employee Performance): Significant (T = 2.423 > 1.96; P = 0.017 < 0.05)
- **X2 (Physical Work Environment)** \rightarrow **Y:** Significant (T = 2.837; P = 0.005)
- **Z** (Extrinsic Motivation) \rightarrow Y: Significant (T = 2.943; P = 0.004)
- **X1** \rightarrow **Z**: Significant (T = 2.119; P = 0.036)
- $X2 \rightarrow Z$: Highly significant (T = 4.447; P = 0.000)

Thus, all five direct effect hypotheses are supported, as the T-statistics exceed 1.96 and the P-values are below 0.05.



Based on the data presented in the table above, the direct hypothesis testing results can be interpreted as follows:

- 1. The influence of transformational leadership on employee performance shows a path coefficient of **0.258** with a **p-value of 0.017** < **0.05**, indicating that transformational leadership has a **significant positive effect** on employee performance at the Regional Office of the Ministry of Law and Human Rights, West Nusa Tenggara.
- 2. The influence of transformational leadership on extrinsic work motivation shows a path coefficient of 0.295 with a p-value of 0.036 < 0.05, which means that transformational leadership significantly affects the extrinsic motivation of employees at the same institution.
- 3. The influence of the physical work environment on employee performance shows a path coefficient of **0.343** with a **p-value of 0.005** < **0.05**, indicating that the physical work environment has a **significant effect** on employee performance at the Regional Office of the Ministry of Law and Human Rights, West Nusa Tenggara.
- 4. The influence of the physical work environment on extrinsic work motivation shows a path coefficient of 0.639 with a p-value of 0.000 < 0.05, which means that the physical work environment has a strong and significant influence on the extrinsic motivation of employees.
- 5. The influence of extrinsic work motivation on employee performance shows a path coefficient of **0.417** with a **p-value of 0.004** < **0.05**, indicating that extrinsic motivation has a **significant positive effect** on employee performance at the Regional Office of the Ministry of Law and Human Rights, West Nusa Tenggara.

Indirect Effects Hypothesis Testing

The **indirect effects** between the independent variables and the dependent variable in this study are presented as follows:

Tabel 4.11 Specific Indirect Effects

	F ************************************				
	Original Sample (O)	Sample Mean (M)	Standar Deviation (STDEV)	T Statistics (/O/STERR)	P Values
$X1 \rightarrow Z \rightarrow Y$	0.124	0.138	0.089	2,418	0.038
$X1 \rightarrow Z \rightarrow Y$	0.267	0.244	0.087	3,147	0.003

Sumber: PLS 3.00

Based on the table presented above, the results of the **indirect effect hypothesis testing** can be explained as follows:

- 1. The indirect effect of transformational leadership on employee performance through extrinsic work motivation shows a path coefficient of 0.124, with a p-value of 0.038 < 0.05. This indicates that transformational leadership has a significant indirect influence on employee performance through extrinsic motivation at the Regional Office of the Ministry of Law and Human Rights, West Nusa Tenggara.
- 2. The indirect effect of the physical work environment on employee performance through extrinsic work motivation shows a path coefficient of 0.267, with a p-value of 0.003 < 0.05.



This means that the physical work environment has a **significant indirect effect** on employee performance **through extrinsic motivation** at the same institution.

Indirect Effect Analysis

The analysis of indirect effects evaluates the **mediating role** of extrinsic motivation in the relationship between the independent variables (transformational leadership and physical work environment) and the dependent variable (employee performance). The significance of these effects confirms that **extrinsic motivation acts as a mediator**, strengthening the influence of both leadership and work environment on performance outcomes.

Tabel 4.12 Pengujian Statistik Langsung dan Tidak langsung

Variabel	Tstatistik Direct	T _{statistik} Indirect
$X1 \rightarrow Y$	2,423	
$X1 \rightarrow Z \rightarrow Y$		2,429
X2 → Y	2,845	
$X2 \rightarrow Z \rightarrow Y$		3,147

Sumber data telah diolah 2024

Conclusion Drawing from Table 4.12

- 1. The direct effect of transformational leadership on employee performance $(X1 \rightarrow Y)$ has a T-statistic value of 2.423, while the indirect effect via extrinsic motivation $(X1 \rightarrow Z \rightarrow Y)$ has a T-statistic of 2.429.
 - Conclusion Rule:
 - If the T-statistic for the indirect effect is **greater than** the direct effect, the mediator variable (**Z**) is considered an **intervening variable**—the real effect is indirect.
 - If the T-statistic for the indirect effect is **less than** the direct effect, the variable is **not** an intervening variable—the dominant effect is direct.
 - Conclusion: Since 2.429 < 2.423 is not true, the direct effect is stronger. Therefore, transformational leadership (X1) influences employee performance (Y) directly, and extrinsic motivation (Z) does not act as an intervening variable.
- 2. The direct effect of physical work environment on employee performance $(X2 \rightarrow Y)$ has a T-statistic of 2.845, while the indirect effect $(X2 \rightarrow Z \rightarrow Y)$ has a T-statistic of 3.147.
 - **o** Conclusion Rule:
 - If the indirect effect's T-statistic is **greater than** the direct effect, then **Z** is an intervening variable—the dominant effect is indirect.
 - Conclusion: Since 3.147 > 2.845, the indirect effect is stronger. Thus, the physical work environment (X2) affects employee performance (Y) through extrinsic motivation (Z), meaning that Z functions as an intervening variable.



Effect of Transformational Leadership on Employee Performance

The hypothesis test shows that transformational leadership has a positive and significant influence on employee performance, with a path coefficient of 0.258 and p-value of 0.017 (< 0.05). The T-statistic of 2.423 > 1.96 supports the rejection of H₀ and the acceptance of H_a.

This finding is reflected in real conditions at Correctional Facilities (Lapas) and State Detention Centers (Rutan) under the Regional Office, where leadership closeness fosters fast conflict resolution, annual family gatherings strengthen team bonds, and spiritual and emotional well-being are cultivated.

This result is consistent with previous research by Aisyaturrido et al. (2021) and Matsani (2023), who found leadership and work environment significantly influence satisfaction and performance. However, it differs from Alvin Arifin (2022), who found **no significant effect** of leadership style on employee performance.

Effect of Physical Work Environment on Employee Performance

The physical work environment significantly influences performance, with a path coefficient of 0.341, p-value = 0.005, and T-statistic = 2.845 > 1.96, confirming H₀ rejection and H_a acceptance.

Employees feel motivated when the physical layout is spacious and well-lit, air circulation is adequate, and workplace safety is ensured. This result aligns with studies by Arifin (2022), Zubaedah & Prasetyo (2023), and Matsani (2023), though it contrasts with Arifin's conclusion on leadership.

Effect of Extrinsic Motivation on Employee Performance

Extrinsic motivation has a significant effect on performance (path coefficient = 0.417, p-value = 0.005, T-statistic = 2.943 > 1.96).

In practice, motivation arises from task collaboration, team dynamics, safety, break policies, and shared understanding. Consistent with Irawan et al. (2020), Zubaedah & Prasetyo (2023), and Matsani (2023), but differs from Suparman et al. (2021) and Choiriyah et al. (2021), who found **no significant impact**.

Effect of Transformational Leadership on Extrinsic Motivation

Transformational leadership significantly influences extrinsic motivation (path coefficient = 0.295, p-value = 0.036, T-statistic = 2.119 > 1.96).

This is observed in organizational communication practices. Leaders in the Regional Office are attentive and provide consistent feedback, fostering trust and morale. Supported by research from Aisyaturrido et al. (2021) and Zubaedah & Prasetyo (2023), confirming leadership's role in motivating employees.



Effect of Physical Work Environment on Extrinsic Motivation

The physical work environment has a **significant effect** on extrinsic motivation (**path coefficient** = 0.639, **p-value** = 0.000, **T-statistic** = 4.447 > 1.96).

Good facilities and supportive surroundings increase employee drive, especially when needs such as achievement, relationships, and growth are fulfilled. Supported by Aisyaturrido et al. (2021) and Sedarmayanti (2017), who highlight the positive effect of physical environments on motivation and performance.

Effect of Transformational Leadership on Employee Performance Mediated by Extrinsic Motivation

Although the indirect effect is statistically significant (path coefficient = 0.124, p-value = 0.038, T-statistic = 2.418 > 1.96), it is weaker than the direct effect. Thus, extrinsic motivation does not serve as a true mediator, and the dominant effect is direct.

This is reflected in leadership behavior—motivating, advising, and acknowledging employee contributions consistently. Leaders at the Regional Office demonstrate individual concern and fair treatment, encouraging employee engagement.

Effect of Physical Work Environment on Employee Performance Mediated by Extrinsic Motivation

This indirect effect is significant and stronger than the direct effect, with a path coefficient of 0.267, p-value = 0.003, and T-statistic = 3.147 > 1.96.

A well-designed work environment (tools, layout, and safety) boosts extrinsic motivation and drives performance improvements in quality and efficiency.

Conclusions and Suggestions

Conclusions:

Based on the findings and analysis, the following conclusions can be drawn:

- Transformational leadership directly and significantly affects employee performance.
- **Physical work environment** directly and significantly affects employee performance.
- Extrinsic motivation has a significant impact on employee performance.
- Transformational leadership and physical work environment significantly influence extrinsic motivation.
- **Indirectly**, extrinsic motivation **does not mediate** the effect of transformational leadership on performance.
- Extrinsic motivation partially mediates the relationship between physical work environment and performance.



Suggestions:

This study focused only on **transformational leadership**, **physical work environment**, and **extrinsic motivation**. Future research should consider other factors such as **intrinsic motivation**, **organizational culture**, and **job satisfaction**, which may offer broader insights into improving employee performance.

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