

## When Supervision Is Not Enough: Work Discipline and Employee Performance in Indonesian Agribusiness Firm

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### Abstract

This study examines the relationships between supervision, work discipline, and employee performance at PT Indojoya Agrinusa Medan, an agribusiness and animal-feed manufacturing company in Indonesia. A quantitative cross-sectional design was employed. The study involved the entire population of 100 employees, all of whom participated through a census sampling technique. Data were collected using a structured questionnaire with a five-point Likert scale and analyzed using multiple linear regression with IBM SPSS. The measurement instruments demonstrated satisfactory validity and reliability. The results show that supervision was positively and significantly associated with employee performance ( $\beta = 0.253$ ,  $p = 0.011$ ), while work discipline demonstrated a stronger positive association ( $\beta = 0.535$ ,  $p < 0.001$ ). Jointly, supervision and work discipline significantly contributed to employee performance, accounting for 54.3% of its variance ( $R^2 = 0.543$ ). Empirically, these findings indicate that work discipline makes a stronger statistical contribution to employee performance than supervision within the examined agribusiness context, while both remain complementary. Practically, managers should strengthen accurate, timely, objective, and consistently focused supervision while reinforcing employee attendance, compliance with organizational procedures, adherence to work standards, and vigilance to support reliable performance in production-oriented operations.

**Keywords:** supervision, work discipline, employee performance, agribusiness, human resource management

### Introduction

Human resources represent one of the most valuable assets of any organization because they drive operational performance, innovation, and long-term competitiveness. Regardless of technological advancement or the availability of organizational resources, sustainable organizational success ultimately depends on employees' ability to perform their responsibilities effectively and consistently. Consequently, employee performance has become a central concern in human resource management because it directly influences productivity, service quality, operational efficiency, and the achievement of organizational objectives (Afandi, 2018). Recent studies have also emphasized that improving employee performance remains a global research priority due to its strategic role in strengthening organizational sustainability and competitive advantage (Mohammad et al., 2025). This issue becomes particularly important in operationally intensive industries, where individual employee behaviour can directly affect the continuity, efficiency, and quality of organizational processes.

Among the managerial factors associated with employee performance, supervision has consistently received considerable attention. Effective supervision extends beyond merely monitoring employees' activities; it functions as a managerial control mechanism that ensures organizational activities are implemented in accordance with established plans, standards, and operational procedures. Through continuous monitoring, timely feedback, identification of deviations, and corrective actions, supervision enables managers to maintain consistency in work processes and performance quality (Handoko, 2016). When implemented objectively and consistently, supervision not only strengthens organizational control but also provides employees with clearer expectations regarding their responsibilities and performance standards, thereby encouraging greater accountability and improved individual performance (Effendhi & Sutrischastini, 2022). Empirical evidence has repeatedly demonstrated that effective supervisory practices contribute positively to employee productivity and organizational performance across various organizational settings (Nurhayana, 2024; Mandataris, 2023; Ndembo Mwasawa & Wainaina, 2021).

However, effective organizational control does not depend solely on managerial supervision. Work discipline constitutes another fundamental determinant of employee performance because employees are expected to maintain appropriate work behaviour even when direct supervision is not continuously present. Work discipline reflects employees' willingness to comply with organizational rules, operational procedures, and professional standards based on personal responsibility rather than external pressure alone (Sinambela, 2019). Employees with a high level of discipline are generally more punctual, adhere more consistently to established procedures, and demonstrate greater responsibility in completing assigned duties. Conversely, inadequate work discipline often indicates weak adherence to organizational expectations and may result in lower productivity and poorer work quality (Manullang et al., 2022). Previous studies have consistently reported that employees who demonstrate stronger work discipline tend to achieve higher levels of performance across both private organizations and public institutions (Sanjaya et al., 2021; Susanti et al., 2023; Sembiring & Syarifuddin, 2024). These findings suggest that supervision and work discipline represent two complementary mechanisms: supervision operates primarily as an external managerial control mechanism, whereas work discipline reflects employees' internal commitment to maintaining expected workplace behaviour.

The importance of these managerial and behavioural mechanisms is further supported by international research on employee performance. Supportive supervisory behaviour has been shown to strengthen employee engagement, thereby enhancing individual performance (Alam et al., 2021). Similarly, effective line managers contribute to improved performance by fostering stronger employee engagement, whereas positive supervisor-subordinate relationships enhance organizational commitment, job satisfaction, and individual performance (Alfes et al., 2013; Golden & Veiga, 2008). Other studies have demonstrated that effective performance management systems, high levels of employee engagement, and strong organizational commitment consistently contribute to better employee performance across different industries and national contexts (Anitha, 2014; Awan et al., 2020; Cesário & Chambel, 2017; Dhir & Shukla, 2019). Likewise, transformational leadership can indirectly improve employee performance by strengthening employees' organizational identification and engagement (Buil et al., 2019). Collectively, these findings demonstrate that managerial practices and employees' behavioural responses play complementary roles in creating a work

environment that supports sustainable performance. Nevertheless, the extent to which these mechanisms operate may vary across organizational and industrial contexts.

This contextual consideration is particularly relevant in agribusiness operations. Unlike many service-oriented work environments, agribusiness and animal-feed manufacturing involve interconnected production and distribution activities in which disruptions at one stage may affect subsequent operational processes. Production continuity, procedural compliance, operational safety, time-sensitive task completion, and quality control are therefore critical requirements. Employees are expected to perform their duties according to established operating procedures, maintain punctuality, exercise vigilance, and consistently meet production and quality standards. In such an operational environment, supervision is essential for monitoring compliance, detecting deviations, providing corrective feedback, and ensuring that operational activities remain aligned with organizational standards. However, managers cannot continuously monitor every employee action throughout the production process. Work discipline therefore becomes equally important because it reflects employees' willingness to maintain punctuality, procedural compliance, vigilance, and responsibility even in the absence of immediate supervisory control. Thus, the distinctive operational characteristics of agribusiness provide a relevant context for examining whether supervision alone is sufficient or whether employee discipline constitutes a stronger complementary mechanism for sustaining employee performance.

PT Indojaya Agrinusa Medan, a subsidiary of PT Japfa Comfeed Indonesia operating in the agribusiness industry, provides an appropriate organizational setting for examining these relationships. The company's operations depend heavily on employee performance to maintain the continuity of production and distribution processes. Various operational policies have been implemented, including standard operating procedures (SOPs), attendance regulations, and supervisory mechanisms designed to maintain operational efficiency and compliance. Nevertheless, preliminary workplace observations indicated several recurring operational concerns, including delays in task completion, inconsistencies in attendance, and variations in employee compliance with organizational procedures. Supervisory practices were also not always perceived as sufficiently effective in ensuring consistent adherence to established operational standards. These preliminary observations indicate a potential discrepancy between formal organizational policies and their implementation in daily operations, suggesting that managerial supervision may need to be complemented by stronger employee work discipline.

Although the relationships among supervision, work discipline, and employee performance have been widely investigated, the existing literature reveals an important gap. Previous empirical evidence has largely been generated in service organizations, educational institutions, public organizations, hospitality settings, and logistics-related companies (Krisdayanti Hastuti et al., 2025; Afdal & Kasran, 2023). Accordingly, the primary research gap addressed in this study is contextual, supported by an empirical gap, rather than a theoretical gap. The theoretical relationships between supervision, work discipline, and employee performance are relatively well established, but empirical evidence concerning how these relationships operate within Indonesian agribusiness and animal-feed manufacturing remains comparatively limited. This context is distinctive because employee performance is closely associated with continuous production, procedural compliance, operational safety, time sensitivity, and quality-control requirements. These characteristics

may affect not only whether supervision and work discipline influence employee performance but also the relative contribution of each factor.

Addressing this contextual and empirical gap, the present study aims to examine: (1) the effect of supervision on employee performance, (2) the effect of work discipline on employee performance, and (3) the joint contribution of supervision and work discipline to employee performance at PT Indojoya Agrinusa Medan. The novelty of this study lies primarily in extending existing empirical evidence to the Indonesian agribusiness and animal-feed manufacturing context and in examining the relative contribution of an external managerial control mechanism, represented by supervision, and an internal behavioural mechanism, represented by work discipline, in explaining employee performance. By doing so, the study provides context-specific evidence regarding the extent to which managerial supervision needs to be complemented by employee discipline in an operational environment characterized by continuous production processes, procedural requirements, time-sensitive activities, and quality-control demands. The findings are expected to contribute to a broader understanding of employee performance management while providing practical insights for agribusiness organizations seeking to strengthen workforce performance.

Based on the theoretical arguments and empirical evidence discussed above, the following hypotheses are proposed: H1: Supervision has a positive and significant effect on employee performance at PT Indojoya Agrinusa Medan. H2: Work discipline has a positive and significant effect on employee performance at PT Indojoya Agrinusa Medan. H3: Supervision and work discipline jointly have a significant effect on employee performance at PT Indojoya Agrinusa Medan.

## Method

### Research Design and Setting

This study employed a quantitative cross-sectional research design to examine the relationships between supervision, work discipline, and employee performance. The cross-sectional design was selected because data on all study variables were collected from respondents within a single data-collection period rather than repeatedly over time. Accordingly, the statistical analyses were intended to identify the direction, strength, and significance of the relationships among the variables and should not be interpreted as establishing definitive causal relationships.

The study was conducted at PT Indojoya Agrinusa Medan, located in Medan, North Sumatra, Indonesia. Data collection was carried out from [insert exact month/date] to [insert exact month/date], 2026. The target population consisted of all employees of PT Indojoya Agrinusa Medan, totaling 100 individuals. Because the population was relatively small and accessible, a census or saturated sampling technique was adopted, whereby all members of the population were invited to participate in the study.

### Respondents and Questionnaire Administration

A total of 100 questionnaires were distributed to employees who met the study criteria. Of these, 100 questionnaires were returned, representing a response rate of 100%. All returned questionnaires were completed properly and met the data requirements; therefore, no questionnaires were excluded. Consequently, the final analytical sample consisted of 100 valid questionnaires, which were included in the statistical analysis.

Primary quantitative data were collected using a structured self-administered questionnaire. Each item was measured using a five-point Likert scale ranging from 1 (Strongly Disagree) to 5 (Strongly Agree). Interviews and direct workplace observations were conducted only as preliminary and supporting techniques to obtain contextual information regarding workplace conditions and to support the identification of the research problem. These qualitative observations were not treated as a separate dataset and were not subjected to formal qualitative analysis. Consequently, the inferential findings reported in this study were based exclusively on the questionnaire data. Secondary information was obtained from relevant company documents and academic literature to support the description of the organizational context and the development of the research framework.

### Operationalization and Measurement of Variables

The study examined three variables: supervision, work discipline, and employee performance. Supervision was operationalized based on Handoko (2016), work discipline was measured based on Sinambela (2019), and employee performance was assessed using the dimensions proposed by Afandi (2018). Each construct was represented by 10 questionnaire items, resulting in a total of 30 measurement items. The operational definitions and measurement dimensions are summarized in Table 1.

Table 1. Operational Definitions and Measurement of Research Variables

| Variable             | Operational Definition                                                                                                                                                                                | Indicators/Dimensions                                                                                   | Number of Items | Measurement Scale                                                     | Source           |
|----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------|-----------------|-----------------------------------------------------------------------|------------------|
| Supervision (X1)     | Managerial activities undertaken to monitor work implementation, identify deviations, and ensure that employee activities are performed according to organizational plans, standards, and procedures. | Accuracy of information; timeliness of supervision; objectivity; focus on critical control points       | 10              | Five-point Likert scale (1 = Strongly Disagree to 5 = Strongly Agree) | Handoko (2016)   |
| Work Discipline (X2) | Employees' willingness and consistency in complying with organizational rules, procedures, and work standards as part of their workplace                                                              | Attendance; compliance with organizational regulations; adherence to work standards; employee vigilance | 10              | Five-point Likert scale (1 = Strongly Disagree to 5 = Strongly Agree) | Sinambela (2019) |

| Variable                 | Operational Definition                                                                                                       | Indicators/Dimensions                                     | Number of Items | Measurement Scale                                                     | Source        |
|--------------------------|------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------|-----------------|-----------------------------------------------------------------------|---------------|
| responsibilities.        |                                                                                                                              |                                                           |                 |                                                                       |               |
| Employee Performance (Y) | The extent to which employees achieve expected work outcomes in terms of quantity, quality, efficiency, and completion time. | Quantity of work; quality of work; efficiency; timeliness | 10              | Five-point Likert scale (1 = Strongly Disagree to 5 = Strongly Agree) | Afandi (2018) |

Prior to the main statistical analysis, the measurement instrument was evaluated for validity and reliability. Item validity was assessed using the Pearson product-moment correlation coefficient. An item was considered valid when its calculated correlation coefficient exceeded the critical value of 0.196 ( $n = 100$ ,  $df = 98$ ,  $\alpha = 0.05$ ). Internal consistency was assessed using Cronbach's alpha, with a coefficient greater than 0.60 considered acceptable for reliability.

### Data Analysis

Data were analyzed using IBM SPSS. Prior to multiple linear regression analysis, the assumptions underlying the regression model were evaluated. Residual normality was assessed using the Kolmogorov-Smirnov test. Multicollinearity was examined using Tolerance and Variance Inflation Factor (VIF) values, while heteroscedasticity was evaluated using the Glejser test.

After the required regression assumptions had been evaluated, multiple linear regression was used to estimate the statistical relationships between supervision, work discipline, and employee performance. The regression model was specified as follows:

$$Y = a + \beta_1 X_1 + \beta_2 X_2 + \varepsilon$$

where Y represents employee performance, a is the regression constant,  $\beta_1$  and  $\beta_2$  represent the regression coefficients,  $X_1$  represents supervision,  $X_2$  represents work discipline, and  $\varepsilon$  represents the error term.

Partial t-tests were used to assess whether supervision and work discipline were individually associated with employee performance after controlling for the other predictor in the model. The F-test was used to evaluate whether supervision and work discipline jointly contributed significantly to the regression model. In addition, the coefficient of determination ( $R^2$ ) was calculated to estimate the proportion of variation in employee performance statistically explained by the two predictor variables. All statistical tests were evaluated at a 5% significance level ( $\alpha = 0.05$ ).

Given the cross-sectional observational design, regression coefficients and statistical significance were interpreted as evidence of statistical relationships and predictive contributions, rather than as proof of definitive causal effects.

## Results and Discussion

### Respondent Characteristics

The study involved 100 employees of PT Indojoya Agrinusa Medan. Male respondents constituted the majority of the sample (85.0%), whereas female respondents accounted for 15.0%. The workforce was predominantly young: 49.0% of respondents were younger than 20 years, 47.0% were between 20 and 30 years, and only 4.0% were between 30 and 40 years of age.

Regarding educational attainment, most respondents had completed senior high school (62.0%), followed by vocational high school (17.0%), bachelor's degree (15.0%), and diploma qualifications (6.0%). Respondents were predominantly employed in the Production Division (58.0%), followed by the General Division (20.0%), Finance Division (12.0%), and Marketing Division (10.0%). In addition, 60.0% of respondents had worked for the company for less than five years, indicating that the workforce was dominated by relatively young employees with comparatively short organizational tenure.

The demographic composition of the respondents may be relevant to the relationships examined in this study. Younger and shorter-tenure employees may still be developing familiarity with organizational routines, performance expectations, and established work procedures. Consequently, clear supervisory guidance and consistent work discipline may be particularly relevant for this workforce. Supervisors may play an important role in communicating standards, providing timely feedback, and correcting deviations, while work discipline may help employees develop consistent attendance, procedural compliance, and responsibility in performing daily tasks. Nevertheless, age and organizational tenure were not examined as moderating variables in the present study; therefore, these demographic implications should be interpreted cautiously and warrant further investigation.

### Instrument Validity and Reliability

The validity assessment confirmed that all questionnaire items satisfied the required validity criterion, with item-total correlation coefficients exceeding the critical value of 0.196. The reliability analysis also demonstrated strong internal consistency across all three constructs. Cronbach's alpha coefficients were 0.941 for supervision, 0.914 for work discipline, and 0.928 for employee performance. These results indicate that the measurement instruments were valid and reliable for subsequent statistical analysis.

Table 2. Summary of Validity and Reliability Test Results

| Variabel                 | Items | Range of r value | Critical r Value | Cronbach's Alpha | Description        |
|--------------------------|-------|------------------|------------------|------------------|--------------------|
| Supervision (X1)         | 10    | 0,699 - 0,913    | 0,196            | 0,941            | Valid and Reliable |
| Work discipline (X2)     | 10    | 0,670 - 0,888    | 0,196            | 0,914            | Valid and Reliable |
| Employee Performance (Y) | 10    | 0,623 - 0,895    | 0,196            | 0,928            | Valid and Reliable |

Source: Analysis of primary data (2026).

### Classical Assumption Tests

Before estimating the multiple regression model, the underlying statistical assumptions were evaluated. The Kolmogorov–Smirnov test produced a significance value of 0.200, indicating no evidence of a substantial departure from residual normality at the 5% significance level. Multicollinearity diagnostics showed tolerance values above 0.10 and Variance Inflation Factor (VIF) values below 10, indicating that problematic multicollinearity was not detected between supervision and work discipline. Furthermore, the Glejser test showed significance values above 0.05 for both predictors, providing no evidence of heteroscedasticity. Collectively, these results indicated that the regression model met the required assumptions for subsequent statistical analysis.

### Multiple Linear Regression Analysis

Multiple linear regression analysis was conducted to examine the statistical relationships between supervision, work discipline, and employee performance. The regression coefficients and partial t-test results are presented in Table 3.

Table 3. Multiple Linear Regression Analysis

| Variable             | B     | Std. Error | Beta  | t value | Sig.  |
|----------------------|-------|------------|-------|---------|-------|
| (Constant)           | 6,446 | 3,731      | -     | 1,728   | 0,087 |
| Supervision (X1)     | 0,293 | 0,113      | 0,253 | 2,594   | 0,011 |
| Work discipline (X2) | 0,623 | 0,114      | 0,535 | 5,481   | 0,000 |

Source: Analysis of primary data (2026)

Based on the unstandardized regression coefficients, the estimated regression equation is:

$$Y = 6.446 + 0.293X_1 + 0.623X_2$$

where  $Y$  represents employee performance,  $X_1$  represents supervision,  $X_2$  represents work discipline, and  $\epsilon$  represents the error term.

Supervision was positively and significantly associated with employee performance ( $B = 0.293$ ,  $\beta = 0.253$ ,  $t = 2.594$ ,  $p = 0.011$ ). Holding work discipline constant, higher supervision scores were associated with higher employee performance scores. Work discipline also demonstrated a positive and statistically significant relationship with employee performance ( $B = 0.623$ ,  $\beta = 0.535$ ,  $t = 5.481$ ,  $p < 0.001$ ). Accordingly, Hypotheses 1 and 2 were supported.

The standardized coefficients indicate that work discipline ( $\beta = 0.535$ ) made a stronger statistical contribution to employee performance than supervision ( $\beta = 0.253$ ) within the estimated model. This difference does not imply that supervision is unimportant; rather, it indicates that, after both predictors were considered simultaneously, variation in work discipline was more strongly associated with employee performance than variation in supervision.

### Joint Contribution of Supervision and Work Discipline

The overall regression model was statistically significant. The F-test and coefficient of determination are presented in Table 4.

Table 4. ANOVA and Coefficient of Determination

| Sources of Variation                                                                                     | Sum of Squares | df | Mean Square | F value | Sig.  |
|----------------------------------------------------------------------------------------------------------|----------------|----|-------------|---------|-------|
| Regresi                                                                                                  | 850,877        | 2  | 425,439     | 57,724  | 0,000 |
| Residual                                                                                                 | 714,913        | 97 | 7,370       | -       | -     |
| Total                                                                                                    | 1565,790       | 99 | -           | -       | -     |
| R = 0,737      R Square = 0,543      Adjusted R Square = 0,534      Std. Error of the Estimate = 2,71482 |                |    |             |         |       |
| F-table = 3.09 (df1 = 2; df2 = 97; $\alpha$ = 0.05).                                                     |                |    |             |         |       |

Source: Results of primary data analysis (2026).

The regression model was statistically significant,  $F(2, 97) = 57.724$ ,  $p < 0.001$ , indicating that supervision and work discipline jointly contributed significantly to the prediction of employee performance. The calculated F-value was substantially higher than the critical value of 3.09, supporting Hypothesis 3.

The coefficient of determination ( $R^2 = 0.543$ ) indicates that supervision and work discipline jointly accounted for 54.3% of the observed variance in employee performance. The adjusted coefficient of determination (Adjusted  $R^2 = 0.534$ ) indicates that approximately 53.4% of the variance remained explained after adjustment for the number of predictors in the model. The remaining 45.7% of the variance may be associated with other organizational and individual factors not included in the present model, such as compensation, work motivation, organizational culture, job satisfaction, leadership, or other employee characteristics. Given the cross-sectional design, these findings represent statistical explanatory and predictive contributions rather than definitive evidence of causality.

### Relationship between Supervision and Employee Performance

The positive and statistically significant relationship between supervision and employee performance ( $\beta = 0.253$ ,  $p = 0.011$ ) indicates that supervisory practices remain relevant to employee performance at PT Indojoya Agrinusa Medan. This relationship is particularly meaningful in an agribusiness and animal-feed manufacturing environment because production and distribution activities depend on coordinated work processes, adherence to operational procedures, timely completion of tasks, and consistent quality standards.

The supervision construct used in this study includes four important dimensions: accuracy of information, timeliness of supervision, objectivity, and attention to critical control points (Handoko, 2016). Each dimension can be linked to employee performance within the operational setting of PT Indojoya Agrinusa Medan. First, accuracy of information enables supervisors and employees to base work decisions on reliable information regarding task requirements, operational conditions, and performance expectations. Accurate information reduces misunderstanding and helps employees perform assigned activities according to organizational requirements.

Second, timeliness of supervision is particularly important in production-oriented operations because delayed supervisory responses may allow operational deviations to

continue and potentially affect subsequent stages of work. Timely monitoring and feedback allow deviations to be identified and corrected before they become more disruptive to production continuity or work quality. Third, objectivity contributes to employee performance by ensuring that evaluations, corrections, and supervisory decisions are based on work standards rather than personal considerations. Objective supervision can provide employees with clearer expectations and strengthen perceptions of consistency and accountability.

Fourth, attention to critical control points is especially relevant in agribusiness operations, where not every activity carries the same level of operational importance. Supervisory attention directed toward activities that are particularly important for procedural compliance, safety, production continuity, and quality control can help prevent deviations at critical stages of the operational process. Therefore, the positive association identified in this study can be understood not merely as a general benefit of managerial monitoring but as the contribution of timely, accurate, objective, and strategically focused supervisory practices to employees' ability to perform consistently.

The present finding is consistent with previous studies demonstrating a positive relationship between supervision and employee performance (Nurhayana, 2024; Jelatu & Ibrahim, 2024). However, the organizational context of the present study differs from many earlier settings. Previous studies have examined supervision in organizational contexts with different work structures and performance requirements, whereas PT Indojoya Agrinusa Medan operates within an agribusiness environment characterized by interconnected production processes and a relatively large proportion of employees assigned to the Production Division. In the present sample, 58.0% of respondents worked in production, while 60.0% had less than five years of organizational tenure. These characteristics may increase the practical relevance of clear supervisory communication and timely correction because relatively new employees may still be consolidating their understanding of organizational procedures and performance expectations.

At the same time, the standardized coefficient for supervision ( $\beta = 0.253$ ) was substantially lower than that for work discipline ( $\beta = 0.535$ ). This finding suggests that managerial monitoring alone may have a more limited contribution when employees' daily activities also require consistent self-regulation and procedural adherence. Direct numerical comparisons with previous studies should be made cautiously because studies may differ in measurement instruments, regression specifications, employee profiles, industries, and organizational structures. Nevertheless, the present result extends earlier evidence by showing that supervision remains statistically relevant in agribusiness operations but operates alongside an even stronger behavioural contribution from work discipline.

### **Relationship between Work Discipline and Employee Performance**

Work discipline emerged as the strongest predictor in the regression model, with a standardized coefficient of  $\beta = 0.535$  ( $p < 0.001$ ). This finding indicates that employees who reported stronger work discipline also tended to report higher levels of performance after supervision was statistically controlled. The magnitude of this relationship is particularly meaningful in the context of animal-feed manufacturing because daily operational performance depends on employees consistently performing expected behaviours rather than relying exclusively on immediate supervisory control.

The work-discipline construct comprises attendance, compliance with organizational regulations, adherence to work standards, and employee vigilance (Sinambela, 2019). These dimensions are directly relevant to production activities. Attendance contributes to production continuity because employees must be available as scheduled for interconnected work processes to proceed without unnecessary disruption. Irregular attendance or lateness can affect task allocation and may place additional demands on other employees, particularly in production-oriented divisions.

Compliance with organizational regulations contributes to predictable and orderly work behaviour. In an operational environment governed by established procedures, employees' willingness to follow organizational rules supports coordination and reduces unnecessary deviations from expected practices. Adherence to work standards is particularly important for maintaining consistency in task execution and supporting required levels of productivity and quality. When employees perform tasks according to established standards, differences in work execution can be reduced and operational processes can remain more stable.

Employee vigilance is also important because production activities require sustained attention to work conditions and potential deviations. Vigilant employees are more likely to recognize irregularities, maintain attention to procedural requirements, and respond appropriately to conditions that could interfere with work quality, safety, or operational continuity. Taken together, these four dimensions demonstrate why discipline should not be viewed merely as attendance compliance; rather, it represents a broader pattern of dependable behaviour that supports the stability of production activities.

The present findings are consistent with previous studies reporting a positive association between work discipline and employee performance (Sanjaya et al., 2021; Susanti et al., 2023). However, the relatively strong standardized contribution observed in this study may be partly understood through the operational characteristics of PT Indojoya Agrinusa Medan. Unlike work settings in which employees may have greater flexibility in when and how tasks are completed, agribusiness manufacturing depends on continuity, procedural consistency, time-sensitive activities, and coordinated production processes. Under these conditions, attendance, procedural compliance, adherence to work standards, and vigilance are closely connected with the ability of the organization to maintain daily operations.

Employee characteristics may also provide contextual insight into this finding. The sample was dominated by young employees, and 60.0% had worked for the organization for less than five years. For employees who are relatively new to an organization, consistently following established rules and work standards may provide an important behavioural structure for maintaining performance. Nevertheless, this interpretation remains tentative because age and tenure were not formally tested as moderators in the statistical model.

The stronger coefficient for work discipline compared with supervision also provides an important interpretation for the study's central argument. Supervision represents an external managerial mechanism, whereas work discipline reflects employees' capacity to maintain expected behaviour even when direct monitoring is not continuously present. Within a production environment, supervisors cannot observe every action at every stage of daily operations. Consequently, organizational performance may depend considerably on whether employees internalize attendance requirements, procedural standards, and vigilance as part of their routine behaviour. This may explain why work discipline demonstrated a stronger statistical association with performance than supervision in the present model.

### Joint Contribution of Supervision and Work Discipline

The findings further indicate that supervision and work discipline jointly made a significant contribution to employee performance,  $F(2, 97) = 57.724$ ,  $p < 0.001$ , with the two variables accounting for 54.3% of the variance in performance. This result highlights the complementary nature of managerial control and employee behavioural consistency.

Supervision provides an external organizational mechanism through which expectations are communicated, work processes are monitored, deviations are identified, and corrective feedback is provided. Work discipline, by contrast, reflects employees' willingness to translate those organizational expectations into consistent daily behaviour. In the context of PT Indojoya Agrinusa Medan, these mechanisms are particularly relevant because production continuity cannot depend entirely on continuous managerial observation. Supervisory systems may establish and reinforce expected standards, but employees must independently maintain attendance, compliance, adherence to work procedures, and vigilance throughout their daily activities.

This complementary relationship is consistent with previous research emphasizing the importance of managerial control and employee discipline in supporting employee performance (Krisdayanti Hastuti et al., 2025; Sembiring & Syarifuddin, 2024; Andri & Mandataris, 2023). However, the present study contributes additional contextual evidence from agribusiness and animal-feed manufacturing. In comparison with service-oriented, public-sector, or logistics-related settings examined in earlier research, production-oriented agribusiness activities involve stronger interdependence among work processes, where delays or procedural deviations may have consequences for subsequent operational activities. This operational structure helps explain why both supervision and discipline are relevant simultaneously.

The results should therefore not be interpreted as suggesting that work discipline replaces supervision. Instead, the findings indicate that supervision and discipline perform different but complementary functions. Accurate, timely, objective, and strategically focused supervision provides external direction and correction, whereas disciplined attendance, regulatory compliance, adherence to work standards, and vigilance enable employees to maintain expected behaviour between supervisory interventions. This interaction provides a context-specific explanation for why the two predictors together accounted for more than half of the observed variance in employee performance.

Nevertheless, 45.7% of the variance in employee performance remained unexplained by the model. This finding reinforces the multidimensional nature of employee performance and suggests that future studies should consider additional organizational and psychological factors such as compensation, work motivation, organizational culture, leadership, employee engagement, and job satisfaction. Future research may also examine whether age, organizational tenure, division, or other employee characteristics moderate the relationships between supervision, work discipline, and performance.

### Conclusion

This study found that supervision and work discipline were both positively and significantly associated with employee performance at PT Indojoya Agrinusa Medan. Supervision showed a significant relationship with employee performance ( $\beta = 0.253$ ,  $p = 0.011$ ), while work discipline demonstrated a stronger statistical contribution ( $\beta = 0.535$ ,  $p < 0.001$ ). Together, the two predictors accounted for 54.3% of the variance in employee

performance ( $R^2 = 0.543$ ). These findings indicate that supervision remains important, but employee performance in this agribusiness setting is more strongly associated with employees' consistent adherence to expected work behaviours. Thus, supervision and work discipline should be understood as complementary mechanisms rather than substitutes: supervision provides external managerial direction and control, whereas work discipline supports consistent employee behaviour between supervisory interventions.

The findings have direct practical implications for PT Indojoya Agrinusa Medan. Supervisory practices should emphasize the dimensions examined in this study, particularly the accuracy of information, timeliness of supervision and feedback, objectivity in evaluating employee performance, and attention to critical control points in operational activities. Accurate and timely supervisory information can help employees understand work requirements and enable deviations to be corrected before they disrupt subsequent production processes. Objective supervision can also reinforce consistent performance expectations, while attention to critical operational points can support procedural compliance, production continuity, and quality control. At the employee level, managerial attention should focus on strengthening the work-discipline dimensions investigated in this study, particularly attendance, compliance with organizational regulations, adherence to work standards, and employee vigilance. These behaviours are especially relevant in production-oriented agribusiness operations, where lateness, procedural deviations, or insufficient attention to work standards may affect interconnected operational activities. Accordingly, managerial actions should primarily reinforce the supervisory and disciplinary practices directly supported by the present findings. Broader interventions, such as compensation policies, reward systems, leadership development, or employee-development programs, may also be relevant but should be considered cautiously because these factors were not measured in the present study.

The study also extends existing empirical evidence by examining supervision, work discipline, and employee performance within an Indonesian agribusiness and animal-feed manufacturing context. However, several limitations should be acknowledged. First, the study was conducted in a single organization with 100 employees, limiting the generalizability of the findings to other agribusiness companies, organizational sizes, or industries. Second, the cross-sectional design captured the relationships among the variables at only one point in time; therefore, the findings should not be interpreted as establishing definitive causal relationships. Third, supervision, work discipline, and employee performance were measured using questionnaire responses from the same respondents, which may introduce common-method and self-report bias. Employee performance in particular may be assessed more comprehensively when employee perceptions are combined with information from supervisors or objective organizational records.

Future research should therefore examine these relationships across broader organizational samples, including multiple agribusiness companies and different operational settings, to improve the external validity of the findings. Longitudinal designs are also recommended to determine whether changes in supervision and work discipline are followed by changes in employee performance over time. In addition, future studies should employ multi-source performance measures, such as supervisor ratings, attendance records, productivity indicators, quality-control records, or other objective performance data, alongside employee questionnaires. Further research may also cautiously examine additional

organizational and individual factors that were not included in the present model to provide a more comprehensive explanation of employee performance.

## References

- Afandi, P. (2018). *Manajemen sumber daya manusia: Teori, konsep dan indikator*. Zanafra Publishing.
- Afdal, M., & Kasran, M. (2023). Pengaruh gaya kepemimpinan dan pengawasan terhadap kinerja karyawan. *Jesya (Jurnal Ekonomi dan Ekonomi Syariah)*, 6(1), 436–446. <https://doi.org/10.36778/jesya.v6i1.954>
- Alam, I., Kartar Singh, J. S., & Islam, M. U. (2021). Does supportive supervisor complement the effect of ethical leadership on employee engagement? *Cogent Business & Management*, 8(1), 1978371. <https://doi.org/10.1080/23311975.2021.1978371>
- Alfes, K., Truss, C., Soane, E. C., Rees, C., & Gatenby, M. (2013). The relationship between line manager behavior, perceived HRM practices, and individual performance: Examining the mediating role of engagement. *Human Resource Management*, 52(6), 839–859. <https://doi.org/10.1002/hrm.21512>
- Andri, S., & Mandataris. (2023). The effect of job training, job supervision and employee commitment to job performance. *Jurnal Pamator*, 16(2), 377–385. <https://doi.org/10.21107/pamator.v16i2.20017>
- Anitha, J. (2014). Determinants of employee engagement and their impact on employee performance. *International Journal of Productivity and Performance Management*, 63(3), 308–323. <https://doi.org/10.1108/IJPPM-01-2013-0008>
- Awan, S. H., Habib, N., Shoaib Akhtar, C., & Naveed, S. (2020). Effectiveness of performance management system for employee performance through engagement. *SAGE Open*, 10(4), 2158244020969383. <https://doi.org/10.1177/2158244020969383>
- Buil, I., Martínez, E., & Matute, J. (2019). Transformational leadership and employee performance: The role of identification, engagement and proactive personality. *International Journal of Hospitality Management*, 77(1), 64–75. <https://doi.org/10.1016/j.ijhm.2018.06.014>
- Cesário, F., & Chambel, M. J. (2017). Linking organizational commitment and work engagement to employee performance. *Knowledge and Process Management*, 24(2), 152–158. <https://doi.org/10.1002/kpm.1542>
- Dhir, S., & Shukla, A. (2019). Role of organizational image in employee engagement and performance. *Benchmarking: An International Journal*, 26(3), 971–989. <https://doi.org/10.1108/BIJ-04-2018-0094>
- Effendhi, L., & Sutrischastini, A. (2022). Upaya meningkatkan disiplin kerja karyawan PT. Smart Talenta Multitama melalui fungsi pengawasan. *Jurnal Riset Akuntansi dan Bisnis Indonesia*, 2(4), 1103–1118. <https://doi.org/10.32477/jrabi.v2i4.613>
- Golden, T. D., & Veiga, J. F. (2008). The impact of superior–subordinate relationships on the commitment, job satisfaction, and performance of virtual workers. *The Leadership Quarterly*, 19(1), 77–88. <https://doi.org/10.1016/j.leaqua.2007.12.009>
- Handoko, T. H. (2016). *Manajemen (Edisi 2)*. BPFE-Yogyakarta.
- Jelatu, H., & Ibrahim, I. A. (2024). Bagaimana pengaruh pengawasan dan disiplin kerja terhadap kinerja karyawan Hotel Grand Papua Sentani. *Economics and Digital Business Review*, 5(2), 774–779.

- Krisdayanti Hastuti, Nursiani, N. P., & Riwu, Y. F. (2025). Pengaruh pengawasan dan disiplin kerja terhadap kinerja karyawan pada terminal cargo PT Angkasa Pura Logistik (APLog) Cabang Kupang. *Jurnal Glory: Jurnal Ekonomi dan Ilmu Sosial*, 6(1), 465–476.
- Manullang, W. T. A., Sinaga, R. V., & Silalahi, E. (2022). Pengaruh disiplin kerja, fasilitas kerja dan beban kerja terhadap kinerja karyawan pada PT. Hilon Sumatera. *KUKIMA: Kumpulan Karya Ilmiah Manajemen*, 1(1), 10–21. <https://doi.org/10.54367/kukima.v1i1.1806>
- Mohammad, A. M., Menhat, M., Shafi, S., Hussein, A.-H. M. A., Al-Mubaideen, M. A., & Alshaketheep, K. (2025). Trends in employee performance: A comprehensive review and bibliometric analysis using Scopus and WOS. *SA Journal of Human Resource Management*, 23(0), a2887. <https://doi.org/10.4102/sajhrm.v23i0.2887>
- Ndembo Mwasawa, D., & Wainaina, L. (2021). Performance supervision and employees' productivity in the Ministry of Lands, Environment and Natural Resources of Taita Taveta County, Kenya. *European Scientific Journal*, ESJ, 17(19), 128. <https://doi.org/10.19044/esj.2021.v17n19p128>
- Nurhayana. (2024). Pengaruh pengawasan dan disiplin kerja terhadap kinerja karyawan PT Primanusa Globalindo Pekanbaru. *Jurnal Economica: Media Komunikasi ISEI Riau*, 13(3), 337–341.
- Sanjaya, E. L., Roselin, V., & Nazmi, H. (2021). Pengaruh pengawasan, kedisiplinan kerja dan kepuasan kerja terhadap kinerja karyawan pada PT. Dutaraya Sejati. *Warta Dharmawangsa*, 15(3), 358–370. <https://doi.org/10.46576/wdw.v15i3.1357>
- Sembiring, N. M., & Syarifuddin, S. (2024). The influence of supervisor, teamwork, and discipline on employee performance. *Almana: Jurnal Manajemen dan Bisnis*, 8(1), 20–28. <https://doi.org/10.36555/almana.v8i1.2298>
- Sinambela, L. P. (2019). *Manajemen sumber daya manusia*. Bumi Aksara.
- Susanti, E., Firdaus, A., & Sartika, S. (2023). Pengaruh pengawasan dan disiplin kerja terhadap kinerja Pegawai Negeri Sipil (PNS) pada Dinas Pendidikan Kabupaten Paser. *Jurnal Warta Dharmawangsa*, 17(1), 412–420. <https://doi.org/10.46576/wdw.v17i1.2955>
- Yani, N. N., & Andani, K. W. (2024). Pengaruh motivasi, disiplin dan kepuasan kerja terhadap kinerja karyawan. *Jurnal Manajerial dan Kewirausahaan*, 6(1), 154–160. <https://doi.org/10.24912/jmk.v6i1.28587>