Organizational Factors Affecting Employee Loyalty

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Abstract

This study aims to analyze the effect of leadership style and work environment on employee loyalty through job satisfaction at PT PLN (Persero) UP2D North Sumatra. This research employs a quantitative approach using a survey method. Data were collected through questionnaires distributed to employees and analyzed using Partial Least Squares–Structural Equation Modeling (PLS-SEM). The results show that leadership style and work environment have a positive and significant effect on job satisfaction. Job satisfaction and work environment also have a positive and significant effect on employee loyalty. However, leadership style does not have a significant direct effect on employee loyalty. Furthermore, the indirect effect analysis indicates that job satisfaction mediates the relationship between leadership style and work environment on employee loyalty. Based on these findings, it can be concluded that job satisfaction plays a crucial role in enhancing employee loyalty. Therefore, PT PLN (Persero) UP2D North Sumatra is encouraged to improve leadership quality and create a supportive work environment to increase employee satisfaction and loyalty.

Keywords: Leadership Style, Work Environment, Job Satisfaction, Employee Loyalty.

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Introduction

In an era of increasingly fierce global competition, an organization's success is not only determined by the availability of technology and capital, but also by the organization's ability to manage and retain competent and loyal employees. Building employee loyalty has become a key priority for organizations. Employees may show symptoms such as lack of enthusiasm for work, increased absenteeism, declining productivity, and even a desire to move to another workplace. Leadership style is a key factor influencing employee behavior and attitudes at work. Good leadership is not only oriented towards achieving organizational targets, but also pays attention to employee welfare, needs, and development. Leaders who are able to provide inspiration, motivation, and guidance to their subordinates will foster a sense of belonging and commitment to the organization. Conversely, authoritarian, closed, or non-communicative leadership styles can lead to dissatisfaction and even reduce employee loyalty. A conducive work environment creates a comfortable work atmosphere, harmonious relationships between employees, and adequate physical facility support. A positive work environment can boost work spirit, reduce stress, and foster a sense of security at work. An unsupportive work environment can make employees feel uncomfortable, lose motivation, and ultimately decrease loyalty to the company. Job satisfaction reflects the extent to which employees feel happy and satisfied with the work they do, including compensation, working conditions, career opportunities, and interpersonal relationships. Employees who are satisfied with their jobs tend to show positive attitudes, be responsible, and have a strong desire to remain with the organization. Conversely, if job satisfaction is low, employees will easily experience boredom, dissatisfaction, and ultimately, it will impact decreasing loyalty.

Problem Formulation

1. Does leadership style have a positive and significant effect on employee loyalty at PT PLN (Persero) UP2D North Sumatra?
2. Does work environment have a positive and significant effect on employee loyalty at PT PLN (Persero) UP2D North Sumatra?
3. Does leadership style have a positive and significant effect on job satisfaction at PT PLN (Persero) UP2D North Sumatra?
4. Does work environment have a positive and significant effect on job satisfaction at PT PLN (Persero) UP2D North Sumatra?
5. Does job satisfaction have a positive and significant effect on employee loyalty at PT PLN (Persero) UP2D North Sumatra?
6. Does leadership style have a positive and significant effect on employee loyalty through job satisfaction at PT PLN (Persero) UP2D North Sumatra?
7. Does work environment have a positive and significant effect on employee loyalty through job satisfaction at PT PLN (Persero) UP2D North Sumatra?

Research Objectives

1. To test and analyze the effect of leadership style on employee loyalty at PT PLN (Persero) UP2D North Sumatra.
2. To test and analyze the effect of work environment on employee loyalty at PT PLN (Persero) UP2D North Sumatra.
3. To test and analyze the effect of leadership style on employee job satisfaction at PT PLN (Persero) UP2D North Sumatra.
4. To test and analyze the effect of work environment on employee job satisfaction at PT PLN (Persero) UP2D North Sumatra.
5. To test and analyze the effect of job satisfaction on employee loyalty at PT PLN (Persero) UP2D North Sumatra.
6. To test and analyze the effect of leadership style on employee loyalty through job satisfaction at PT PLN (Persero) UP2D North Sumatra.

7. To test and analyze the effect of work environment on employee loyalty through job satisfaction at PT PLN (Persero) UP2D North Sumatra.

Employee Loyalty

According to Iskandar & Yuhansyah (2018), loyalty is an employee's faithfulness to the institution where they work, encompassing loyalty to the position, job, and organization. An employee must always faithfully defend the institution's interests under any conditions. According to Ardial (2018), work loyalty can be defined as how an employee consciously dedicates their service to the company or organization according to the scope of their position, obeys and follows their superiors, and performs their duties to the best of their ability.

Indicators of Employee Loyalty

According to Ardial (2018):
1. Obedience.
2. Responsibility
3. Dedication
4. Honesty

Factors Influencing Employee Loyalty

According to Ardial (2018) in his research on work behavior and employee motivation, loyalty is a form of employee devotion reflected in the willingness to work with full responsibility, discipline, and a sense of belonging to the organization. Employee loyalty can be influenced by several main factors, namely:
1. Work Motivation Employees with a strong drive to achieve and contribute to the organization tend to show high loyalty.
2. Leadership, Fair, exemplary, and caring leadership attitudes towards subordinates can foster respect and loyalty among employees.
3. Work Discipline, Good discipline shows an employee's commitment to rules and organizational goals, reflecting work loyalty.
4. Job Satisfaction, When employees feel satisfied with compensation, work environment, and relationships with colleagues and superiors, their level of loyalty increases.
5. Work Environment, Comfortable, safe, and collaborative working conditions will create a sense of comfort and a desire to stay in the organization.
6. Recognition and Appreciation, Rewarding employee achievements and contributions makes them feel valued and fosters loyalty to the organization.

Leadership Style

According to Zaharuddin (2021), leadership style is the behavior or method chosen and used by a leader to influence the thoughts, feelings, attitudes, and behavior of their organization. According to Rakhma et al. (2022), leadership style is a pattern of behavior designed to influence subordinates so they can maximize their performance, thereby maximizing organizational performance and goals, as well as motivating employees, which is expected to result in high productivity.

Indicators of Leadership Style

According to Zaharuddin (2021), indicators of leadership style are:
1. Decision-Making Ability
2. Motivational Ability
3. Communication Ability
4. Ability to Control Subordinates
5. Responsibility

Work Environment

According to Schultz (2019), the work environment or conditions refer to all aspects of physical work, psychological work, and work regulations that can affect job satisfaction and work productivity. According to Saputra (2021), the work environment is the social, psychological, and physical life within a company that greatly influences employees in carrying out their duties.

Indicators of Work Environment

According to Schultz & Schultz (2016), work environment indicators can be grouped into three main categories:
1. Physical Work Environment
2. Psychological Work Environment
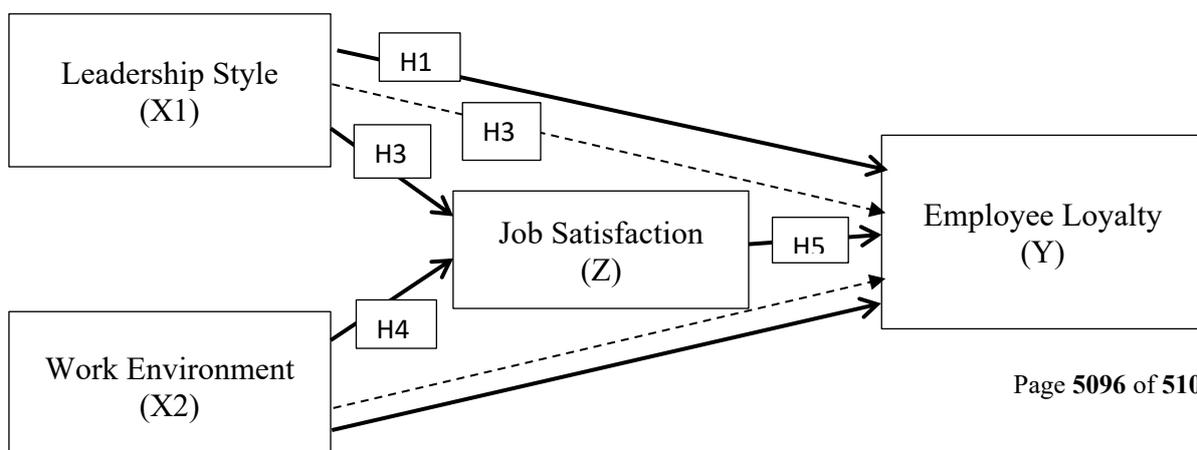3. Social Work Environment

Job Satisfaction

According to Bhastary (2020), job satisfaction is an attitude, behavior, and vision of an employee in carrying out their work. According to Jumiran et al. (2020), job satisfaction is described as an internal state expressed by affective and/or cognitive evaluations of work experiences.

Indicators of Job Satisfaction

According to Bhastary (2020), indicators of job satisfaction are:
1. Working Conditions
2. Income (Salary and Benefits)
3. Promotion
4. Relationship with Coworkers
5. Relationship with Superiors
6. The Job Itself
7. Job Security
8. Recognition and Appreciation
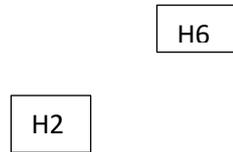9. Work-Life Balance

Conceptual Framework

H6

H2

Figure 1. Conceptual Framework

Research Hypotheses

The research hypotheses are as follows:

1. Leadership style has a positive and significant effect on employee loyalty at PT PLN (Persero) UP2D North Sumatra.
2. Work environment has a positive and significant effect on employee loyalty at PT PLN (Persero) UP2D North Sumatra.
3. Leadership style has a positive and significant effect on job satisfaction at PT PLN (Persero) UP2D North Sumatra.
4. Work environment has a positive and significant effect on job satisfaction at PT PLN (Persero) UP2D North Sumatra.
5. Job satisfaction has a positive and significant effect on employee loyalty at PT PLN (Persero) UP2D North Sumatra.
6. Leadership style has a positive and significant effect on employee loyalty through job satisfaction at PT PLN (Persero) UP2D North Sumatra.
7. Work environment has a positive and significant effect on employee loyalty through job satisfaction at PT PLN (Persero) UP2D North Sumatra.

Research Approach and Type

This research is quantitative with an explanatory approach (explaining relationships between variables) and uses Partial Least Squares Structural Equation Modeling (PLS-SEM) estimated using the SmartPLS software. PLS-SEM was chosen because it is suitable for prediction purposes, relatively complex models, data that does not necessarily need to be normally distributed, and its suitability for moderate to small sample sizes according to the guidelines of Hair et al. (2019).

Research Location and Time

The research was conducted at PT PLN (Persero) Distribution Control Implementation Unit (UP2D) North Sumatra, located at Medan City, Jl. KL. Yos Sudarso No.284, Glugur Kota, Kecamatan Medan Barat, Kota Medan, Sumatera Utara 20238 (PLN UP2D North Sumatra Office). The research was conducted from November to December 2025;

Research Population and Sample

The population in this study were all employees of PT PLN (Persero) UP2D North Sumatra, totaling 117 people. According to Arikunto (2019), a population is the entire research subject with certain characteristics to be studied. According to Sugiyono (2019), a saturated sampling technique is a sampling determination technique when all population members are used as a sample due to a relatively small population size. Therefore, the sample size in this study was 117 employees of PT PLN (Persero) UP2D North Sumatra.

Data Collection Technique

In this research, the data collection techniques used are as follows:

1. Questionnaire
2. Documentation study

Data Analysis Technique

Data analysis in this research uses the Partial Least Squares (PLS) approach with the help of the SmartPLS 3.3.3 program. According to Ghozali and Latan (2018), Partial Least Squares (PLS) is an alternative approach to variance-based Structural Equation Modeling (SEM) used to test the model of relationships between latent variables (constructs) that are predictive. The PLS model consists of two parts: the measurement model (outer model) and the structural model (inner model).

Measurement Model (Outer Model)

The measurement model is used to evaluate the relationship between latent variables and their indicators. Outer model evaluation is carried out through the following stages:
1. Convergent Validity Test
2. Discriminant Validity Test
3. Reliability Test

Structural Model (Inner Model)

The structural model is used to test the relationships between latent variables based on the established hypotheses. Evaluation of the inner model is done by:
1. R-Square (R^2) Test
2. Predictive Relevance (Q^2) Test
3. Significance Test (Hypothesis Test)

Results and Discussion
Outer Model Analysis
Convergent Validity

The measurement model with convergent validity for reflective indicators is indicated by the relationship between item/indicator scores and construct scores. While the research is still in the development stage, it is permissible to use indicators whose individual correlation values are higher than 0.7. Indicator values of 0.5 and 0.6 are still considered acceptable. External loading data shows that these indications are not substantial, with loadings below 0.60. The research structural model is shown in the following figure:
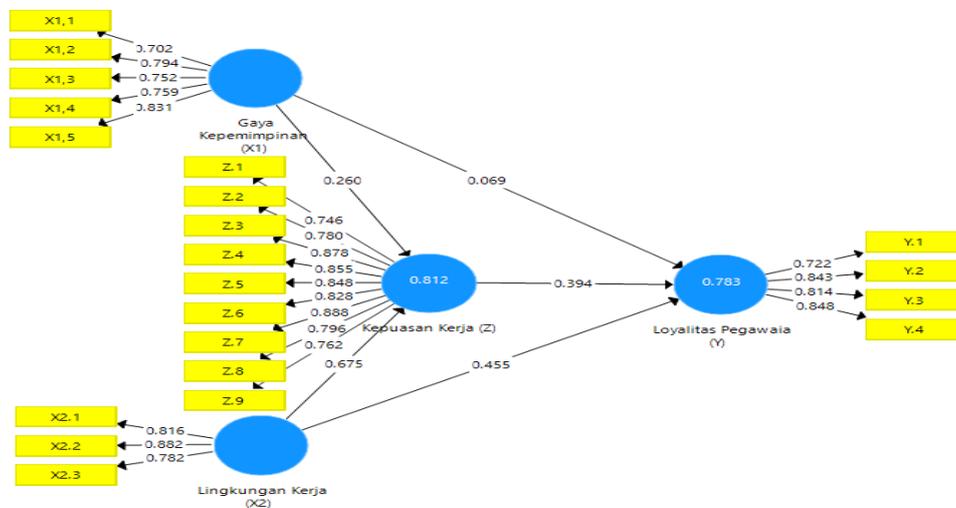

Figure 2. Outer Model

Source: Smart PLS 3.3.3

In the outer model results, there are equations in the research. These equations are divided into 2 substructures as follows:
Substructure 1
$Z = b1X1 + b2X2 + e$

Z = 0,260 + 0,675
Substructure 2
Y = b3X1 + b4X2 + b5Z + e
Y = 0,069 + 0,455 + 0,394

Table 1. Outer Loadings

	Leadership Style (X1)	Job Satisfaction (Z)	Work Environment (X2)	Employee Loyalty (Y)
X1,1	0,702			
X1,2	0,794			
X1,3	0,752			
X1,4	0,759			
X1,5	0,831			
X2.1			0,816	
X2.2			0,882	
X2.3			0,782	
Y.1				0,722
Y.2				0,843
Y.3				0,814
Y.4				0,848
Z.1		0,746		
Z.2		0,780		
Z.3		0,878		
Z.4		0,855		
Z.5		0,848		
Z.6		0,828		
Z.7		0,888		
Z.8		0,796		
Z.9		0,762		

Source: Smart PLS 3.3.3

Based on Table 1, all indicators for the variables Leadership Style, Work Environment, Job Satisfaction, and Employee Loyalty have outer loading values above 0.70. This shows that each indicator is able to reflect its construct well and meets convergent validity criteria. Thus, all indicators are declared valid and suitable for use in further structural model testing.

Discriminat Validity
The results of the discriminant validity cross-loading test are presented in the following table.

Table 2. Discriminant Validity

	Leadership Style (X1)	Job Satisfaction (Z)	Work Environment (X2)	Employee Loyalty (Y)
X1,1	0,702	0,512	0,585	0,480
X1,2	0,794	0,587	0,586	0,589
X1,3	0,752	0,655	0,651	0,620
X1,4	0,759	0,672	0,606	0,594
X1,5	0,831	0,686	0,728	0,640
X2.1	0,736	0,691	0,816	0,675

X2.2	0,778	0,804	0,882	0,800
X2.3	0,521	0,708	0,782	0,657
Y.1	0,545	0,582	0,596	0,722
Y.2	0,676	0,666	0,711	0,843
Y.3	0,580	0,687	0,681	0,814
Y.4	0,666	0,808	0,784	0,848
Z.1	0,601	0,746	0,649	0,617
Z.2	0,668	0,780	0,714	0,740
Z.3	0,707	0,878	0,828	0,762
Z.4	0,634	0,855	0,747	0,621
Z.5	0,681	0,848	0,737	0,726
Z.6	0,705	0,828	0,706	0,663
Z.7	0,730	0,888	0,811	0,749
Z.8	0,659	0,796	0,672	0,707
Z.9	0,636	0,762	0,691	0,718

Source: Smart PLS 3.3.3

Based on Table 2, the discriminant validity test results show that each indicator has the highest correlation value on the construct it measures compared to other constructs. This indicates that the indicators for the variables Leadership Style, Work Environment, Job Satisfaction, and Employee Loyalty are able to clearly distinguish their constructs. Thus, all constructs in the model are declared to meet discriminant validity criteria and are suitable for use in further analysis.

Composite reliability

The construct value of the variable from the indicator block measuring the construct can be used to calculate reliability value using Cronbach's alpha besides testing composite reliability value. An item is considered credible if its Cronbach's alpha value is greater than 0.7. The following table displays the variable construct loading values obtained through the use of the Smart PLS program:

Table 3. Construct Reliability and Validity

	Cronbach's Alpha	Composite Reliability	Average Variance Extracted (AVE)
Leadership Style (X1)	0,826	0,878	0,591
Job Satisfaction (Z)	0,939	0,949	0,675
Work Environment (X2)	0,769	0,867	0,685
Employee Loyalty (Y)	0,822	0,883	0,653

Source: Smart PLS 3.3.3

Based on Table 3, all constructs have Cronbach's Alpha and composite reliability values above 0.70, indicating that each variable has a good level of reliability. Furthermore, the Average Variance Extracted (AVE) values for all constructs are also greater than 0.50, thus meeting convergent validity criteria. Therefore, it can be concluded that all variables in this study are declared reliable and valid for use in further model testing.

Inner Model Analysis

The structural model, also known as the inner model, is assessed to ensure its accuracy and reliability. Several indicators such as the following can be used to visualize the stages of structural model evaluation analysis:

Coefficient of Determination (R2)

Based on data processing using the SmartPLS 3.0 program, the R Square values obtained are as follows:

Table 4. R Square Results

	R Square	**Adjusted R Square**
Job Satisfaction (Z)	0,812	0,809
Employee Loyalty (Y)	0,783	0,777

Source: Smart PLS 3.3.3

Based on Table 4, the R Square value for the Job Satisfaction variable is 0.812 and for Employee Loyalty is 0.783, indicating that most of the variation in each endogenous variable can be explained by the independent variables in the model. The Adjusted R Square values, relatively close to the R Square values, indicate that the model has strong and stable explanatory power, so the research model is considered good for use in further analysis.

Hypothesis Testing

The hypothesis testing technique in this study uses T-Statistics and P-Values. A hypothesis is considered accepted if the T-Statistics value is greater than 1.96 and the P-Value is less than 0.05. The following are the results of the direct effect path coefficients:

Table 5. Path Coefficients (Direct Effects)

	Original Sample (O)	**T Statistics (| O/STDEV |)**	**P Values**	**Results**
Leadership Style (X1) -> Job Satisfaction (Z)	0,260	3,805	**0,000**	**Accepted**
Leadership Style (X1) -> Employee Loyalty (Y)	0,069	0,985	**0,162**	**Rejected**
Job Satisfaction (Z) -> Employee Loyalty (Y)	0,394	3,835	**0,000**	**Accepted**
Work Environment (X2) -> Job Satisfaction (Z)	0,675	10,488	**0,000**	**Accepted**
Work Environment (X2) -> Employee Loyalty (Y)	0,455	4,714	**0,000**	**Accepted**

Source: Smart PLS 3.3.3

1. The Effect of Leadership Style on Job Satisfaction
   The test results show a coefficient value of 0.260 with a T-statistic of 3.805 and a p-value of 0.000. This indicates that leadership style has a positive and significant effect on job satisfaction, so the hypothesis is accepted.
2. The Effect of Leadership Style on Employee Loyalty
   The test results show a coefficient value of 0.069 with a T-statistic of 0.985 and a p-value of 0.162. This indicates that leadership style does not have a significant effect on employee loyalty, so the hypothesis is rejected.

3. The Effect of Job Satisfaction on Employee Loyalty
The test results show a coefficient value of 0.394 with a T-statistic of 3.835 and a p-value of 0.000. This proves that job satisfaction has a positive and significant effect on employee loyalty, so the hypothesis is accepted.
4. The Effect of Work Environment on Job Satisfaction
The test results show a coefficient value of 0.675 with a T-statistic of 10.488 and a p-value of 0.000. This indicates that work environment has a positive and significant effect on job satisfaction, so the hypothesis is accepted.
5. The Effect of Work Environment on Employee Loyalty
The test results show a coefficient value of 0.455 with a T-statistic of 4.714 and a p-value of 0.000. Thus, work environment has a positive and significant effect on employee loyalty, so the hypothesis is accepted.

Table 6. Path Coefficients (Indirect Results)

	Original Sample (O)	T Statistics (| O/STDEV |)	P Values	Results
Leadership Style (X1) -> Job Satisfaction (Z) -> Employee Loyalty (Y)	0,102	2,558	**0,005**	**Accepted**
Work Environment (X2) -> Job Satisfaction (Z) -> Employee Loyalty (Y)	0,266	3,514	**0,000**	**Accepted**

Source: Smart PLS 3.3.3

6. The Effect of Leadership Style on Employee Loyalty through Job Satisfaction
The test results show a coefficient value of 0.102 with a T-statistic of 2.558 and a p-value of 0.005. These results prove that Leadership Style has a positive and significant effect on Employee Loyalty through Job Satisfaction, so the hypothesis is accepted. This finding explains that although Leadership Style does not have a significant direct effect on Employee Loyalty, the effect becomes significant when mediated by Job Satisfaction.
7. The Effect of Work Environment on Employee Loyalty through Job Satisfaction
The test results show a coefficient value of 0.266 with a T-statistic of 3.514 and a p-value of 0.000. These results show that Work Environment has a positive and significant effect on Employee Loyalty through Job Satisfaction, so the hypothesis is accepted. This finding strengthens the results of H5 which stated that Work Environment also has a positive and significant effect on Employee Loyalty directly, so Job Satisfaction acts as a mediating variable that strengthens this relationship.

Conclusion
1. Leadership style is proven to have a positive and significant effect on job satisfaction, so the better the leadership style, the higher the employee's job satisfaction.
2. Leadership style does not have a significant effect on employee loyalty, meaning employee loyalty is not formed directly from leadership style.
3. Job satisfaction has a positive and significant effect on employee loyalty, indicating that satisfied employees tend to have higher loyalty.
4. Work environment has a positive and significant effect on job satisfaction, so conducive working conditions can increase employee satisfaction.
5. Work environment has a positive and significant effect on employee loyalty, indicating that a good work environment encourages employees to remain loyal to the organization.

6. Leadership style has a positive and significant effect on employee loyalty through job satisfaction, meaning job satisfaction acts as a mediating variable in that relationship.
7. Work environment has a positive and significant effect on employee loyalty through job satisfaction, showing that job satisfaction strengthens the influence of the work environment on employee loyalty.

Suggestions
1. Organizational leaders are advised to continuously improve the quality of leadership styles oriented towards support, communication, and employee empowerment, as it is proven to affect increased job satisfaction.
2. Organizations need to create and maintain a safe, comfortable, and conducive work environment, both in terms of physical and non-physical aspects, because the work environment affects employee loyalty both directly and indirectly.
3. Management is advised to pay more attention to factors that shape job satisfaction, such as reward systems, work fairness, and interpersonal relationships, because job satisfaction is proven to be key in increasing employee loyalty.
4. Organizations are expected not to rely solely on leadership style in building employee loyalty, but also to integrate it with policies to increase satisfaction and a supportive work environment.
5. Further research is suggested to develop the research model by adding other variables that potentially affect employee loyalty, such as organizational commitment, work motivation, organizational culture, or workload, to enrich the study of human resource management theory.

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