

**THE INFLUENCE OF WORK ENVIRONMENT AND LEADERSHIP ON
EMPLOYEE PERFORMANCE WITH JOB SATISFACTION AS A
MODERATOR VARIABLE AT PT. CITRA INDAH PERTIWI**



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Abstract

This research aims to answer the influence of the work environment and leadership on employee performance with job satisfaction as a moderator variable at PT. Citra Indah Pertiwi. Data collection was carried out by distributing questionnaires to PT. Citra Indah Pertiwi, totaling 43 people. This research uses quantitative methods and carries out data processing using the IBM SPSS Statistics 22 tool. This analysis includes reliability tests, validity tests, classical assumption tests, statistical tests, multiple linear regression tests, and moderation tests using Moderated Regression Analysis (MRA). The results of the t-test (partial) show that the work environment has a positive and significant effect on employee performance with a coefficient value of 0.203 a probability value of 0.003 and a calculated t-value of 3.725. Leadership has a positive and significant effect on employee performance with a coefficient value of 0.108 with a probability value of 0.000 and a calculated t value of 2.367. Meanwhile, the results of the f (simultaneous) test show a value of 13.387, which means that the work environment and leadership together have a significant influence on employee performance. The results of the multiple linear tests show the results $Y = 14.881 + 0.203X_1 + 0.108X_2$. Job satisfaction can moderate the influence of the work environment and leadership on employee performance.

Keywords: Work Environment, Leadership, Employee Performance, Job Satisfaction

INTRODUCTION

An organization needs good management in carrying out the organization's efforts to achieve the goals of the organization. Not only in the private sector, the public sector also needs good management to provide the best service to the public or people who need it. Achieving organizational goals depends on the success of the organization's individuals in carrying out their duties.

Individual organizations will find many obstacles to being able to work well so that their performance can be well received by organizations and communities in need. Many factors can influence performance, including work environment, leadership, job satisfaction, and many others. All of these factors must have an influence, some are dominant, and some are not.

The work environment in the organization also influences the performance carried out by employees. A work environment that is fresh, comfortable, and meets appropriate standards will contribute to employee comfort in carrying out their duties (Nuraini et al, 2021). Apart from that, adequate work facilities and infrastructure are considered important to support employee performance, and more importantly, workplace safety is needed for the continuity of the organization.

A work environment condition can be said to be good if the work environment is healthy, comfortable, safe, and enjoyable for employees to complete their work. According to (Lewa: 2005) the work environment is designed in such a way that a work relationship can be created that binds workers to the environment. A pleasant work environment can make employees feel at home in completing their work and able to achieve optimal results. On the other hand, if the working environment conditions are inadequate, it will have a negative impact in reducing the level of employee productivity.

Leadership is an important factor in providing direction to employees, so leaders in human resource management need to arrange for their subordinates to work well so that company goals can be achieved. To support employee performance achievements, the role of motivation is very important as a force within the individual that will move people to do

things more enthusiastically, especially in work motivation which plays a role in employee work performance (NC Donald: 2003). Understanding this motivation is important, which is the responsibility of the leader, because motivating employees in a dynamic organization is not an easy thing, considering that many of the motivation theories used are static in nature.

To employee performance, it is realized that the concept of performance measurement is a complex matter. One performance measurement model that combines organizational and employee elements is the Total Performance Scorecard (Rampersad, 2005). This model complements the Balanced Scorecard model by Kaplan and Norton with an improvement cycle and provides an understanding in performance assessment that a company's failure to respond to various factors within the company can lead to achieving ineffective results.

Job satisfaction is a pleasant emotional state or general attitude towards the difference between rewards received and those that should be received. Job satisfaction is influenced by several factors, namely fair and appropriate remuneration, placement following skills, the severity of the work, the atmosphere and work environment, equipment that supports the implementation of the work, the leader's attitude and leadership, and the monotonous nature of the work or not. Employee job satisfaction can be seen not only when doing work, but also related to other aspects such as interactions with colleagues, superiors, following regulations, and the work environment. Job satisfaction is an emotional state that is pleasant or unpleasant for employees regarding their work. Job satisfaction reflects a person's feelings towards their work which can be seen from the employee's attitude towards work and everything in the work environment

Employee job satisfaction is closely related to employee performance. Someone who is satisfied in their work will have high motivation, organizational commitment, and work participation, which will ultimately continue to improve their performance (Pealelu, 2022). Vice versa, high performance will influence job satisfaction. Job satisfaction also has an impact on low employee productivity, high absenteeism at work, and low

organizational commitment. Thus, job satisfaction is a set of employees' feelings about whether their work is enjoyable or not.

In connection with the problem of employee job satisfaction at PT. Citra Indah Pertiwi is an unfair reward system according to employee perception. because each employee will compare the ratio of their results and input to the ratio of other people's results and input. An employee's job satisfaction influences his or her presence at work, and willingness to work is also often influenced by his or her desire to change jobs

REVIEW OF LITERATURE

Work Environment

According to (Sutrisno, 2016), the work environment is the entire work facilities and infrastructure around employees who are carrying out work which can influence the implementation of the work. The work environment includes the work place, facilities and work aids, cleanliness, lighting, peace, including working relationships between the people in that place.

According to (Ciptomulyono et al., 2017), the work environment is a factor that has a very broad scope and can also influence the performance of an employee. The influence of the work environment is not only from co-workers but the condition of the workspace in terms of cleanliness, comfort, and also working relationships in the workplace.

Leadership

(Thoha, 2011) states that leadership is the process of influencing the behavior of other people, both individuals and groups. Leadership is the most important factor in an organization because the success or failure of a company can be seen from the leadership that exists in the organization.

According to (Yamin, 2010), leadership is the influencing process carried out by someone in managing members of their group to achieve organizational goals. Leadership is a form of strategy or leadership theory that is of course carried out by people whom we

usually call leaders. A leader is someone with leadership authority who directs subordinates to do their part of the job

Employee Performance

Brahmasari in (Nitasari, 2012) stated that performance is "the achievement of organizational goals which can take the form of quantitative or qualitative output, creativity, flexibility, reliability, or other things desired by the organization". Performance according to (Wibowo, 2010) is "work results that have a strong relationship with the organization's strategic goals, customer satisfaction and contribute to the economy".

Job Satisfaction

According to (Hasibuan, 2016), job satisfaction is a key driver of employee morale, discipline and work performance in supporting the realization of company goals. Job satisfaction is the emotional attitude of employees who are happy and love their work. According to (Luthans, 2015), job satisfaction is the result of an employee's perception of the extent to which work can provide everything meaningful to the employee himself

Conceptual Framework

According to (Uma, 2011), a conceptual framework is a conceptual model of how a theory relates to various factors that have been identified as important, so a framework of thinking is an understanding that underlies other understandings, an understanding that is the most basic and is the foundation for every thought or form. the overall process of the research to be carried out. The conceptual framework in this research can be seen in following figure:

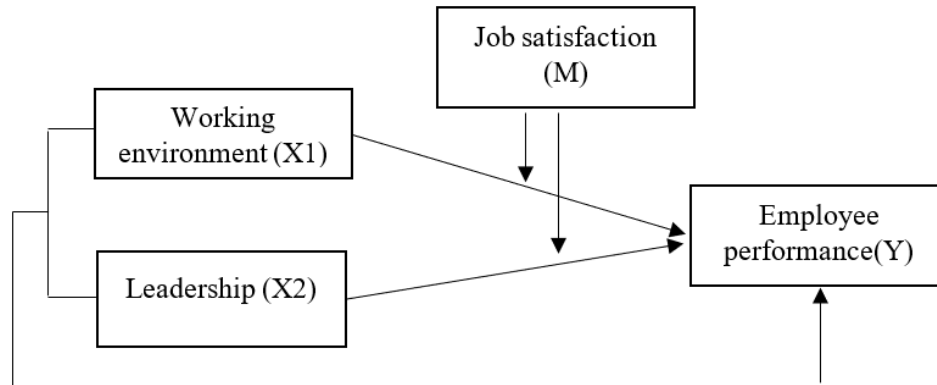


Figure 1.
Conceptual Framework

Research Hypothesis

H1: There is a significant and significant influence on the work environment on employee performance at PT. Citra Indah Pertiwi.

H2: There is a significant and significant influence of leadership on employee performance at PT. Citra Indah Pertiwi.

H3: There is a significant and significant influence of the work environment and leadership on employee performance at PT. Citra Indah Pertiwi.

H4: There is a significant and significant influence on the work environment on employee performance with job satisfaction as a moderator variable at PT. Citra Indah Pertiwi.

H5: There is a significant and significant influence of leadership on employee performance with job satisfaction as a moderator variable at PT. Citra Indah Pertiwi.

RESEARCH METHOD

Types of Research

This research uses a qualitative data approach, namely an approach using direct observation in the field, and uses a quantitative approach, namely by distributing questionnaires. With this research, it is hoped that the independent variables can be identified, namely Work Environment and Leadership on Employee Performance with Job

Satisfaction as a moderator variable PT. Citra Indah Pertiwi. The population and sample in this research are employees at PT. Citra Indah Pertiwi has many as 43 respondents.

The type of research used in this research is explanatory research. According to , explanatory research is research that looks at the relationship between research variables and tests hypotheses that have been previously formulated. This research uses a questionnaire as a tool to collect data.

In this research, the data analysis used is:

1. Descriptive Analysis

This analysis is used to analyze data by describing the data that has been collected without intending to make general conclusions. In this research, it is used to describe work environment variables, leadership, employee performance and job satisfaction by distributing items from each variable.

2. Multiple Linear Regression Analysis

This analysis is used to predict the relationship between the independent variable and the dependent variable. Using the multiple linear regression equation it is formulated as follows:

$$Y = a + b_1x_1 + b_2x_2$$

Information:

Y : Dependent variable (employee performance)

a : constant

b₁, b₂ : Regression coefficient

x₁, x₂ : Independent variables

3. Hypothesis test

a. Partial Hypothesis Testing

This hypothesis is to partially determine the influence of the work environment and leadership on employee performance. According to (Sugiyono, 2015), the test is used with the formula:

$$T = \frac{r\sqrt{n-2}}{\sqrt{1-r^2}}$$

Information:

T : t value

R : partial correlation found

N : number of samples

Based on the guideline that if the calculated t value > t table, then H0 is rejected or Ha is accepted and conversely if t calculated < t table, then Ho is accepted or Ha is rejected.

b. Simultaneous Hypothesis Testing

F test according to (Sugiyono, 2015), used to test the independent variables together against the dependent variable, apart from that, with the F test it can be seen whether the linear regression model used is correct or not, with the formula:

$$F = \frac{R^2/k}{(1-R^2)/(n-k-1)}$$

Where:

F : Fisher's probability distribution approach

K: the number of independent variables

R2: coefficient of determination

N: number of respondents

Next, to find out whether this regression is significant or not, the F test is used. If F count > F table, then the decision on Ho is rejected and Ha is accepted and vice versa if F count < F table, then the decision on Ha is rejected and Ho is accepted.

RESULTS AND DISCUSSION

Multiple Linear Regression Analysis

This analysis is used to determine the influence of the independent variables (work environment and leadership) on the dependent variable (employee performance). The results of the regression analysis are as follows:

Table 1.
Multiple Linear Regression Analysis
Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	Q	Sig.
	B	Std. Error	Beta		
(Constant)	14,881	9,405		3,582	,121
1 Work environment	,203	,280	,115	3,725	,003
Leadership	,108	,296	,058	2,367	,000

a. Dependent Variable: Employee Performance

Based on Table 1, by looking at the Unstandardized Coefficients column part B, you can see the multiple linear regression coefficient equation obtained as follows:

$$Y = 14,881 + 0,203 X_1 + 0,108 X_2 + e$$

The multiple regression equation is explained as follows:

1. The constant value (a) of 14.881 means that if the work environment (X1) and leadership (X2) both remain at zero, then the resulting employee performance (Y) is worth 14.881.
2. The work environment has a positive and significant effect on employee performance with a regression coefficient of 0.203. This means that if the work environment increases by one unit and other variables are considered constant, then employee performance will increase by 0.203.
3. Leadership has a positive and significant effect on employee performance with a regression coefficient of 0.108. This means that if leadership increases by one unit and other variables are considered constant, then employee performance will also increase by 0.108.

Parsial Test (t Test)

The t-test is used to determine the extent to which the work environment (X1) and leadership (X2) partially influence employee performance (Y). The t test is carried out by comparing the calculated t value with the t table used is the t value at the degree of freedom df (43) at $\alpha = 0.05$, namely 1.681

The decision-making criteria are:

- H_0 is accepted if $t_{count} < t_{table}$ at $\alpha = 0.05$
- H_a is accepted if $t_{count} > t_{table}$ at $\alpha = 0.05$

Table 2.
t test results
Coefficients^a

Model	Q	Sig.
(Constant)	3,582	,121
1 Work environment	3,725	,003
Leadership	2,367	,000

a. Dependent Variable: Employee Performance

Source: Research Results (2022)

Based on table 2, it can be explained as follows:

- Work environment variable (X1), the t_{count} value is obtained 3,725 with a significance level of 0.003. Thus, the value of t_{count} ($3,725 > t_{table}$ (1.681) with a significance level of $0.03 < 0.05$. This means that partially the work environment has a significant effect on employee performance.
- Leadership variable (X2), the t value obtained is 2.367 with a significance level of 0.045. Thus, the value of t_{count} ($2.367 > t_{table}$ (1.681) with a significance level of $0.00 < 0.05$. This means that partially leadership has a significant effect on employee performance

Simultaneous Test (F Test)

Table 3.
Hypothesis F Test
ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	20,287	2	10,143	13,387	,000b
	Residual	1049,388	40	26,235		
	Total	1069,674	42			

a. Dependent Variable: Employee Performance

b. Predictors: (Constant), Leadership, Work Environment

Source: Research Results (2022)

Based on table 3, it is known that the Fcount value is 13.387 with a significance level of 0.000. Thus, the value of Fcount (13.387) > Ftable (2.62) with a significance level of 0.000 < 0.05. This means that the work environment and leadership simultaneously have a positive and significant effect on employee performance.

Determinant Coefficient

This analysis is used to find out how much contribution or influence the independent variable has on the dependent variable, which is shown in percentages. The results of the coefficient of determination are as follows.

Table 4.
Coefficient of Determination
Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,638a	,619	,530	5,122

a. Predictors: (Constant), Leadership, Work Environment

b. Dependent Variable: Employee Performance

In table 4, it can be seen that the R value of 0.638 means that the relationship between the independent variables (work environment and leadership) and the dependent variable (employee performance) is 63.8%. The Adjusted R Square value of 0.619 means that employee performance variables can be explained by the work environment and leadership by 61.9%, while the remaining 38.1% is explained by other factors not discussed in this research.

Moderation Test Results

Moderated Regression Analysis (MRA) differs from subgroup analysis because it uses an analytical approach that maintains sample integrity and provides a basis for controlling the influence of moderator variables(Ghozali, 2016). The moderation relationship in this research is regarding:

- a. The influence of the work environment on employee performance is moderated by job satisfaction.

The results of the Moderated Regression Analysis (MRA) test regarding the influence of the work environment (X1) on employee performance (Y) which is moderated by job satisfaction (M).

Table 5.
Work Environment MRA Regression Test Results
Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	36,599	10,443		3,505	,001
Work environment	2,227	,637	1,264	3,498	,001
Job satisfaction	2,390	,299	1,209	1,302	,001
X1M	,068	,020	1,231	3,452	,001

a. Dependent Variable: Employee Performance

From table 5 above, it can be seen that the work environment variable (X1) provides a parameter coefficient value (β) of 2.227 with a significance level of 0.001. The job satisfaction variable (M) provides a parameter coefficient value (β) of 2.390 with a significance level of 0.001. The moderate variable1 is the interaction between work environment (X1) and job satisfaction (Z) showing significant results.

Thus, the results of this study prove the fourth hypothesis, namely that job satisfaction can moderate the influence of the work environment on employee performance. The interaction between the work environment and job satisfaction is the best match, meaning that job satisfaction (M) can act as a moderating variable that influences the relationship between the work environment and employee performance.

b. The influence of leadership on employee performance is moderated by job satisfaction

The results of the Moderated Regression Analysis (MRA) test regarding the influence of leadership (X2) on employee performance (Y) which is moderated by work-life intention.

Table 6.
Leadership MRA Regression Test Results
Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	99,609	58,437		1,705	,096
Leadership	4,419	2,776	2,375	1,592	,003
Job satisfaction	5,291	2,719	2,107	1,946	,005
X2M	,209	,128	3,450	1,631	,000

a. Dependent Variable: Employee Performance

The parameter coefficient value (β) is 4.419 with a significance level of 0.003, and the job satisfaction variable (M) provides a parameter coefficient value (β) of 5.291 with a significance level of 0.005. The moderate2 variable provides a parameter coefficient value

(β) of 0.209 with a significance level of 0.000. Moderate variable 2 is the interaction between leadership (X2) and job satisfaction (M) showing significant results.

Thus, the results of this study prove the fifth hypothesis, namely that job satisfaction can moderate the influence of leadership on employee performance. The interaction between leadership and job satisfaction is the best match, meaning that job satisfaction (M) can act as a moderating variable that influences the relationship between leadership and employee performance.

Discussion

Based on regression analysis, the results of this study support that the work environment (X1) has a positive and significant effect on employee performance (Y), where the regression coefficient value is positive 0.203 and the value tcount ($3,725 > t_{table}$ (1.681) with a significance level of $0.03 < 0.05$. This means that partially the work environment has a significant effect on employee performance at PT. Citra Indah Pertiwi. Thus, the hypothesis can be accepted.

Based on regression analysis, the results of this study support that leadership (X2) has a positive and insignificant effect on employee performance (Y), where the regression coefficient value is positive 0.108 and the value tcount ($2,367 > t_{table}$ (1.681) with a significance level of $0.00 < 0.05$. This means that partially leadership has a significant effect on employee performance at PT. Citra Indah Pertiwi. So, the hypothesis can be accepted.

Based on regression analysis, the research results support that the work environment (X1) and leadership (X2) have a positive and significant effect on employee performance (Y), where the F value is 13,387 with a significance level of 0.000. Thus, the Fcount value ($13,387 > F_{table}$ (2.62) with a significance level of $0.000 < 0.05$. This means that the work environment and leadership simultaneously have a positive and significant effect on employee performance at PT. Citra Indah Pertiwi. Thus, the hypothesis can be accepted.

The results of the tests carried out in this research show that job satisfaction (M) moderates the influence of the work environment (X1) on employee performance (Y).

These results are shown through a regression equation with an interaction test often called Moderated Regression Analysis (MRA), which shows the results that job satisfaction (M) influences or moderates the influence of work environment variables (X1) on employee performance (Y). The t-test results show that the work environment variable (X1) provides a parameter coefficient value (β) is 2.227 with a significance level of 0.001. The job satisfaction variable (M) provides a parameter coefficient value (β) of 2.390 with a significance level of 0.001. In other words, job satisfaction strengthens the influence of the work environment on employee performance. Thus, the results of this study prove hypothesis 4 that job satisfaction moderates the influence of the work environment on employee performance.

The results of the tests carried out in this research show that job satisfaction (M) does not moderate the influence of leadership (X2) on employee performance (Y). These results are shown through a regression equation with an interaction test often called Moderated Regression Analysis (MRA), which shows the results that job satisfaction (M) influences or moderates the influence of the leadership variable (X2) on employee performance (Y). t-test results show that the leadership variable (X2) provides a parameter coefficient value (β) amounting to 5.291 with a significance level of 0.005. The moderate2 variable provides a parameter coefficient value (β) of 0.209 with a significance level of 0.000. In other words, job satisfaction strengthens the influence of leadership on employee performance. Thus, the results of this study prove hypothesis 5 that job satisfaction moderates the influence of leadership on employee performance.

CONCLUSION

Work environment variables have a positive and significant effect on employee performance. This means that if the work environment increases by one unit and other variables are considered constant, then employee performance will increase. Leadership variables have a positive and significant effect on employee performance. shown by a regression coefficient of 0. This means that if leadership increases by one unit and other variables are considered constant, then employee performance will increase. Work

environment variables (X1) and leadership simultaneously have a positive and significant effect on employee performance (Y). indicated by the calculated F value being greater than the table F value ($13.387 > 2.62$). The job satisfaction variable (M) can moderate the relationship between the work environment (X1) and employee performance. The job satisfaction variable (M) can moderate the relationship between leadership (X2) and employee performance.

Suggestion

1. For PT. Citra Indah Pertiwi, management must be more observant in paying attention to employee needs, especially regarding work environmental factors, both physical and non-physical work environments, because work environmental factors have a huge influence on the performance of employees at PT. Citra Indah Pertiwi.
2. For further research, although this research has been carried out as well as possible, some limitations cannot be avoided. For future researchers who wish to research the same topic, research expansion is recommended, including adding other variables that are still related to factors related to employee performance to produce a broader picture and more accurate results as well as using a larger sample.

REFERENCES

- Ciptomulyono, U., Anshori, M. Y., & Fodyansa, A. (2017). Pengaruh Kompetensi, Motivasi, Kepemimpinan, dan Lingkungan Kerja Terhadap Manajemen Stres dan Kinerja Karyawan pada Dinas. *Business and Finance Journal*, 2(2), 99–114. <https://doi.org/10.33086/bfj.v2i2.470>
- Ghozali, I. (2016). *Aplikasi Analisis Multivariate Dengan Program IBM SPSS 23* (8th ed.). Badan Penerbit Universitas Diponegoro.
- Hasibuan, M. S. (2016). *Manajemen Sumber Daya Manusia* (Revisi). Bumi Aksara.
- Lewa, K., Iip, Idham, Eka dan Subowo, 2005, “Pengaruh Kepemimpinan, Lingkungan Kerja Fisik dan Kompensasi Terhadap Kinerja Karyawan di PT. Pertamina (Persero) Daerah Operasi Hulu Jawa Bagian Barat Cirebon.” *Jurnal SINERGI: Kajian Bisnis dan Manajemen Edisi Khusus on Human Resources*.
- Luthans, F. (2015). *Perilaku Organisasi, (Alih Bahasa V.A Yuwono, dkk)*.

- Nitasari, R. A. (2012). *Analisis Pengaruh Motivasi Kerja Terhadap Kinerja Karyawan Dengan Kepuasan Kerja Sebagai Variabel Intervening Pada PT. Bank Central Asia Tbk. Cabang Kudus*. Universitas Diponegoro, Semarang.
- Nilson, C.D., 2003. *How to Manage Training: a guide to design and delivery for high performance*. 3rd ed. Amacom.
- Nuraini, N., Sarkum, S., & Halim, A. (2021). Analysis of Company Capability, Supply Chain Management of Competitive Advantage, and Company Performance. *Indonesian Interdisciplinary Journal of Sharia Economics (IIJSE)*, 4(1), 87-104. <https://doi.org/10.31538/ijse.v4i1.1463>
- Pelealu, D. (2022). The Effect of Knowledge Management System and Knowledge Sharing on Employee Performance and Loyalty. *Indonesian Interdisciplinary Journal of Sharia Economics (IIJSE)*, 5(1), 371-389. <https://doi.org/10.31538/ijse.v5i1.2162>
- Rampersad, H. K. (2005). *Total Performance Scorecard : Aligning Human Capital with Business Strategy and Ethics*. Nanyang Business Review, 4(1), 71–99.
- Sugiyono. (2015). *Metode Penelitian Pendidikan (Pendekatan Kuantitatif, Kualitatif dan R&D)*. Alfabeta.
- Sutrisno, E. (2016). *Manajemen Sumber Daya Manusia*. Kencana.
- Thoha, M. (2011). *Perilaku Organisasi, Konsep Dasar dan Aplikasinya*. Rajawali Pers.
- Uma, S. (2011). *Metodologi Penelitian untuk Bisnis* (4th ed.). Salemba Empat.
- Wibowo. (2010). *Manajemen Kinerja*. Rajawali Pers.
- Yamin, M. dan M. (2010). *Standarisasi Kinerja Guru*. Persada Press.