

The Effect of Work Discipline and Work Environment on Employee Performance at PT. Perkebunan Nusantara I Region 7

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Abstract

The purpose of this study is to analyze the influence of work discipline and work environment on employee performance. The research was conducted at PT. Nusantara Plantation I Regional 7. The sample of this study is employees at PT. Nusantara I Regional 7 Plantation, which totals 70 people, uses a quantitative method with SEM-PLS analysis techniques. The data used is primary and secondary data. The results of this study show that work discipline has a significant effect on employee performance, the work environment has a significant effect on employee performance. Integrated work and work environment have a significant positive effect on employee performance.

Keywords: Employee Performance, Work Discipline, Work Environment

1. Introduction

Companies are established with a purpose, which may include profit or social goals. To achieve this goal, each company has been supported by the resources it owns. Properly managing and running the company's resources is the company's task; with sound resource management, the company's main goals will be achieved. To manage and run all resources systematically and in an adequately organized manner, the company needs management. The people who drive management are one of the company's resources, called human resources.

The key resource for achieving the company's vision and mission is human resources (HR). Human resources are organizational elements that have an important role in all activities in the organization. The important role of human resources is evidenced by the success of public organizations in the implementation, determined by the quality of human resources. Therefore, human resource management must be carried out in such a way that it has the usability to successfully achieve the organization's mission and goals. ([Estiana, Karomah, 2023](#))

The important thing in managing human resources is about employee performance. Performance is the output of a person who carries out his duties according to the given standards, both in quantity and quality. Performance is basically what an employee does or does not do in carrying out his job. Employee performance is often interpreted as the achievement of tasks where the level of organizational performance is shown through the suitability of the

work program implemented by the employee to achieve the organization's vision, mission, and goals. If high enthusiasm can be created from employees, then the organization can run smoothly supported by something called performance. ([Lestari, 2020](#)) ([Ilham, 2019](#))

In an organization, success in achieving goals is highly dependent on employee performance. Good performance will increase the company's productivity, efficiency, and competitiveness. According to, performance is influenced by several factors, such as competence, motivation, leadership, as well as discipline and work environment. Therefore, companies need to pay attention to factors that can affect employee performance, one of which is work discipline and work environment. ([Mangkunegara, 2016](#))

According to , work discipline is a form of employee compliance with company rules as shown through discipline of time, duties, and responsibilities at work. Work discipline is very important because it affects the effectiveness and efficiency of individual and organizational performance as a whole. Work discipline is one of the main factors that affect employee performance. Discipline also contains the meaning of an attitude of respect for the company's rules and regulations, which exist within employees, which causes employees to be able to voluntarily adjust to the company's rules and regulations. Work discipline is a person's behavior that is in accordance with existing rules, work procedures, or discipline is an attitude of behavior and deeds that are in accordance with organizational rules, both written and unwritten. Employees who often violate or ignore company regulations mean that the employee has poor work discipline. Employees who are subject to the company's rules and regulations describe the existence of good disciplinary conditions. ([Rivai, 2014](#)) ([Hasibuan, 2019](#)) ([Ramon, 2019](#)) ([Hamali, 2018](#))

Work discipline can be interpreted as employee awareness and compliance with rules, policies, and procedures that have been set by the company. Research conducted by shows that work discipline and work environment together have a positive and significant effect on employee performance. Employees who have high work discipline will carry out their duties well, on time, and have great responsibility for their work. On the other hand, lack of work discipline can cause various problems such as delays in work, absenteeism without a clear reason (high absenteeism), and low employee productivity. ([Suryadi, 2020](#)) ([Sari & Darmawan, 2022](#))

PT. Perkebunan Nusantara 1 Regional 7 (PTPN VII) is one of the State-Owned Enterprises (SOEs) engaged in plantations and agroindustry. The company has its headquarters in Palembang, South Sumatra, and manages various business units in several provinces, such as South Sumatra, Lampung, and Bengkulu. PTPN VII is engaged in the management and processing of plantation commodities, which include palm oil, rubber, sugarcane and tea. As a state-owned enterprise, PTPN VII has a strategic role in supporting food security and the national plantation industry. In addition, the company also contributes to the regional economy through job creation and partnerships with plasma farmers.

At PTPN VII, employee discipline is a challenge that needs attention. From the results of the analysis, the work discipline of employees at PTPN VII Palembang is quite good, which is shown by an average score above 4 for all indicators. Employees have high motivation, a strong sense of responsibility, and adequate skills in completing work on time. However, the results also indicate potential challenges such as work stress and excessive workload, which can affect the discipline of some employees. Therefore, workload management strategies, welfare improvement, and HR training and development are indispensable to maintain and improve work discipline.

By implementing this strategy, PTPN VII Palembang can maintain a high level of work discipline, increase employee satisfaction and productivity, and ensure optimal company performance in the long term.

In addition to work discipline, the work environment also plays an important role in determining employee performance. The work environment is a condition or circumstance that affects a person's performance. Dividing the work environment into two, namely the physical work environment and the non-physical work environment. The physical work environment includes factors such as cleanliness, lighting, temperature, noise, and work facilities. Meanwhile, the non-physical work environment is related to social relations between employees, communication between superiors and subordinates, and work culture in the organization. ([Eliyanto, 2018](#))

A good work environment can increase employee morale and satisfaction, thus positively impacting their performance. Research conducted by shows that the work environment has a positive and significant influence on employee performance. ([Supriyadi, 2021](#))

In general, the work environment at PTPN VII Palembang is quite good and provides comfort for employees. This can be seen from cleanliness, lighting, temperature, noise, and work equipment. However, several aspects still need to be considered to improve the work environment's comfort, including: Increasing Lighting in Certain Areas, Adjusting Room Temperature, Reducing Noise Disturbances, and Maintaining and modernizing work equipment.

By implementing improvements in these aspects, PTPN VII Palembang can further improve the comfort of the work environment, which will ultimately contribute to increasing productivity and employee welfare.

This research is closely related to several previous studies that examined the influence of work discipline and work environment on employee performance. In his research, it was concluded that high work discipline increases employees' sense of responsibility for their duties, ultimately improving performance. These findings support the focus of the variables in this study, namely work discipline as one of the important factors in encouraging employee performance. In addition, research shows that a comfortable and supportive work environment can increase employee productivity and work motivation. This strengthens the assumption that a conducive work environment is one of the important factors that affect employee work performance. Other research also supports the idea that work discipline is a significant internal factor in improving performance, especially in production-based companies such as PT. Nusantara Plantation I Regional 7 which is engaged in the plantation sector. ([Suryani, 2020](#)) ([Hidayat & Sari, 2019](#)) ([Putra & Dewi, 2021](#))

Although there are similarities in the variables studied, this study has several differences that distinguish it from previous studies. First, in terms of research objects, most of the previous research was conducted on manufacturing companies or government agencies, while this research was specifically conducted on state-owned companies in the plantation sector, namely PT. Nusantara Plantation I Regional 7. Second, geographically, this research was conducted in the Regional 7 work area which has different social and cultural characteristics from the previous research location. Third, the working conditions studied also have their own peculiarities because they include field and office work environments, which of course have different challenges and dynamics compared to companies in general. Thus, this research not

only strengthens the results of previous research, but also makes a new contribution in the context of the plantation industry, as well as offers relevant practical recommendations for company management in improving employee performance through improved discipline and work environment.

PT Perkebunan Nusantara I Regional 7 as a company engaged in the plantation sector has challenges in managing human resources to remain productive and have optimal performance. For this reason, it is necessary to analyze the extent of the influence of work discipline and work environment on employee performance in this company. By understanding the influence of these two factors, it is hoped that companies can take strategic steps in improving employee performance through improving discipline policies and improving work environment conditions.

2. Literature Review

2.1 Work Discipline

Work discipline is a tool that managers use to communicate with employees so that they are willing to change a behavior as well as as an effort to increase one's awareness and willingness to comply with all applicable company regulations and social norms. ([Sutrisno, 2019a](#)) Work discipline is a procedure that corrects or punishes subordinates if they violate rules or procedures. Discipline is a form of employee self-control and regular implementation and shows the level of seriousness of the work team in an organization. ([Afandi, 2021](#))

Work discipline is one of the components that determines the good and bad of a person's work, employees who are disciplined in work do all their activities voluntarily without coercion in accordance with the rules and forms of employee responsibility, which is a guarantee of success in achieving goals in the company. Work discipline is the conscious behavior and readiness of an employee who is happy to meet the standards set in the sense that discipline is not formed by coercion, but must be based on awareness and willingness to obey the rules. Work discipline is also shaped by the sense of responsibility everyone has. ([Hasyim, Putra, & Wijayati, 2022](#))

The function of discipline is very important and important to achieve goals because without good discipline it is difficult to achieve maximum goals. Discipline is the feeling of obedience and adherence to principles that are considered important, such as performing duties in the office and ensuring that employees are present at the working hours that have been set by the company. With a higher level of education, employee performance will improve, and employees will strive wholeheartedly to achieve the Company's goals. ([Jepry, & Mardika, 2022](#))

To avoid coaching punishment on a person or group, discipline is an effort to prevent violations of the provisions that have been mutually agreed upon during the activity. Disciplined as a manager's tool for collaborating with employees. The goal is to encourage employees to better understand the rules and social standards that apply in the company. If employees ignore company rules, they are considered to have poor work discipline. On the other hand, if employees comply with company regulations, they are considered to have good work discipline. ([Partika, Ismanto, & Rina, 2020](#))

Managers can use work discipline as a tool to communicate with their employees so that they are ready to change behavior and increase their awareness to comply with all applicable social regulations and norms in their company. Discipline is the attitude of an individual or group that ensures obedience to commands and takes the initiative to carry out necessary actions in

situations where commands do not exist.

Work discipline means that employees always arrive at work and get home on time. Comply with all applicable company regulations and social norms when performing all tasks. Basically, discipline is an action taken by employees who are responsible for the tasks they perform, focusing on the smallest possible problems and preventing possible mistakes. ([Pranitasari, 2021](#))

The indicators of work discipline according to them are as follows: ([Widyandari, Parwita, & Rismawan, 2022](#))

- a. Obey all company rules
- b. Use time effectively
- c. Responsibilities when performing tasks
- d. Attendance Rate

2.3. *Work Environment*

The work environment is something that exists in the environment of workers that can affect themselves in carrying out tasks such as temperature, humidity, ventilation, lighting, noise, workplace cleanliness and the adequacy of work equipment. ([Elburdah, 2021](#))

The performance environment is one of the most frequently done places by employees in carrying out their daily activities. A pleasant work environment will provide a sense of comfort to employees so that it can affect the improvement of employee performance. A pleasant work environment can also affect employees' emotional attitudes. If the employee feels comfortable with the work environment in which the employee works, then the employee will feel at home at their workplace, and the productivity of the employee will increase, so that working time is used effectively and efficiently. ([Abidin, 2023](#))

The work environment is the overall work facilities and infrastructure that exist around employees who are doing work that can affect work, work facilities and tools, cleanliness, lighting, tranquility, including the working relationship between people in the place. Broadly speaking, work environments are divided into 2 types: physical and non-physical. An explanation of the physical work environment, which is all physical conditions around the workplace such as facilities, ventilation, lighting, air temperature which can affect employee performance both directly and indirectly. While the non-physical work environment all conditions that occur are related to work relationships, either with the relationship of the boss or with the relationship of colleagues or with the relationship with subordinates. ([Putri et al. 2019](#))

Some of the indicators described in the physical environment include the following: ([Setiani, 2023](#))

- a. Lighting/lighting in the workplace,
- b. Workplace temperature/air temperature,
- c. Humidity in the workplace,
- d. Air circulation in the workplace, noise in the workplace, mechanical vibration in the workplace,
- e. Bad smell at work,
- f. Color schemes in the workplace,

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- g. Decoration at work,
- h. Safety in the workplace

2.3. *Employee Performance*

Performance is the achievement of the employee's target of the assigned task, as well as the ability to achieve the agreed target. Also, it has a blessed report record of the function of a job or a certain job within a certain period of time and, and high performance has a very crucial role in achieving goals in today's competitive business and organizational world. Performance is the result of work that is able to be completed by employees in carrying out the tasks that have been given by the company based on skills, experience and seriousness as well as time. ([Chairunnisah, & Mataram, 2021](#)) ([Khaerunisa, & Marhadi, 2023](#)) ([Farhan, 2023](#))

The performance of results or the overall level of success of a person during a certain period in carrying out a task compared to various possibilities, such as work output standards, targets, goals, or criteria that have been predetermined and mutually agreed. Employee performance is one of the benchmarks in assessing the performance of employees who work in a company. Employee performance can be influenced by many factors both internally and externally. ([Ramban, 2022](#))

The results of the work achieved by a person in completing his responsibilities are the meaning of performance. The level of success of a person in carrying out a task as a whole in a certain period is also called performance. The completion of tasks and responsibilities by a group of people in an organization can also be called performance. In a predetermined target, it is necessary to set an assessment as a form of attention to the performance of employees because at the same time employees need the assessment as feedback. Productivity is very directly related to human resources, so this is very important for company leaders to pay attention to. If productivity increases, the company's goal of earning profits will also increase. This increase in productivity is closely related to the performance of employees who are human resources in the company, so that human resources are a very important asset in the company ([Abidin, 2023](#))

The Performance Indicators according to ([Mufida, and Kurniati, 2021](#)) :

- a. Quality
- b. Quantity
- c. Punctuality
- d. Effectiveness
- e. Independence

2.4. *Relationship Between Variables (The Influence of Work Discipline on Employee Performance)*

Work discipline is one of the important factors that can improve employee performance in an organization. Work discipline reflects employees' compliance with company regulations, timely attendance, and commitment to carrying out duties and responsibilities. Several studies state that work discipline has a significant effect on employee performance.

([Santiago & Syahnur, 2019](#)) In his research on employees in the South Sulawesi KSDA Field, it was found that work discipline contributes significantly to improving employee performance. The results of this study show that the higher the level of work discipline, the better the

performance of employees in carrying out their duties.

Similar things were also found in a study by researchers who examined the influence of work discipline and job satisfaction on employee performance at PT. Leo Utama Motor Batam. The results show that work discipline has a positive and significant influence on employee performance, both partially and simultaneously with the variable job satisfaction. ([Ma'rufah, 2019](#))

From these studies, it can be concluded that good work discipline can create a more structured work environment, improve work efficiency, and reduce the rate of errors or violations at work.

2.5. The Influence of the Work Environment on Employee Performance

The work environment is an essential factor that affects employee performance in an organization. A conducive work environment can increase productivity, job satisfaction, and employee well-being. On the other hand, a less supportive work environment can reduce employee morale and performance. Several previous studies have examined the relationship between the work environment and employee performance.

Research by ([Khotimah, 2021](#)) This study found that the physical and non-physical work environment had a partial and significant effect on employee performance at Toyota Auto 2000 Car Dealers Pangkalan Bun Sub-Branch. This shows that both the physical and social aspects of the work environment play an essential role in improving employee performance.

Based on the research across these studies, a conducive work environment plays an important role in improving employee performance. Factors such as comfort, adequate facilities, and a positive work atmosphere can motivate employees to work more effectively and efficiently. Therefore, companies need to pay attention to and improve the quality of the work environment to achieve optimal employee performance.

2.6. The Influence of Work Discipline and Work Environment on Employee Performance

Work discipline and work environment are closely related in determining employee performance levels. When employees work in a supportive and comfortable environment, they tend to have better discipline and are more motivated to deliver optimal work results.

Research by states that the combination of high work discipline and a conducive work environment contributes significantly to improving employee performance in organizations. In the study, it was found that companies with good discipline policies and a comfortable work environment have higher levels of employee productivity compared to companies that pay less attention to these two aspects. ([Sutrisno, 2019b](#))

This study examines the influence of work discipline and work environment on employee performance at PT. ABC. The results of the study show that lack of discipline in work responsibilities and a less conducive environment are factors that cause a decline in employee performance. ([Bachtar, 2021](#))

3. Research Method

The object of research is a goal or something that a researcher researches for further research. This research focuses on work discipline, work environment as independent variables. Employee performance as a dependent variable. The object of this research was conducted at PT. Nusantara Plantation I Regional 7.

The method in this study uses a type of quantitative research that is used to measure the strength of the relationship between dependent variables and independent variables in a population in the study. The data used in this research are primary data collected through questionnaires distributed to respondents and then processed using SmartPLS software.

This study focuses on analyzing the effect of the collected data on the research variables. The research instrument was designed to obtain accurate and relevant information from respondents, so that the data could be processed and interpreted to answer the research objectives. ([Amalia, Dianigati and Annisaa, 2022](#))

The population is the entire set of subjects or objects that possess certain characteristics defined by the researcher. It may consist of individuals, objects, events, or other measurable phenomena relevant to the study. In this research, the population includes all employees of PT. Perkebunan Nusantara I Regional 7, consisting of 120 individuals. ([Amin et al., 2023](#))

The sample in this study uses purposive sampling or non-probability sampling techniques, which are where the researcher chooses the sample deliberately because it is considered to represent certain characteristics that are relevant to the research objectives. This technique is used when researchers want to obtain more targeted and in-depth data from the subjects that are considered most relevant. Thus, the number of samples in this study is 70 employees. ([Sugiyono, 2019](#))

This research uses Structural Equation Modeling with Partial Least Squares (SEM-PLS) version 3.0 to test the relationships between variables. The PLS-SEM method is used because it is suitable for predictive analysis, does not require normally distributed data, and is effective for complex models with small to medium sample sizes. The analysis includes evaluating the outer model (validity and reliability of indicators) and the inner model (structural relationships between latent variables). In the structural model, PLS evaluates the relationships between latent variables using path coefficients and significance values. Unlike covariance-based SEM, PLS-SEM does not require normally distributed data, as it is based on a predictive, variance-based approach and applies non-parametric bootstrapping to test significance.

This study employs the Partial Least Squares (PLS) method, which involves both Outer Model and Inner Model analyses. PLS is a non-parametric technique that does not require assumptions of normal data distribution, making it suitable for variables measured on nominal, ordinal, interval, or ratio scales ([Ghozali, 2015](#)).

The sample size used in this study is sufficiently large, and all indicators have been carefully selected based on their relevance and representativeness. The Outer Model analysis evaluates the relationship between the indicator blocks and their corresponding latent variables. The assessment of the Outer Model is based on three criteria: Convergent Validity, Discriminant Validity, and Composite Reliability.

For the Inner Model, the t-statistic is used to test the hypotheses. A null hypothesis is rejected if the t-value exceeds the critical t-table value, indicating a significant relationship at the 5% significance level. The strength of the relationship between variables is determined by the coefficient of determination (R^2), which ranges from 0 to 1. This value indicates the proportion of variance in the dependent variable that can be explained by the independent variables (Ghozali, 2015). This methodological framework ensures that the measurement and structural models are rigorously evaluated, providing reliable and valid results for testing the proposed hypotheses.

3.1 Hypothesis Testing

This study applies Partial Least Squares Structural Equation Modeling (PLS-SEM) using SmartPLS software. PLS-SEM allows researchers to evaluate both Outer Model (measurement model) and Inner Model (structural model) to assess relationships among latent variables.

The analysis consists of three main components:

1. Outer Model – specifies the relationships between indicators and their corresponding latent variables. Each indicator's weight and significance are evaluated. Indicators are considered significant if the t-value exceeds 1.65 at a 5% significance level (one-tailed test).
2. Inner Model – specifies the relationships between latent variables. The path coefficient (weight) between latent variables is tested for significance using t-statistics. A path is considered significant if the t-value is greater than 1.65 at $\alpha = 0.05$ (one-tailed).
3. Weight Estimation – the value of the path coefficient indicates the strength and direction of the relationship between latent variables. The hypothesis is accepted if the path coefficient is positive and t-value exceeds the critical t-value; otherwise, the hypothesis is rejected.

This framework ensures a systematic evaluation of both the measurement and structural models, providing reliable results for hypothesis testing in PLS-SEM.

3.2 Operational Definitions and Variable Measurement

3.2.1 Operational Definition

1. Independent Variables

Independent variables (also called predictor variables) are variables that can influence or explain changes in other variables. These variables operate independently and are not affected by other variables in the study. In this research, independent variables are denoted as X. According to [Setyadi \(2022\)](#), the independent variables used in this study are:

- Work Discipline (X1)
- Work Environment (X2)

2. Dependent Variable

Dependent variables (also called outcome variables) are variables that are influenced or explained by one or more independent variables. They depend on the predictors and reflect the outcomes of changes in the independent variables. In this study, the dependent variable is denoted as Y. According to [Setyadi \(2022\)](#), the dependent variable in this study is:

- Employee Performance (Y).

3.2.2 Variable Measurement

In this study, the Likert scale was applied, similar to the Item Response Theory (IRT) approach. The Likert scale is used to measure respondents' perceptions, attitudes, or opinions toward certain variables. Respondents provide scores based on a set of answer categories, which are then coded numerically. These scores reflect the degree to which the respondents

agree or disagree with the statements, ranging from negative to positive responses (Squirt, 2020).

4. Findings and Discussions

PT Perkebunan Nusantara VII was established based on Government Regulation No.12 of 1996, which is a consolidation of PT Perkebunan X (Persero) in Lampung and South Sumatra Provinces, PT Perkebunan XXXI (Persero) Lampung and South Sumatra Provinces, PT Perkebunan XI (Persero) Development Project in Lahat Regency, South Sumatra Province, and PT Perkebunan XXIII (Persero) Development Project in Bengkulu Province as stated in the deed of establishment made before a Notary Harun Kamil, S.H., No. 40 dated March 11, 1996 and has obtained approval from the Minister of Justice of the Republic of Indonesia through Decree No. C2-8335. HT.01.01.TH.96 dated August 8, 1996 and has been announced in the supplement to the State Gazette of the Republic of Indonesia No. 80 dated October 4, 1996.

In 2014 based on Government Regulation Number 72 of 2014 dated September 17, 2014, concerning the Addition of State Capital Participation of the Republic of Indonesia to the Share Capital of the Company (Persero) PT Perkebunan Nusantara III, PT Perkebunan Nusantara VII (Persero) which was originally a Plantation State-Owned Enterprises has switched to PT Perkebunan Nusantara VII which is fully subject to Law No. 40 of 2007 concerning Limited Liability Companies. The company's Articles of Association have undergone several changes and the last amendment to the Company's Articles of Association is regarding the Statement of Decision of the Shareholders of the Company (Persero) PT Perkebunan Nusantara VII No:S-433/MBU/06/2019; No: DSPN/KPPS/33/VI/2019 concerning Changes in Share Types and Amendments to the Articles of Association of PT Perkebunan Nusantara VII which have been stated through Notary Nanda Fauz Iwan in Notary Deed No: 16 dated July 25, 2019. The amendment has been ratified and submitted by the Minister of Law and Human Rights of the Republic of Indonesia through Decree No.AHU-0056472.AH.01.02.2019 dated August 23, 2019 Currently, the Company's working area includes 3 (three) provinces consisting of 2 Representative Offices, 9 Units in Lampung Province, 12 Units in South Sumatra Province, and 3 Units in Bengkulu Province. Since its inception, the Company has been established to take part in implementing and supporting Government policies and programs in the field of economics and National Development in general and the plantation sub-sector in particular. This is all aimed at running businesses in the fields of agribusiness and agroindustry, as well as optimizing the use of the Company's resources to produce high-quality and highly competitive goods and services to obtain profits in order to increase the Company's value through the principles of the Limited Liability Company.

4.1 Description of Research Respondents

The data carried out in this research is primary data and secondary data, which is data that is researched directly from the object of research. There is a way to collect the data used, namely how to distribute questionnaires with a total of 70 respondents that are distributed to employees of PT. Nusantara Plantation 1 Regional 7. Of the 70 queries that are recalled and can be processed, the most important ones can be tested and analyzed. The level of curiosity returns can be seen in the table below.

Table 4. 1 Consumer Return Rate

Criteria	Sum	Percentage (%)
Distributed questionnaire	70	100%
Number of questionnaires that did not return	0	0%
Incomplete number of questionnaires	0	0%
Eligible Applicants	70	100%

Source: Primary Data (2025)

The table above shows that 70 questionnaires are distributed, and 70 questionnaires are filled out completely or a 100% questionnaire return rate

Table 4. 2 Distribution of questions by variables

Yes	Variable	Sum
1	Work Discipline	4
2	Work Environment	8
3	Employee Performance	5

Source: Managed 2025

Based on the respondents' long-term employment data at PT Perkebunan Nusantara I Regional 7, it is known that most respondents have a working period of 6 months to 3 years, totaling 42 people (60%). Meanwhile, respondents with 4–10 years of working experience and more than 10 years of working experience each accounted for 14 people (20%). This shows that the majority of respondents are employees with relatively new working periods.

Based on the results of the recapitulation of the assessment of employee performance at PT Perkebunan Nusantara I Regional 7, data was obtained from 70 respondents who assessed five statements using the Likert scale with five categories, namely strongly agree (5), agree (4), moderately (3), disagree (2), and strongly disagree (1). The results of the analysis show that all statements obtained an average score above 4.20, which means that all aspects of employee performance are in the "Excellent" category. The details of the assessment results are as follows: the first statement, "I am able to complete a better job than the standard," obtained a total score of 294 with an average score of 4.20; the second statement, "I was able to complete the work in the targeted amount," obtained a score of 300 with an average of 4.29; the third statement, "I completed the work according to the deadline," obtained a score of 294 and an average of 4.20; the fourth statement, "I can get the job done in the most appropriate and economical way," obtained a score of 301 with an average of 4.30; and the fifth statement, "I take full responsibility for my work," earned the highest score of 314 with an average of 4.49.

This reflects that the employees at PT Perkebunan Nusantara I Regional 7 have excellent performance, both in terms of work quality, quantity, punctuality, efficiency, and responsibility for the tasks given. The high score and consistency of values between statements also indicate that a positive work culture has been formed and is part of the organization's commitment to achieve optimal performance and overall company goals.

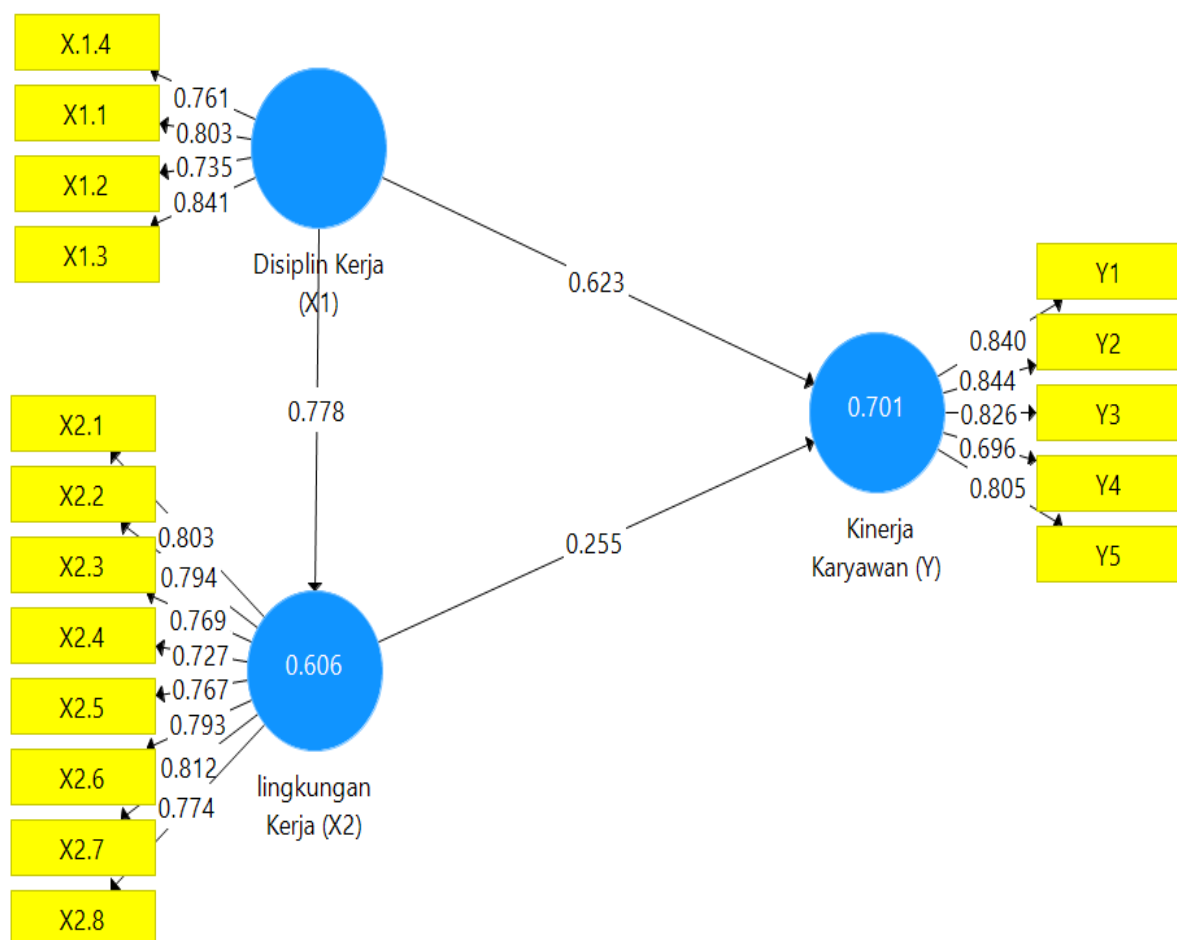
4.4 Model Evaluation

The evaluation of the PLS-SEM model using the SmartPLS 3.0 application is carried out through two main stages, namely the evaluation of the measurement model (outer model) and the evaluation of the structural model (inner model). The evaluation of the measurement model

aims to test the validity and reliability of latent constructs through confirmatory factor analysis. Furthermore, structural model evaluation and testing were carried out to determine the influence between latent constructs or variables in the model significantly.

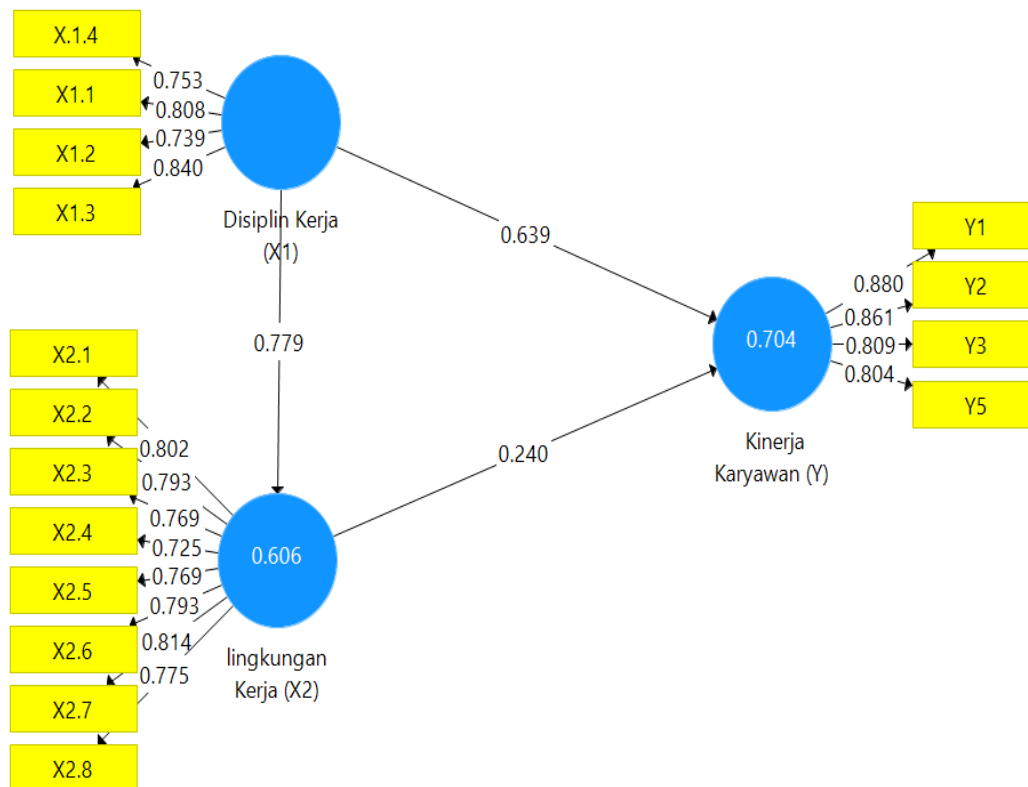
Measurement Model or Outer Model

The analysis of the Outer Model (Measurement Model) examines the relationships between indicator blocks and their corresponding latent variables. The Outer Model is evaluated based on three main criteria: Convergent Validity, Discriminant Validity, and Composite Reliability. These criteria ensure that the indicators reliably and validly measure the constructs they are intended to represent. Disiplin kerja (Work discipline), Lingkungan kerja (work environment), Kinerja Karyawan (employee performance)



Source: Smart-PLS Processed Data

Figure 4. 1 Outer Models Before Outlier



Source: Smart-PLS Processed Data

Figure 4. 2 Outer Models After Outlier

Table 4. 3 Average Variance Extracted (AVE)

	Mean Variance Extracted (AVE)	Information
Employee Performance (Y)	0,704	Valid
Work Discipline (X1)	0,618	Valid
Working Environment (X2)	0,609	Valid

Source: SEM PLS processed data

Based on the results of the construct validity test using the Average Variance Extracted (AVE) value, it is known that all variables in this study have met the convergent validity criteria. The AVE value for the variable Employee Performance (Y) was 0.704, Work Discipline (X1) was 0.618, and Work Environment (X2) was 0.609. All of these AVE values are above the minimum threshold of 0.50, which means that more than 50% of the variance of each indicator can be explained by its construct. Thus, it can be concluded that each construct in this research model has good validity and can be used for further analysis. This validity shows that the indicators used are able to represent variables consistently and relevantly

Composite Reliability (CR) is a measure to assess the internal consistency of indicators in a construct, especially in SEM analysis. CR is more accurate than Cronbach's Alpha because it takes into account the weight (loading) of each indicator. A good *Composite Reliability* value is above 0.70, which indicates high reliability, while a value below 0.60 is considered

unreliable. *Composite Reliability* is used to ensure that the indicator consistently represents the constructed being measured.

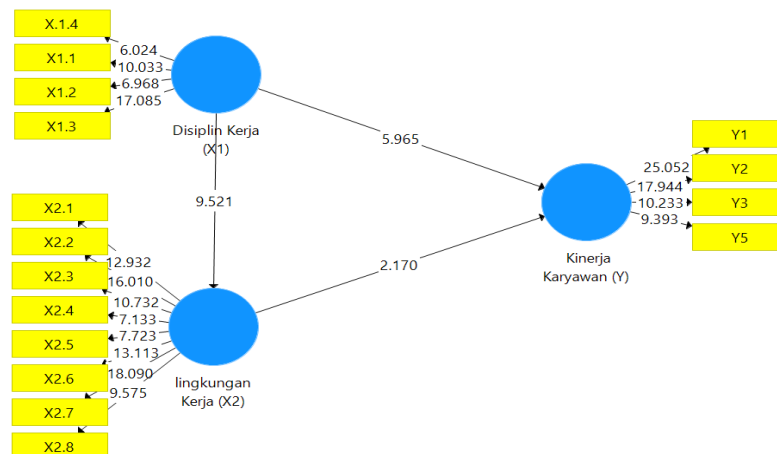
Table 4. 4 Composite Reliability

	<i>Composite Reliability</i>	Information
Employee Performance (Y)	0,905	Valid
Work Discipline (X1)	0,866	Valid
Working Environment (X2)	0,926	Valid

Source: SEM PLS processed data

Based on the results of the Composite Reliability calculation, the entire construct has a value above 0.70, which indicates that all variables of Employee Performance (0.905), Work Discipline (0.866), and Work Environment (0.926) have excellent reliability. Thus, the indicators used are declared consistent and reliable in measuring each construct.

The hypothesis test was carried out through testing the structural model (*inner model*) by looking at the R Square value as an indicator of *model goodness of fit*. The statistics used in this test are t-statistical values, where the resampling method allows the use of data that is not normally distributed and does not require a large sample size. The test results using *the bootstrapping technique* in the SmartPLS analysis are displayed through the *output result for inner weight*, which is presented in the form of a structural model.



Source: Processed SEM PLS Data

Table 4.5 Path Coefficient

	Original Sample (O)	Sample Average (M)	Standard Deviation (STDEV)	T Statistics (O/STDEV)	P Values	Information
Work Discipline (X1) -> Employee Performance (Y)	0,639	0,620	0,107	5,965	0,000	Significant
Work Environment (X2) -> Employee Performance (Y)	0,240	0,244	0,111	2,170	0,030	Significant
Work Discipline (X1) -> Work Environment-> Employee Performance (Y)	0,187	0,188	0,093	2,014	0,045	Significant

Source: SEM PLS processed data

4.5 Discussion

The discussion in this study aims to determine the influence of work discipline and work environment on employee performance at PT. Nusantara Plantation I Regional 7. The respondents in this study were 70 respondents. Based on the statistical analysis that has been determined, it shows that work discipline has a significant positive effect on employee performance, work environment has a significant positive effect on employee performance and work discipline, work environment has a significant positive effect on employee performance

H1: The Effect of Work Discipline on Employee Performance

The results of the analysis showed that the Work Discipline variable (X1) had a significant effect on Employee Performance (Y), with a coefficient value of 0.639, a t-statistical value of 5.965, and a p-value of 0.000. This value shows that work discipline has a strong and significant influence on improving employee performance. This means that the higher the level of employee discipline, the better their performance will be. This is in line with the characteristics of the plantation sector which demands punctuality, order, and high work responsibility, especially in operational activities in the field.

H2: The Influence of the Work Environment on Employee Performance

The analysis showed that the Work Environment variable (X2) also had a significant effect on Employee Performance (Y), with a coefficient of 0.240, a t-statistic of 2.170, and a p-value of 0.030. Although the effect is not as large as work discipline, these results show that work environment factors such as relationships between employees, workplace comfort, and safety and psychological aspects also contribute to improved performance. In the context of PT Perkebunan Nusantara I Regional 7, this is very important because the majority of employees' activities take place in plantation areas that require supportive working conditions, both physically and socially.

H3: The Influence of Work Discipline and Work Environment on Employee Performance

Based on the results of statistical testing on the influence of Work Discipline (X1) and Work Environment on Employee Performance (Y), a coefficient value of 0.187 was obtained, with a sample average of 0.188, standard deviation of 0.093, a statistical t-value of 2.014, and a p-value of 0.045. Since the t-value > 1.96 and the p-value < 0.05, it can be concluded that the

effect is statistically significant at a 95% confidence level.

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