

The Influence of the Work Environment and Motivation on Employee Performance at PT Sinergi Gula Nusantara Takalar Sugar Factory

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Abstract

Employee performance is a critical factor in achieving organizational effectiveness and competitiveness, particularly in the manufacturing sector where productivity and operational efficiency are highly dependent on human resources. However, creating a conducive work environment and maintaining employee motivation remain significant challenges for many organizations, including the sugar industry. This study aims to examine the influence of the work environment and motivation on employee performance at PT Sinergi Gula Nusantara, Takalar Sugar Factory. The research employed a quantitative approach with an explanatory design to analyze the relationships between variables. The population consisted of 84 employees, and a saturated sampling technique (census method) was applied, ensuring that all employees were included as respondents. Data were collected through questionnaires, observation, and documentation and analyzed using multiple linear regression. The results indicate that both the work environment and motivation have a positive and significant effect on employee performance. The t-test results show that the work environment variable has a significant effect ($t = 2.282$; $p < 0.05$), while motivation demonstrates a stronger influence ($t = 8.363$; $p < 0.05$), indicating that motivation is the dominant factor affecting employee performance. Furthermore, the coefficient of determination (R^2) value of 0.617 suggests that 61.7% of the variation in employee performance is explained by the work environment and motivation, while the remaining 38.3% is influenced by other factors not examined in this study. These findings imply that organizations should prioritize the development of supportive working conditions and effective motivational strategies to enhance employee performance. The study contributes to the human resource management literature by providing empirical evidence from the manufacturing sector, particularly within the sugar industry context. In conclusion, both the work environment and motivation significantly improve employee performance, with motivation emerging as the most influential factor.

Keywords: *Employee Performance, Human Resource Management, Manufacturing Sector, Motivation, Work Environment*

Introduction

In the era of globalization, organizations are required to continuously enhance their competitiveness in order to survive and grow within increasingly dynamic and competitive industries. One of the most critical factors determining organizational success is the effective management of human resources (Arfah, 2026). Human Resource Management (HRM) plays a strategic role in acquiring, developing, and retaining talented employees while ensuring alignment with organizational goals. Effective HRM practices not only emphasize compliance with legal and ethical standards but also focus on improving employee performance, satisfaction, and productivity. High-quality human resources are essential for organizations to

respond to global challenges, making HR strategies a top priority for sustainable competitive advantage (Budimansyah & Axel, 2023). In this context, employees are not merely operational actors but also strategic assets that drive organizational performance and innovation.

Human resources are unique compared to other organizational resources because they possess cognitive abilities, emotions, skills, and motivations that influence their behavior and performance (Lamama, 2023). Human resources encompass intellectual and emotional capacities, making them central to organizational planning, implementation, and evaluation processes (Dewi et al., 2024). Therefore, employee performance becomes a key determinant of organizational success or failure, particularly in labor-intensive industries such as manufacturing. PT. Sinergi Gula Nusantara, specifically the Takalar Sugar Factory located in South Sulawesi, represents a relevant case where employee performance plays a crucial role in supporting production activities. As a major contributor to regional sugar production, the company relies heavily on a large workforce to maintain operational efficiency (Arun & Sharma, 2025). However, challenges related to employee performance, such as low productivity, lack of motivation, and declining output, remain persistent issues that hinder organizational growth (Destian et al., 2025).

The work environment is one of the primary factors influencing employee performance. The work environment includes all physical and non-physical elements surrounding employees, such as tools, materials, work methods, and organizational arrangements (Ahmad et al., 2022). A conducive work environment is characterized by safety, comfort, and support for productivity (Rezkiyanti et al., 2025). However, preliminary observations at PT. Sinergi Gula Nusantara Takalar indicate that the existing work environment is not fully supportive. Issues such as poorly organized workspaces, inadequate partitioning, inconsistent temperature conditions, excessive noise during production, and unpleasant odors from factory waste create discomfort for employees. These conditions can negatively affect employees' psychological well-being and reduce their ability to perform effectively. As a result, the organization faces challenges in achieving optimal productivity levels.

Empirical data further supports the existence of performance issues within the company. In 2024, PT. Sinergi Gula Nusantara Takalar set a production target of 15,131 tons; however, the actual output reached only 10,584 tons, equivalent to approximately 69% of the target. This significant gap of 4,547 tons suggests inefficiencies in production processes and potential shortcomings in workforce performance. Factors such as suboptimal raw materials, weather conditions, and operational constraints may contribute to this issue, but employee performance remains a central concern. A non-conducive work environment combined with low motivation levels can lead to decreased productivity, ultimately affecting organizational outcomes (Wardani, 2024). Therefore, understanding the determinants of employee performance becomes essential for improving organizational effectiveness.

Recent studies have extensively examined the relationship between work environment, motivation, and employee performance (Listyarini & Nugroho, 2025). The work environment is defined as all physical and non-physical aspects that influence employees while performing their tasks, including temperature, lighting, cleanliness, and work facilities (Sedarmayanti, 2017). Environmental conditions significantly affect employees' attitudes and behaviors, which in turn influence performance outcomes (Isyandi, 2004). Empirical research demonstrates that a supportive work environment positively impacts employee performance by creating comfort and reducing work-related stress (Suandani et al., 2018). When employees feel comfortable in their work environment, they are more likely to complete tasks efficiently and achieve organizational

targets. In addition to the work environment, motivation is another crucial factor influencing employee performance. Motivation refers to the internal drive that encourages individuals to act and achieve specific goals.

Motivation originates from the Latin word “movere,” meaning to move or drive, highlighting its role in directing employees’ energy toward productive activities (Umami, 2020). Previous studies indicate that motivation is influenced by individual characteristics, work conditions, and social support systems (Prayogi et al., 2019). High levels of motivation can enhance employee engagement, commitment, and performance, whereas low motivation can lead to decreased productivity and job dissatisfaction. These findings suggest that both environmental and psychological factors play interconnected roles in shaping employee performance.

Despite the growing body of literature on this topic, inconsistencies remain in the findings regarding the relative influence of work environment and motivation on employee performance. Some studies emphasize the dominant role of physical work conditions, while others highlight the importance of intrinsic motivational factors. Moreover, most previous studies have been conducted in different industrial contexts, limiting their generalizability to specific sectors such as the sugar manufacturing industry. In the case of PT. Sinergi Gula Nusantara Takalar, limited empirical research has been conducted to simultaneously examine the combined effects of work environment and motivation on employee performance. This gap highlights the need for a context-specific study that integrates both variables to provide a more comprehensive understanding of employee performance determinants.

Furthermore, existing studies often focus on either environmental or motivational factors independently, without considering their interaction effects. This creates a gap between theoretical assumptions and empirical evidence, particularly in labor-intensive industries where both factors are equally important. The lack of integrated analysis limits the ability of organizations to design effective HR strategies that address multiple determinants of performance simultaneously. Therefore, this study aims to bridge this gap by examining the combined influence of work environment and motivation on employee performance within the specific context of PT. Sinergi Gula Nusantara Takalar.

Based on the gap analysis, this study seeks to answer the following research question: to what extent do work environment and motivation influence employee performance at PT. Sinergi Gula Nusantara Takalar? The primary objective of this research is to analyze the effect of work environment and motivation on employee performance, both partially and simultaneously. Additionally, this study aims to provide practical recommendations for improving HR management practices in the organization. The novelty of this research lies in its integrated approach, combining environmental and motivational factors within a specific industrial context that has received limited scholarly attention. By focusing on a sugar manufacturing company in South Sulawesi, this study contributes to the existing literature by offering empirical insights that are both contextually relevant and practically applicable.

Method

This study employs a quantitative research design grounded in the positivist paradigm to examine the influence of work environment and motivation on employee performance. The quantitative approach is considered appropriate for addressing the research question because it allows for the measurement of relationships between variables using statistical techniques and empirical testing. By applying a structured and objective methodology, the study seeks to produce generalizable findings that can explain causal relationships among variables. The design

is explanatory in nature, as it aims to test hypotheses regarding the effects of independent variables work environment and motivation on the dependent variable, namely employee performance. The use of multiple linear regression analysis further strengthens the suitability of this design, as it enables the researcher to analyze both partial and simultaneous effects of the independent variables.

The research was conducted at PT. Sinergi Gula Nusantara, Takalar Sugar Factory, located in Takalar Regency, South Sulawesi, Indonesia. This site was selected due to its relevance as a labor-intensive manufacturing organization where employee performance plays a critical role in achieving production targets. The study was carried out over a two-month period from January to February 2026. This time frame was considered sufficient to collect comprehensive data through multiple techniques, including observation, questionnaires, and documentation. The procedures followed in this study were organized sequentially, beginning with preliminary observation, instrument development, data collection, data validation, and finally statistical analysis. The population of this study consists of all employees working at PT. Sinergi Gula Nusantara Takalar, totaling 84 individuals. Given the relatively small population size, this study employs a saturated sampling technique (census method), in which all members of the population are included as respondents.

This sampling approach ensures that the data collected represents the entire population, thereby minimizing sampling bias and enhancing the accuracy of the findings. The use of a saturated sample is appropriate for this research because it allows for a comprehensive analysis of employee perceptions regarding work environment, motivation, and performance without the need for sampling estimation. This study utilizes both primary and secondary data sources. Primary data were collected directly from respondents through structured questionnaires, supported by observation and limited interviews with selected staff and management to gain contextual understanding. The questionnaire serves as the main research instrument and is designed to measure the perceptions of employees regarding the variables under study. Secondary data were obtained from company documents, including organizational profiles, employee records, and production reports, which provide supporting information for the analysis. The combination of primary and secondary data enhances the robustness of the study by allowing triangulation and validation of findings.

Data collection techniques in this study include observation, questionnaires, and documentation. Observation was conducted to examine the actual working conditions within the organization, including physical workspace arrangements, environmental factors, and operational processes. This method provides direct insights into the work environment and complements the data obtained from questionnaires. The questionnaire was developed using a Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree), enabling the quantification of respondents' perceptions. The instrument consists of several items representing each variable: work environment, motivation, and employee performance. Documentation techniques were used to collect secondary data from company archives and official records, which serve to strengthen the empirical evidence and provide additional context for the analysis.

The development of research instruments was based on established theoretical frameworks and prior empirical studies to ensure content validity. The work environment variable includes both physical and non-physical dimensions, such as temperature, lighting, workspace layout, interpersonal relationships, and organizational climate. The motivation variable is measured through indicators reflecting employees' needs, including physiological needs, safety, social belonging, and recognition. Meanwhile, employee performance is assessed based on indicators

such as quality of work, quantity of output, task execution, and responsibility. All variables are measured using a Likert scale to ensure consistency and comparability of responses. The operational definitions of these variables are clearly specified to ensure that the study can be replicated in similar contexts.

Prior to the distribution of the questionnaire, an expert validation process was conducted to ensure the content validity and appropriateness of the research instrument. The instrument was reviewed by two experts in the fields of Human Resource Management and research methodology who possess academic and professional experience relevant to the study variables. The experts evaluated the questionnaire items in terms of clarity, relevance, wording, and alignment with the theoretical constructs of work environment, motivation, and employee performance. Suggestions provided by the experts included refining several statements to improve readability, eliminating ambiguous wording, and ensuring that each indicator adequately represented the intended construct. Based on the feedback received, revisions were made to the instrument before it was administered to respondents. This expert validation process enhanced the quality of the questionnaire and ensured that the instrument accurately reflected the conceptual dimensions being measured, thereby strengthening the overall validity of the research.

To ensure the accuracy and consistency of the data, instrument testing was conducted through validity and reliability tests. The validity test aims to determine whether each questionnaire item accurately measures the intended construct. This is assessed by comparing the correlation coefficient (r -count) with the critical value (r -table) at a significance level of 0.05. Items with correlation values exceeding the threshold are considered valid. Reliability testing is conducted using Cronbach's Alpha to assess the internal consistency of the instrument. A Cronbach's Alpha value greater than 0.60 indicates that the instrument is reliable and capable of producing consistent results across repeated measurements. These procedures ensure that the data collected are both valid and reliable, thereby supporting the credibility of the findings.

Prior to the distribution of the questionnaire, an expert validation process was conducted to ensure the content validity and appropriateness of the research instrument. The instrument was reviewed by two experts, consisting of a senior lecturer in Human Resource Management and a lecturer in research methodology, each holding a doctoral degree and having extensive experience in quantitative research and instrument development. The experts evaluated the questionnaire items in terms of clarity, relevance, wording, and alignment with the theoretical constructs of work environment, motivation, and employee performance. The assessment indicated that the questionnaire items were generally appropriate and representative of the constructs being measured. Nevertheless, several recommendations were provided, including improving the wording of certain statements, simplifying complex expressions, and ensuring consistency in the measurement indicators. Based on these suggestions, revisions were made before the questionnaire was distributed to respondents. This expert validation process enhanced the quality of the instrument and strengthened the content validity of the research, ensuring that the questionnaire accurately measured the intended variables.

Hypothesis testing in this study is conducted using partial (t -test) and coefficient of determination (R^2) analysis. The t -test is used to examine the significance of the effect of each independent variable on the dependent variable individually. A significance level of 0.05 is applied, and variables with p -values less than 0.05 are considered to have a statistically significant effect. The coefficient of determination (R^2) is used to measure the proportion of variance in employee performance explained by the independent variables. A higher R^2 value

indicates a stronger explanatory power of the model. These statistical techniques provide precise and measurable results, enabling the researcher to draw valid conclusions regarding the relationships among variables. Overall, the methodology adopted in this study is systematically designed to ensure clarity, replicability, and scientific rigor. Each step, from research design to data analysis, is carefully structured to address the research questions effectively. The use of standardized instruments, appropriate sampling techniques, and robust statistical analysis ensures that the findings are reliable and valid. By providing detailed descriptions of procedures and measurements, this study allows other researchers to replicate or extend the research in similar contexts, thereby contributing to the advancement of knowledge in the field of human resource management.

Results

Analysis of Respondent Characteristics

Age-Based Characteristics

Table 1. Results of respondent characteristics based on age

Age	Frequency	Percent	Valid Percent	Cumulative Percent
20–30 Years	23	27.4	27.4	27.4
31–40 Years	37	44.0	44.0	71.4
41–50 Years	21	25.0	25.0	96.4
>50 Years	3	3.6	3.6	100.0
Total	84	100.0	100.0	

Based on the research results, the majority of respondents are aged 31–40 years (44%). This indicates that employees at PT Sinergi Gula Nusantara are within the productive age range and possess optimal working capacity. At this age, employees generally have sufficient work experience, demonstrate maturity in decision-making, and are capable of working effectively and responsibly. This condition supports improved organizational performance and productivity.

Gender-Based Characteristics

Table 2. Results of respondent characteristics based on gender

Gender	Frequency	Percent	Valid Percent	Cumulative Percent
Male	82	97.6	97.6	97.6
Female	2	2.4	2.4	100.0
Total	84	100.0	100.0	

Based on the findings, most respondents are male (97.6%). This indicates that the workforce at PT Sinergi Gula Nusantara is dominated by male employees. This condition may be due to the nature of work in the sugar factory, which generally requires physical strength, endurance, and direct involvement in production and field operations.

Educational Background Characteristics

Table 3. Results of respondent characteristics based on education level

Education Level	Frequency	Percent	Valid Percent	Cumulative Percent
High School	79	94.0	94.0	94.0
Diploma (D3)	1	1.2	1.2	95.2
Bachelor (S1)	4	4.8	4.8	100.0
Total	84	100.0	100.0	

The results indicate that most respondents have a high school education (94%). This shows that employees at PT Sinergi Gula Nusantara Takalar Sugar Factory are predominantly high school graduates, while the proportion of employees with higher education is relatively small.

Work Experience Characteristics

Table 4. Presents the distribution of respondents based on length of service

Work Experience	Frequency	Percent	Valid Percent	Cumulative Percent
1–5 Years	13	15.5	15.5	15.5
6–10 Years	25	29.8	29.8	45.2
10–15 Years	46	54.8	54.8	100.0
Total	84	100.0	100.0	

Based on the results, out of 84 respondents, employees with 10–15 years of service account for 54.8%, followed by those with 6–10 years (29.8%) and 1–5 years (15.5%). This indicates that employees are dominated by relatively long tenure, reflecting high levels of loyalty and job stability within the company. Employees with longer tenure generally possess greater experience, better task understanding, and stronger work skills, enabling them to contribute more effectively to organizational performance compared to those with shorter tenure.

Department-Based Characteristics

Table 5. Results of respondent characteristics based on department

Department	Frequency	Percent	Valid Percent	Cumulative Percent
Processing	31	36.9	36.9	36.9
Installation	51	60.7	60.7	97.6
QA (Quality Assurance)	1	1.2	1.2	98.8
Plantation	1	1.2	1.2	100.0
Total	84	100.0	100.0	

The results show that the majority of respondents work in the Installation department, with 51 employees or 60.7% of the total respondents. This indicates that most of the data were obtained from employees at the installation level in PT Sinergi Gula Nusantara Takalar Sugar Factory. Meanwhile, 31 respondents or 36.9% came from the Processing department, showing that this department also contributed substantially to the research data. In contrast, the QA (Quality Assurance) and Plantation departments each had only one respondent, representing 1.2% of the total respondents. This distribution suggests that the respondent composition was dominated by employees from technical and operational departments, particularly Installation and Processing, which are closely related to the main production activities of the company.

Descriptive Analysis of Variables

Table 6. Work environment variable (X1)

Indicator	SS (5)	S (4)	N (3)	TS (2)	STS (1)	Total	Mean
X1.1	47	35	1	0	1	379	4.51
X1.2	11	52	17	2	2	320	3.81
X1.3	26	51	7	0	0	355	4.23
X1.4	22	55	7	0	0	351	4.18
Average							4.18

The findings indicate that employees generally perceive the work environment at PT Sinergi Gula Nusantara Takalar Sugar Factory positively, as reflected by the average score of 4.18. A conducive work environment is essential because it directly influences employees' comfort, concentration, and productivity in performing their tasks (Sedarmayanti, 2017). Both physical and non-physical work environments are important factors that can affect employee

performance and job satisfaction (Sedarmayanti, 2017). Furthermore, a supportive work environment can enhance employee performance by reducing work-related stress and increasing work effectiveness (Suandani, 2018). Therefore, maintaining a comfortable and well-organized workplace is crucial for improving employee productivity and organizational performance.

Description of Motivation Variable (X2)

Table 7. Motivation variable (X2)

Indicator	SS	S	N	TS	STS	Total	Mean
X2.1	43	33	7	0	0	368	4.43
X2.2	32	44	7	0	0	357	4.30
X2.3	32	48	3	0	0	361	4.35
X2.4	35	45	4	0	0	363	4.37
X2.5	37	42	5	0	0	363	4.37
X2.6	44	39	1	0	0	374	4.51
X2.7	46	37	1	0	0	377	4.54
X2.8	33	38	8	5	0	348	4.19
X2.9	34	45	5	0	0	361	4.35
Average							4.38

The motivation variable obtained a high average score of 4.38, indicating that employees possess strong motivational levels in carrying out their responsibilities. Positive interpersonal relationships and recognition from colleagues appear to contribute significantly to employee motivation. Employees are more likely to perform effectively when their social and psychological needs are fulfilled (Umami, 2020). Employee motivation is also influenced by working conditions, social support, and recognition, all of which contribute positively to performance (Prayogi et al., 2019). These results suggest that enhancing motivational factors can strengthen employee commitment and improve organizational outcomes.

Description of Employee Performance Variable (Y)

Table 8. Employee performance variable (Y)

Indicator	SS	S	N	TS	STS	Total	Mean
Y1	27	52	4	1	0	357	4.25
Y2	33	50	1	0	0	368	4.38
Y3	33	50	1	0	0	368	4.38
Y4	30	51	3	0	0	363	4.32
Y5	38	45	1	0	0	373	4.44
Y6	34	49	1	0	0	369	4.39
Y7	36	48	0	0	0	372	4.43
Y8	40	44	0	0	0	376	4.48
Average							4.38

The employee performance variable achieved an average score of 4.38, indicating that respondents perceive their performance to be relatively high. Employees demonstrated strong responsibility, commitment, and reliability in completing assigned tasks. This finding supports the view that employee performance reflects the quality and quantity of work achieved in accordance with organizational expectations. The result is also consistent with previous studies showing that employees who experience supportive working conditions and high motivation tend to exhibit better performance outcomes. Therefore, employee performance at PT Sinergi Gula Nusantara can be considered satisfactory and capable of supporting the achievement of organizational objectives.

Research Instrument Testing

Multiple Linear Regression Results

Table 9. Multiple linear regression results

Variable	B	Std. Error	Beta	t	Sig.
Constant	5.628	2.672	-	2.107	0.038
Work Environment (X1)	0.359	0.158	0.184	2.282	0.025
Motivation (X2)	0.595	0.071	0.674	8.363	0.000

Based on Table 9, the multiple linear regression analysis indicates that both work environment and motivation have positive effects on employee performance. The regression equation is formulated as $Y = 5.628 + 0.359X_1 + 0.595X_2$. The coefficient of the work environment variable (0.359) indicates that an improvement in the work environment is associated with an increase in employee performance, assuming other variables remain constant. Similarly, the motivation coefficient (0.595) suggests that higher motivation contributes to better employee performance. The t-test results show that the work environment variable has a t-value of 2.282 with a significance value of 0.025, which is below the 0.05 significance level. This indicates that the work environment has a positive and significant effect on employee performance.

A supportive work environment enhances employee comfort, concentration, and effectiveness in completing tasks (Sedarmayanti, 2017). Physical and non-physical work environments play an important role in improving employee performance (Sedarmayanti, 2017). This finding is also supported by previous research showing that the work environment contributes to employee performance (Suandani, 2018). Furthermore, motivation has a t-value of 8.363 with a significance value of 0.000, indicating a stronger and more significant effect on employee performance. The higher coefficient value demonstrates that motivation is the dominant factor influencing employee performance at PT Sinergi Gula Nusantara Takalar Sugar Factory. Motivated employees tend to exhibit higher commitment, productivity, and performance (Umami, 2020; Prayogi et al., 2019). Overall, both variables significantly contribute to improving employee performance, with motivation showing the strongest influence.

Validity Test

The validity test aims to determine whether the research instrument accurately measures the intended variables.

Table 10. Validity Test Results

Variable	Item	r-value	Sig	r-table	Sig	Result
Work Environment	X1.1	0.529	0.000	0.2146	0.05	Valid

The results show that the research instrument has good validity, as indicated by correlation values ranging from 0.5 to 0.9 and significance values below 0.05. This confirms that all questionnaire items are valid and capable of accurately measuring the variables.

Reliability Test

The reliability test aims to assess the consistency of the research instrument.

Table 11. Reliability test results

Variable	Cronbach's Alpha	Number of Items
Work Environment	0.590	4
Motivation	0.869	9
Employee Performance	0.925	8

The results indicate that the instrument is reliable, as evidenced by Cronbach's Alpha values within the acceptable range. Values above 0.70 indicate that the instrument consistently measures the variables and produces stable results.

Classical Assumption Tests

Normality Test

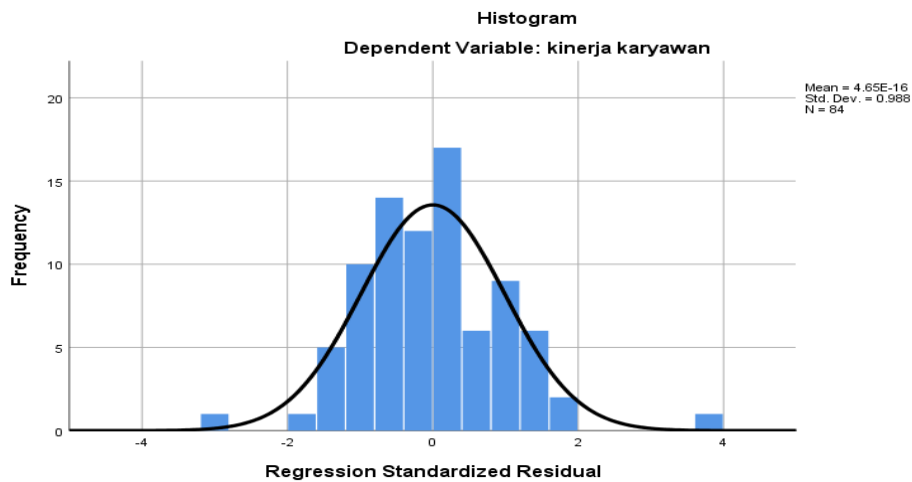


Figure 1. Normality test results

The histogram shows that residual data follow a normal distribution pattern, indicated by a symmetrical curve around zero. Therefore, the normality assumption is satisfied.

Multicollinearity Test

Table 12. Multicollinearity test results

Variable	Tolerance	VIF
Work Environment	0.727	1.375
Motivation	0.727	1.375

The tolerance values (>0.10) and VIF values (<10) indicate that there is no multicollinearity among the independent variables.

Heteroscedasticity Test

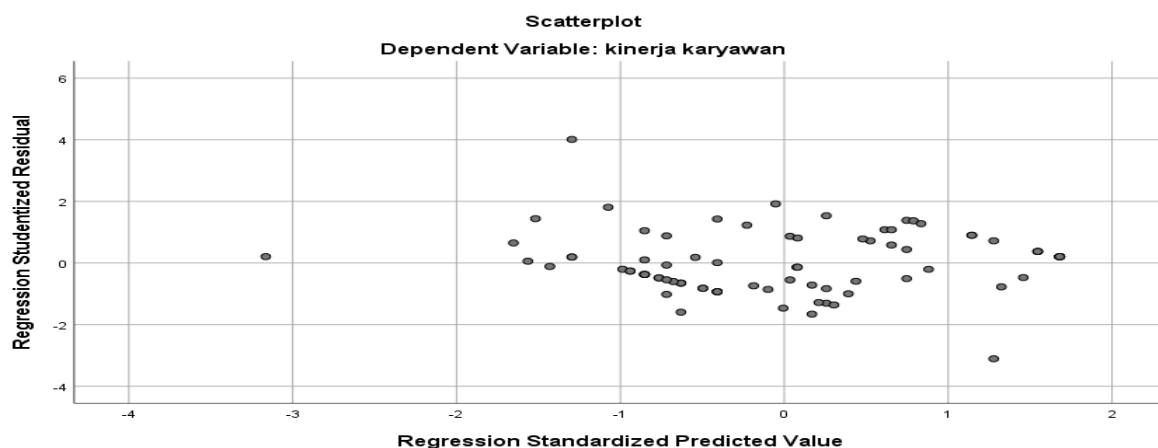


Figure 2. Presents the heteroscedasticity test results

The scatterplot shows that residuals are randomly distributed without forming a specific pattern, indicating that the regression model does not suffer from heteroscedasticity.

Hypothesis Testing

Partial Test (t-test)

The results show that the work environment variable has a t-value of 2.282, which is greater than the t-table value of 1.664, indicating a significant effect on employee performance. Similarly, the motivation variable has a t-value of 8.363 with a significance value of 0.000, indicating a very strong and significant effect. This suggests that motivation is the dominant factor influencing employee performance.

Coefficient of Determination (R^2)

Table 13. Coefficient of determination (R^2)

R	R Square	Adjusted R Square	Std. Error
0.786	0.617	0.608	2.136

The coefficient of determination (R^2) value of 0.617 indicates that work environment and motivation jointly explain 61.7% of the variation in employee performance. This finding demonstrates that both variables are important determinants of employee performance within PT Sinergi Gula Nusantara Takalar Sugar Factory. However, the remaining 38.3% of the variation is explained by other factors not included in the present study, such as leadership style, compensation, training, organizational culture, and job satisfaction. This result is consistent with human resource management theories, which emphasize that employee performance is influenced by multiple organizational and individual factors. Consequently, future studies are encouraged to incorporate additional variables to provide a more comprehensive understanding of employee performance determinants.

Discussion

The Effect of Work Environment on Employee Performance

Based on the results of testing the first hypothesis (H1), the work environment variable was found to have a positive and significant effect on employee performance at PT Sinergi Gula Nusantara, Takalar Sugar Factory. Therefore, the first hypothesis (H1) is accepted. This finding is supported by the t-test results, which indicate that the calculated t-value is greater than the t-table value ($2.282 > 1.664$), with a significance value of 0.025, which is lower than the predetermined significance level of 0.05. These results confirm that the work environment contributes significantly to employee performance improvement. The coefficient of determination analysis indicates that the work environment and motivation variables jointly explain 61.7% of the variation in employee performance ($R^2 = 0.617$), while the remaining 38.3% is influenced by other factors not examined in this study. This finding demonstrates that the work environment represents one of the important determinants of employee performance within the organization. The ability of employees to achieve organizational goals is influenced not only by individual capabilities but also by the environmental conditions in which they perform their work activities.

The work environment encompasses all physical and non-physical conditions surrounding employees while carrying out their duties, including workplace layout, lighting, temperature, interpersonal relationships, communication patterns, and organizational climate. A supportive work environment provides employees with a sense of comfort, security, and convenience,

which encourages them to perform their duties effectively and efficiently. Employees who work in a conducive environment are more likely to maintain concentration, minimize errors, and achieve higher productivity levels compared to employees working in unfavorable conditions (Santoso et al., 2024). The findings of this study indicate that employees at PT Sinergi Gula Nusantara Takalar Sugar Factory perceive the work environment as an important factor influencing their work performance. A conducive working atmosphere enables employees to complete tasks with greater focus and efficiency.

In contrast, poor environmental conditions such as excessive noise, inadequate workspace arrangements, uncomfortable temperatures, and insufficient facilities may reduce employee concentration and negatively affect performance outcomes. These findings suggest that organizational efforts to improve workplace conditions can generate positive impacts on employee productivity and organizational effectiveness. From a theoretical perspective, the results support the work environment theory proposed by Sedarmayanti, which emphasizes that both physical and non-physical environmental factors play a significant role in shaping employee attitudes, motivation, and performance. A favorable work environment creates positive psychological conditions that encourage employees to demonstrate greater commitment and responsibility toward their work tasks. Employees who perceive their work environment positively tend to experience higher job satisfaction, which ultimately contributes to improved performance outcomes (Sedarmayanti, 2017).

Furthermore, these findings are consistent with organizational behavior theory, which suggests that employee behavior is strongly influenced by environmental stimuli. According to this perspective, organizational performance can be enhanced by creating workplace conditions that support employee well-being and productivity. Environmental factors serve as external motivators that influence employees' willingness to perform their responsibilities effectively. Therefore, organizations that invest in improving workplace conditions are more likely to achieve superior performance outcomes. The results of this study also support previous empirical findings. Research found that the work environment significantly influences employee performance, indicating that employees perform more effectively when supported by favorable workplace conditions (Oktavianti & Wianti, 2026). Similar findings also concluded that the work environment has a significant positive effect on employee performance (Nugroho & Liliyan, 2026).

The consistency between the present study and previous studies strengthens the argument that a supportive work environment is a critical factor in improving employee performance across different organizational contexts. In the context of PT Sinergi Gula Nusantara Takalar Sugar Factory, the findings imply that management should continue improving workplace facilities, maintaining occupational safety standards, optimizing workspace arrangements, and fostering positive relationships among employees. These initiatives can enhance employee comfort and productivity while supporting the achievement of organizational objectives. Therefore, the acceptance of H1 confirms that improvements in the work environment are likely to contribute significantly to enhanced employee performance.

The Effect of Motivation on Employee Performance

Based on the results of testing the second hypothesis (H2), motivation was found to have a positive and significant effect on employee performance at PT Sinergi Gula Nusantara, Takalar Sugar Factory. Therefore, the second hypothesis (H2) is accepted. The t-test results indicate that the calculated t-value (8.363) is substantially greater than the t-table value (1.664), with a significance value of 0.000, which is below the significance threshold of 0.05. These findings

demonstrate that motivation has a strong influence on employee performance. The coefficient of determination analysis further indicates that motivation, together with the work environment variable, explains 61.7% of the variation in employee performance. This result suggests that employee performance is strongly associated with employees' motivational levels.

Employees who possess higher motivation tend to demonstrate greater enthusiasm, commitment, and persistence in performing their work responsibilities. Motivation refers to the internal and external forces that stimulate employees to act and direct their efforts toward achieving organizational goals. Motivation plays a crucial role in influencing employee behavior because it determines the intensity, direction, and persistence of work-related efforts. Employees with strong motivation are more willing to exert additional effort, overcome challenges, and achieve higher performance levels compared to those with lower motivation levels. The findings reveal that motivation is the most dominant factor influencing employee performance in this study, as indicated by its higher regression coefficient and t-value compared to the work environment variable. This result implies that psychological factors play a more substantial role than environmental factors in determining employee performance within PT Sinergi Gula Nusantara Takalar Sugar Factory.

Employees who are motivated are more likely to complete tasks efficiently, maintain discipline, and contribute positively to organizational success. One important source of employee motivation is the provision of rewards, recognition, incentives, and career development opportunities. Employees who perceive that their contributions are recognized and rewarded fairly tend to exhibit higher levels of commitment and performance. The availability of promotional opportunities and professional development programs can further strengthen employees' willingness to achieve organizational targets. These findings are consistent with reinforcement theory, which states that behavior followed by positive consequences is likely to be repeated. When employees receive rewards or recognition for their achievements, they tend to maintain or improve their performance because they associate positive outcomes with their work efforts. Consequently, motivational practices become important managerial tools for encouraging desirable employee behaviors and improving organizational effectiveness. The results also support motivational theories proposed by Maslow and Herzberg, which emphasize the importance of fulfilling employee needs and providing motivational factors to enhance performance.

Employees whose physiological, safety, social, esteem, and self-actualization needs are fulfilled tend to demonstrate higher levels of motivation and productivity. Similarly, achievement, recognition, responsibility, and opportunities for advancement serve as important motivational factors that encourage superior performance. The findings are consistent with previous empirical studies. Work motivation has been found to have a significant positive effect on employee performance (Prahesti & Astawinetu, 2023). Similar findings also show that motivation significantly influences employee performance within public sector organizations (Afriyanti & Murniyati, 2026). The consistency of these findings across different organizational contexts strengthens the conclusion that motivation is one of the most important determinants of employee performance.

In the context of PT Sinergi Gula Nusantara Takalar Sugar Factory, the findings suggest that management should prioritize motivational strategies, including performance-based rewards, employee recognition programs, career advancement opportunities, and supportive leadership practices. Such initiatives can enhance employee engagement, commitment, and productivity

while contributing to organizational success. Therefore, the acceptance of H2 confirms that higher employee motivation leads to significantly improved employee performance.

Conclusion

This study was conducted to examine the effect of work environment and motivation on employee performance at PT Sinergi Gula Nusantara, Takalar Sugar Factory. The findings successfully answer the research question and achieve the research objective by demonstrating that both work environment and motivation have positive and significant effects on employee performance. The results of the t-test indicate that the work environment significantly influences employee performance, as evidenced by a t-value of 2.282 and a significance value of 0.025 ($p < 0.05$). Similarly, motivation has a positive and significant effect on employee performance, with a t-value of 8.363 and a significance value of 0.000 ($p < 0.05$). Among the two variables, motivation was found to be the most dominant factor affecting employee performance, as indicated by its higher regression coefficient and t-value. Furthermore, the coefficient of determination (R^2) value of 0.617 indicates that 61.7% of the variation in employee performance can be explained by work environment and motivation, while the remaining 38.3% is influenced by other factors not included in the research model.

These findings confirm that environmental and psychological factors significantly improve employee performance in the manufacturing sector, supporting previous research on the importance of conducive work environments and employee motivation. Organizations should enhance workplace conditions, provide fair reward systems, promote career development, and strengthen supportive leadership to improve engagement and performance. However, this study has several limitations. It was conducted in a single manufacturing company and examined only two independent variables, limiting the generalizability and scope of the findings. In addition, reliance on questionnaire-based quantitative data may not fully capture employees' experiences. Future research should include larger and more diverse samples, examine additional organizational and human resource variables, and employ mixed-method approaches to provide a more comprehensive understanding of employee performance determinants.

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References

- Afriyanti, A., & Murniyati, M. (2025). Pengaruh lingkungan kerja dan motivasi kerja terhadap kinerja pegawai Direktorat Perlindungan Perkebunan: The influence of work environment and work motivation on the performance of employees of the Plantation Protection Directorate. *Jurnal Manajemen Ekonomi dan Akuntansi*, 2(2), 397–403. <https://doi.org/10.63921/jmaeka.v2i2.330>
- Ahmad, A. J., Mappamiring, M., & Mustari, N. (2022). Pengaruh lingkungan kerja terhadap kinerja pegawai di Dinas Pendidikan dan Kebudayaan Kabupaten Bulukumba. *Kajian Ilmiah Mahasiswa Administrasi Publik (KIMAP)*, 3(1), 287–298. <https://doi.org/10.26618/kimap.v3i1.7325>
- Arfah, M. (2026). The influence of human resource management practices on organizational performance: Systematic literature review in various industrial sectors. *Income Journal of Economics Development*, 6(1), 16–24. <https://pusdig.web.id/ekonomi/article/view/497>

- Arun, A., & Sharma, P. K. (2025). Operational efficiency and capacity utilisation in the Haryana Cooperative Sugar Mills Ltd: A comparative analysis. *International Journal of English Literature and Social Sciences*, 10(6), 560–568. <https://dx.doi.org/10.22161/ijels.106.80>
- Budimansyah, B., & Axel, L. (2023). Penerapan strategi pengelolaan sumber daya manusia dalam menghadapi tantangan globalisasi industri. *Jurnal Ilmiah Manajemen Ekonomi dan Akuntansi (JIMEA)*, 1(2), 48–55. <https://doi.org/10.62017/jimea.v1i2.270>
- Dewi, N. M. A. K., Sadjuni, N. L. G. S., & Diwyarthi, N. D. M. S. (2024). Pengaruh lingkungan kerja terhadap kinerja karyawan di Hotel PRL. *TOBA: Journal of Tourism, Hospitality, and Destination*, 3(4), 153–159. <https://doi.org/10.55123/toba.v3i4.4434>
- Destian, R., Nugraha, A. T., Permata, N. S., & Islami, M. S. N. (2025). The role of work motivation in linking organizational support and work environment to employee performance at PT RST. *KINERJA*, 29(2), 216–233. <https://doi.org/10.24002/kinerja.v29i2.11623>
- Isyandi, B. (2004). *Manajemen sumber daya manusia dalam perspektif global*. UNRI Press. <https://dpk.kepriprov.go.id/opac/detail/wrqg5>
- Lamama, A. (2023). The influence of motivation and human resource development on employee performance at the Sendana Subdistrict Office in Majene Regency. *Income Journal of Economics Development*, 3(2). <https://doi.org/10.54065/ijed.3.2.2023.175>
- Listyarini, A. J., & Nugroho, S. H. (2025). The influence of work motivation, reward, work environment, and job satisfaction on employee performance in concrete iron companies in Indonesia. *International Journal of Business Studies*, 8(2), 174–185. <https://doi.org/10.9744/petraijbs.8.2.174-185>
- Nugroho, A., & Liliyan, A. (2026). Pengaruh lingkungan kerja, disiplin, dan motivasi terhadap kinerja karyawan pada PT. Antar Mitra Sembada Solo. *INOMATEC: Jurnal Inovasi dan Kajian Multidisipliner Kontemporer*, 1(03), 2422–2431. <https://portalpublikasi.com/index.php/inomatec/article/view/983>
- Oktavianty, S., & Wianti, W. (2026). Pengaruh motivasi kerja dan lingkungan kerja terhadap kinerja pegawai di Kantor Kelurahan Jatiwaringin. *ULIL ALBAB: Jurnal Ilmiah Multidisiplin*, 5(4), 509–517. <https://doi.org/10.56799/jim.v5i4.16124>
- Prahesti, Y., & Astawinetu, E. D. (2023). Pengaruh stres kerja, lingkungan kerja, dan disiplin kerja terhadap kinerja karyawan pada PT. Karmand Mitra Andalan Surabaya. *Jurnal Eksekutif*, 20(1 Juni), 74–94. <https://doi.org/10.60031/pq7bb557>
- Prayogi, M. A., Koto, M., & Arif, M. (2019). Kepuasan kerja sebagai variabel intervening pada pengaruh *work-life balance* dan stres kerja terhadap *turnover intention*. *Jurnal Ilmiah Manajemen dan Bisnis*, 20(1), 39–51. <https://doi.org/10.30596/jimb.v20i1.2987>
- Rezkiyanti, F., Sjahrudin, H., Niswaty, R., & Amal, M. I. (2025). The influence of the work environment on employee work discipline at the Gowa Regency Central Statistics Agency Office. *International Journal of Administration and Education (IJAE)*, 2(3), 108–120. <https://doi.org/10.70188/7sx20641>
- Santoso, K. R., Adriansyah, A., Simatupang, B. M., Joyosumarto, S., & Haryanti, E. (2024). Pengaruh beban kerja dan lingkungan kerja terhadap *turnover intention* dengan *stress* kerja sebagai variabel intervening. *Jurnal Ekonomi, Manajemen dan Perbankan (Journal of Economics, Management and Banking)*, 10(2), 177–194. <https://doi.org/10.35384/jemp.v10i2.581>

- Sedarmayanti. (2017). *Perencanaan dan pengembangan sumber daya manusia untuk meningkatkan kompetensi, kinerja, dan produktivitas kerja*. Refika Aditama.
<https://sinta.kemdiktisaintek.go.id/authors/profile/6032357/?view=books>
- Suandani, A., Lie, D., Butarbutar, M., & Nainggolan, N. T. (2018). Pengaruh motivasi dan lingkungan kerja terhadap kinerja karyawan pada PT Perkebunan Nusantara IV Unit Usaha Balimbingan. *Maker: Jurnal Manajemen*, 4(2), 1–9.
<https://maker.ac.id/index.php/maker/article/view/93>
- Umami, R. T. (2020). Pengaruh motivasi kerja dan lingkungan kerja terhadap kinerja karyawan di Pabrik Gula Ngadiredjo Kediri. *BIMA: Journal of Business and Innovation Management*, 2(2), 118–134. <https://doi.org/10.33752/bima.v2i2.133>
- Wardani, A. (2024). Pengaruh motivasi kerja dan lingkungan kerja terhadap produktivitas kerja karyawan. *Jurnal Kewirausahaan dan Inovasi*, 3(4), 998–1011.
<https://doi.org/10.21776/jki.2024.03.4.06>