



The Influence Of Work Environment And Motivation On Employee Spirit At Pt Perkebunan Nusantara IV, Gunung Meliau Palm Oil Mill Work Unit

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ABSTRACT

This study aims to identify and analyze the influence of the Work Environment and Motivation on the Work Spirit of employees at PT Perkebunan Nusantara IV, Gunung Meliau Palm Oil Mill Work Unit. The population in this study consists of 125 individuals, using a saturated sampling technique. Data collection techniques in this study include interviews and questionnaires. The analytical tools used in this research are instrument tests, classical assumption tests, multiple linear regression analysis, correlation coefficients, determination coefficients, F-tests, and T-tests. The results of the study show that the work environment and motivation affect work spirit both simultaneously and partially. Therefore, to enhance work spirit, both the work environment and motivation must be well managed.

INTRODUCTION

Oil palm is a plant used in commercial agriculture to produce palm oil. Oil palm (*elaeis guineensis*) is the most commonly cultivated oil palm species in the world, especially in Indonesia and the world's main source of palm oil. Oil palm is also one of the plantation commodities that have a strategic role in Indonesia's economic development. As the world's largest palm oil producer, the palm oil industry has provided employment for 16 million workers both directly and indirectly. PT Perkebunan Nusantara or commonly abbreviated as (PTPN) is a State-Owned Enterprise (BUMN) engaged in the management, processing, and marketing of Plantation products. The commodities cultivated are oil palm, rubber, sugar cane, tea, coffee, tobacco, various woods, fruits and various other plants. PTPN XIII is a subsidiary of PTPN III involved in the cultivation, harvesting, and processing of oil palm into crude palm oil (CPO) and palm kernels for sale. Gunung Meliau Palm Oil Mill is the first mill in Kalimantan which was established in 1982 and inaugurated by President Suharto in 1984 located in Meliau Hilir Village, Meliau District, Sanggau Regency, West Kalimantan. The area of Gunung Meliau MCC is 9.99Ha, which is located ± 150 km east of Pontianak city, ± 42 km west of the capital of Sanggau Regency. Gunung Meliau Palm Oil Mill has a production capacity of 60 tons of FFB/hour, currently operating 1 line with a capacity of 30 tons FFB/hour. In 2014, the Indonesian government officially handed over the majority of the company's shares to PTPN III, as part of its efforts to form a state-owned plantation holding company. In 2023, the company was officially merged into PTPN IV, as part of the effort to form a subholding within PTPN III engaged in the palm oil agro-industry.

In 2023, the total number of employees was 125, consisting of 8 managerial employees and 117 operational employees. The majority of employees were in the Processing Shift A (morning) and Processing Shift B (night), each comprising 22.4% of the total workforce. Attendance at PTPN IV Unit Kerja PKS Gunung Meliau is tracked using a manual system, although a fingerprint attendance system was previously used. However, due to frequent system disruptions, the manual system was reinstated. Attendance is recorded daily from Monday to Saturday, twice a day: for the morning shift at 07:00 WIB (start of work) and 16:00 WIB (end of work), and for the night shift at 14:00 WIB (start of work) and 24:00 WIB (end of work).

The employee absenteeism rate was recorded at 0.39% in 2021, 0.35% in 2022, and 0.35% in 2023. The absenteeism rate decreased by 10.26% in 2022, while in 2023, it remained unchanged. Despite the decrease, the absenteeism rate remains relatively high. Based on an interview with Mr. Imanuel Yulianto, Assistant for Administration and Finance (TUK) at PTPN IV Unit Kerja PKS Gunung Meliau, it was revealed that employees who are absent without explanation or work permission are considered on leave. If employees exceed the set leave limit, they will receive warnings and sanctions. High absenteeism rates can be influenced by the work environment, which is closely related to the psychological factors affecting employees. According to (Widyaningrum, 2019): The work environment encompasses everything around the worker that can influence them in performing their assigned tasks. Examples include cleanliness, music, and other factors. Since these can affect the work being done, every company should strive to create a work environment that has a positive impact on its employees. In their research, (Tweheyo et al., 2017) stated that motivation affects absenteeism. According to (Busro, 2018): With increased enthusiasm and work spirit, tasks will be completed more quickly, and all the negative effects of declining work spirit, such as absenteeism, leaving early, taking leave, pretending to be sick, taking longer breaks, relaxing in the office, lingering in the smoking area, not returning to the office immediately after completing external duties, and so on, can be minimized. This will subsequently boost work spirit and enthusiasm, which is expected to also increase employee productivity.

One indication of fluctuating work morale is the average employee performance. The average performance score of employees at PT Perkebunan Nusantara IV Unit Kerja PKS Gunung Meliau was 90.00% in 2021, 78.33% in 2022, and 82.25% in 2023. The average performance scores from 2021 to 2023 have fluctuated. In 2022, there was a decrease of 11.86%, while in 2023, there was an increase of 3.68%. According to (Widyaningrum, 2019): "A good work environment is one that is conducive. A conducive work environment in the workplace is a prerequisite for creating better performance outcomes." Ahmad et al., (2022), in their research, stated that the work environment positively influences employee performance. According to (Sinambela & Sinambela, 2019): "Motivation is the desire within an individual that causes them to act. People usually act for a reason to achieve a goal. Understanding motivation is crucial for improving performance, reactions to compensation, and other human resource issues, as they both influence and are influenced by motivation." According to (Sudarso et al., 2020) in their research, motivation has a positive and significant effect on employee performance. According to (Busro, 2018): Work morale can be defined as the positive and varied psychological strengths that can enhance employee performance, ultimately improving employee performance. Work morale can also be defined as a working atmosphere within an organization that shows enthusiasm in performing tasks and encourages employees to work better and more productively. (Basri & Rauf, 2021) in their research stated that work morale significantly affects employee performance.

From the results of the author's interview with Mr. Emanuel Yulianto, Assistant for Administration and Finance (TUK), primary data was obtained for the work environment variable, which is limited to the physical and non-physical work environment. For the physical work environment, it was explained that the office's proximity to the factory-made employees feel disturbed while working due to the noise and black smoke from the operating machines.

Additionally, some office facilities are no longer suitable for use, such as patched chairs, glass tables with taped cracks, and storage cabinets with doors that are difficult to open and close. The company has replaced some facilities, but the replacements have not been evenly distributed, making employees feel uncomfortable while working. For the non-physical work environment, it was explained that the relationship between supervisors and operational employees sometimes experiences internal conflicts, and among operational employees, there is occasionally miscommunication regarding work issues.

This not only causes misunderstandings but also risks lowering employee performance from before. As a result, the company will also feel the negative impact, especially on its development. Therefore, the action taken by the leadership is to coordinate and discuss all matters related to tasks and work to maintain good communication.

LITERATURE REVIEW

According to (Widyaningrum, 2019): "The work environment includes everything around the workers/employees that can affect their job satisfaction while performing their tasks." The types of work environments according to (Widyaningrum, 2019) in her research are as follows: 1. Physical Work Environment, the physical work environment encompasses all the physical conditions around the workplace that can influence employees both directly and indirectly. The physical work environment can be divided into two categories: a.

The environment that directly interacts with employees (such as work centers, chairs, tables, etc.). b. The intermediary or general environment, also known as the work environment that affects human conditions, for example: temperature, humidity, air circulation, lighting, noise, mechanical vibrations, unpleasant odors, colors, etc. 2. Non-Physical Work Environment, the non-physical work environment includes all conditions related to work relationships, whether with superiors, peers, or subordinates.

According to (Sinambela & Sinambela, 2019): "Motivation is a change that occurs within a person arising from feelings, mental states, and emotions, driving the individual to act due to needs, desires, and goals." Maslow in Priansa (2021, p. 206) states there are five levels of hierarchical needs: 1. Physiological Needs, these are the lowest level or the most basic needs. For example, the need for food, drink, physical protection, breathing, and sexual needs. 2. Safety Needs, the need for protection from threats, dangers, conflicts, and living conditions, not only in the physical sense but also mental, psychological, and intellectual. 3. Social Needs, the need to feel belonging, to be accepted in groups, to affiliate, to interact, and the need to love and be loved. 4. Esteem Needs, these needs are related to the need to be respected and appreciated by others. 5. Self-Actualization Needs, the need to use abilities, skills, and potential, the need to express opinions, to share ideas, to provide assessments and criticisms.

According to (Busro, 2018): "Work morale can be defined as the positive and varied psychological forces that can enhance employee performance, ultimately improving employee performance."

According to (Bintoro & Daryanto, 2017), there are four aspects that indicate a person has high work morale: 1. Enthusiasm, a person who has enthusiasm for work also has motivation and a drive to work. This motivation is formed when someone has an interest or desire in doing their job. 2. Strength to Combat Frustration, this aspect shows a person's ability to remain constructive even when facing failures in their work.

A person with high work morale will not be pessimistic when encountering difficulties in their job. 3. Quality to Persevere, this aspect indirectly indicates that someone with high work morale does not easily give up when facing challenges in their work. It implies perseverance and full confidence in themselves. 4. Group Spirit, group spirit reflects the relationship among employees. With work morale, employees will cooperate, help each other, and not undermine one another.

Sari et al., (2022) in their research titled "The Influence of Motivation and Work

Environment on Employee Work Spirit (Survey on Employees of RM. Hj Ocoh Tasikmalaya)" stated that motivation and work environment simultaneously have a significant effect on work spirit. Khakim & Rachman (2020) in their research titled "The Influence of Work Environment and Work Motivation on Work Spirit at PT Alkonusa Teknik Interkon Surabaya" stated that work environment and work motivation simultaneously affect work spirit. Bachtiar (2018) in their research titled "The Influence of Work Environment and Motivation on Work Spirit in the Production Division Employees at PT Utama Gas Multi Perkasa Serang Branch" stated that work environment and motivation simultaneously influence work spirit.

METHODS

The type of research used in this study is an associative method with a quantitative approach. This study aims to determine the relationship between work environment and motivation towards work enthusiasm. The data collection techniques in this study are interviews and questionnaires. The sample in this study consists of all permanent employees of PT Perkebunan Nusantara IV, Gunung Meliau Palm Oil Mill Work Unit, totaling 125 people, using a saturated sampling technique.

The measurement scale used in this study is the Likert scale. By using this Likert scale, researchers can measure agreement and disagreement regarding the work environment, motivation, and work enthusiasm of employees. The alternative answer scores set by the author are: strongly disagree, with a score of 1; disagree, with a score of 2; somewhat disagree, with a score of 3; agree, with a score of 4; and strongly agree, with a score of 5.

The data analysis techniques used in this study include instrument testing, classical assumption testing, multiple linear regression analysis, correlation coefficient, to facilitate interpretation regarding the strength of the relationship between two variables, the criteria are as follows: 0.00 – 0.199, Very weak; 0.20 – 0.399, Weak; 0.40 – 0.599, Moderate; 0.60 – 0.799, Strong; 0.80 – 1.000, Very strong. The determination coefficient (r^2), simultaneous test (f-test), and partial test (t-test) are also used.

RESULTS

Respondent Characteristics

Age: The majority of respondents are aged 50-59 years, with a percentage of 59.20%. Gender: Predominantly male, accounting for 96.00%. Education: High school education is the most common, with 57.60%. Rank: Respondents mostly fall into the IB 0-16 category, with a percentage of 33.60%. Work Shift: They work mainly in shift A and shift B, each with a percentage of 22.40%. Work Experience: Most respondents have 20-30 years of work experience, with a percentage of 46.40%. Marital Status: All respondents are married, with a percentage of 100%. Number of Dependents: The majority have two dependents, with a percentage of 52.80%.

Validity Test

This study uses a significance level of 5%, indicating that data is considered valid if the significance value is less than 0.05. The results of the validity test in this study show that all items are valid. This is evidenced by the calculated value $r_{count} > r_{table}$ 0.175.

Reliability Test

Table 1 Reliability Test Results

Variabel	Cronbach's Alpha	Informasi
Work Environment (X1)	0,796	Reliabel
Motivation (X2)	0,737	Reliabel
Employee Spirit (y)	0,792	Reliabel

Based on the table, this is proven by the reliability values of the variables as follows: the work environment variable shows a *Cronbach's alpha* value of 0.796 > 0.60, the motivation

variable shows a *Cronbach's alpha* value of $0.737 > 0.60$, and the work enthusiasm variable shows a *Cronbach's alpha* value of $0.792 > 0.60$. This proves that all the indicators used are reliable, with an indicator being considered reliable if it has a *Cronbach's alpha value* > 0.60 .

Normality Test

This test uses a significance level of 5%. Data is considered normal if it has a significance value greater than 0.05. The results of the normality test in this study use the *One-Sample Kolmogorov-Smirnov test*. The test results can be seen in the following table:

Table 2 Normality Test Results

One-Sample Kolmogorov-Smirnov Test	
Number of Respondents	125
Significance Value	0,494
Significance Level	0,05

The results of the normality test in the table above show a significance value of 0.494, which is greater than 0.05. Therefore, it can be concluded that the tested data is normally distributed.

Linearity Test

Based on the results of the linearity test, it is known that the value of deviation from linearity is $0.365 > 0.05$. Thus, it can be concluded that there is a linear relationship between the work environment and work enthusiasm. For the motivation variable, the value of deviation from linearity is $0.359 > 0.05$, indicating a linear relationship between motivation and work enthusiasm.

Multicollinearity Test

The results of the multicollinearity test can be seen in the following table:

Table 3 Multicollinearity Test Results

Model	Tolerance	VIF
Work Environment	0,950	1,053
Motivation	0,950	1,053

The table of multicollinearity test results shows that the variables work environment and motivation have tolerance values greater than 10% or 0.10, namely the work environment variable at $0.950 > 0.10$ and the motivation variable at $0.950 > 0.10$.

They also have VIF values less than 10, with the work environment variable at $1.053 < 10$ and the motivation variable at $1.053 < 10$. Therefore, it can be concluded that there is no multicollinearity among the independent variables, which are the work environment and motivation.

Multiple Linear Regression Analysis

Multiple linear regression analysis in this study is used to analyze the effect of the work environment and motivation on work enthusiasm. The regression model estimation results in this study can be seen in the following table:

Table 4 Multiple Linear Regression Analysis Results

		Coefficients ^a						
		Unstandardized Coefficients		Standardized Coefficients			Collinearity Statistics	
Model		B	Std. Error	Beta	t	Sig.	Tolerance	VIF
1	(Constant)	.391	.356		1.096	.275		
	Work Environment	.338	.065	.352	5.201	.000	.950	1.053
	Motivation	.579	.076	.514	7.592	.000	.950	1.053

a. Dependent Variable: Semangat Kerja

Based on Table 4, the estimated multiple linear regression model for the influence of the work environment and motivation on work enthusiasm is as follows:

$$Y = 0.391 + 0.338X_1 + 0.579X_2$$

The regression equation can be explained as follows:

1. Constant (a): The constant is 0.391, which means that if the work environment variable (X1) and motivation (X2) are zero, the value of work enthusiasm (Y) is 0.391 units.
2. Regression Coefficient of Work Environment (X1): The coefficient is 0.338, which means that if the value of the work environment variable increases by one unit, the value of the work enthusiasm variable will increase by 0.338 units.
3. Regression Coefficient of Motivation (X2): The coefficient is 0.579, which means that if the value of the motivation variable increases by one unit, the value of the work enthusiasm variable will increase by 0.579 units.

Multiple Correlation Coefficient

The multiple correlation coefficient measures the strength of the relationship between three or more variables. With the correlation coefficient, it can be determined whether there is a relationship between the variables. The table below can be used to interpret the value of the correlation coefficient:

Table 5 multiple correlation Coefficient results

Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.685 ^a	.469	.461	.23395	.469	53.933	2	122	.000

a. Predictors: (Constant), Motivasi, Lingkungan Kerja

b. Dependent Variable: Semangat Kerja

From the table 5, we can see that the significance value of the F change is 0.000 < 0.05, indicating that the variables work environment and motivation are correlated with work enthusiasm. To assess the strength of this relationship, we look at the correlation coefficient value of 0.685, which falls into the strong correlation category. This means the degree of relationship between the work environment and motivation variables with work enthusiasm is categorized as strong.

Coefficient of Determination (R²)

The value of the coefficient of determination (R²) can be seen in Table 5 which shows that the obtained R² value is 0.469. This indicates that 46.9% (1 x 0.469 x 100) of work enthusiasm can be influenced by the work environment and motivation, while the remaining 53.1% of work enthusiasm is influenced by other variables not examined in this study.

F-Test

The results of the F test in this research can be seen from the following table:

Table 6 F-Test Results

ANOVA^b

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	5.904	2	2.952	53.933	.000 ^a
Residual	6.677	122	.055		
Total	12.581	124			

a. Predictors: (Constant), Motivasi, Lingkungan Kerja

b. Dependent Variable: Semangat Kerja

Table 6, shows that the calculated F value F_{count} is 53.933, which is greater than the F table value F_{table} of 3.07, and the significance value is 0.000, which is less than 0.05. Therefore, it can be concluded that H_0 is rejected and H_a is accepted, meaning that the work environment and motivation simultaneously have a significant effect on work enthusiasm.

T-Test

The results of the T test in this research can be seen from the following table:

Table 7 T-Test Results

Model		Coefficients ^a						
		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	.391	.356		1.096	.275		
	Work Environment	.338	.065	.352	5.201	.000	.950	1.053
	Motivation	.579	.076	.514	7.592	.000	.950	1.053

a. Dependent Variable: Semangat Kerja

Table 7 can be explained as follows:

- a. T-Test Results for the Work Environment Variable (X1): The calculated t value (t_{count}) is 5.201, which is greater than the t table value (t_{table}) of 1.979. The significance value is 0.000, which is less than 0.05. This means that H_0 is rejected and H_a is accepted, indicating that the work environment variable has a significant partial effect on work enthusiasm.
- b. T-Test Results for the Motivation Variable (X2): The calculated t value (t_{count}) is 7.592, which is greater than the t table value (t_{table}) of 1.979. The significance value is 0.000, which is less than 0.05. This means that H_0 is rejected and H_a is accepted, indicating that the motivation variable has a significant partial effect on work enthusiasm.

DISCUSSION

Based on the results of the above study on the influence of the work environment and motivation on work spirit, the author offers the following research suggestions: 1. Attention to Employee Needs: Companies need to pay attention to policies that meet the needs of employees. If employees' needs are well met, their work spirit will increase. Therefore, companies are expected to address the needs of employees, which may include adequate salaries for basic needs, job security, recognition, and promotion opportunities. Employees whose needs are met will have a high work spirit. 2.

Creating a Comfortable Work Environment: Companies need to create a comfortable and enjoyable work environment. They can provide complete facilities and equipment to support employees. Companies should also ensure adequate lighting in the workspace so employees can work optimally and reduce errors.

A good work environment will encourage employees to be more enthusiastic and feel comfortable, as well as increase their sense of responsibility in performing tasks, ultimately improving performance and work spirit. 3. Further Research Suggestions: Future researchers are advised to investigate other variables related to work spirit.

CONCLUSION

Conclusions Based on Data Processing and Analysis, Respondent Characteristics: 1. The majority of respondents are aged 50-59 years, male, with a high school education, belonging to the IB 0-16 rank, working in shift A and shift B, having 20-30 years of work experience, married, and having two dependents. 2. Linear Regression Equation: The obtained linear regression equation is: $Y=0.391+0.338X_1+0.579X_2$. 3. Correlation Coefficient: The correlation coefficient of 0.685 indicates that the influence of the work environment and motivation on the work enthusiasm of employees at PT Perkebunan Nusantara IV, Gunung Meliau Palm Oil Mill Work

Unit, is very strong. 4.

Determination Coefficient (R^2): The determination coefficient (R^2) of 0.469 means that the work environment and motivation influence work enthusiasm by 46.9%, while the remaining 53.1% is influenced by other variables not included in this study. 5. Simultaneous Influence Test (F-Test): Using the simultaneous influence test (F-Test), it is found that the work environment (X1) and motivation (X2) simultaneously affect work enthusiasm (Y). 6. Partial Test (T-Test): Work Environment (X1): The partial test (T-Test) shows that the work environment has a significant partial effect on the work enthusiasm of employees at PT Perkebunan Nusantara IV, Gunung Meliau Palm Oil Mill Work Unit.

Motivation (X2): The partial test (T-Test) shows that the motivation variable has a significant partial effect on the work enthusiasm of employees at PT Perkebunan Nusantara IV, Gunung Meliau Palm Oil Mill Work Unit.

SUGGESTION

Based on the researcher's direct experience during this study, several limitations were encountered. In the data collection process, the information provided by respondents through questionnaires sometimes did not reflect their true opinions. This could be due to differences in viewpoints, assumptions, and understanding among respondents, as well as other factors such as honesty in filling out the questionnaires.

The findings of this research are specific to PT Perkebunan Nusantara IV Unit Kerja Pabrik Kelapa Sawit Gunung Meliau and may not be directly applicable to other companies or industries.

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