

The Effect of Adaptive Supervision on Employee Performance: Evidence from the Secretariat Office of Binjai City

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Abstract

This study examines the effect of adaptive supervision on employee performance at the Secretariat Office of Binjai City. Using a quantitative approach with 52 respondents, data were collected via structured questionnaires and analyzed through descriptive statistics, reliability and validity tests, and simple linear regression. The descriptive results indicate that both adaptive supervision (Mean = 4.65, SD = 0.49) and employee performance (Mean = 4.59, SD = 0.42) are perceived positively by employees. Regression analysis shows that adaptive supervision has a significant positive effect on employee performance ($B = 1.166$, $\text{Beta} = 0.743$, $t = 9.322$, $p < 0.05$), with a coefficient of determination (R^2) of 0.553, meaning it explains 55.3% of the variance in performance. These findings suggest that flexible and responsive supervisory practices enhance employee performance, highlighting the critical role of adaptive leadership in public sector organizations.

Keywords: Adaptive Supervision, Employee Performance

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Introduction

Adaptive supervision is a managerial approach that adjusts oversight strategies based on employees' competencies, task complexity, and situational demands. In modern public sector organizations, adaptive supervision has become increasingly relevant due to dynamic work environments and diverse employee capabilities [1]. Effective supervision ensures that employees receive appropriate guidance, support, and feedback, which can improve performance, enhance engagement, and reduce errors. Within the Secretariat Office of Binjai City, employee performance is critical for delivering timely administrative services, coordinating government programs, and maintaining organizational efficiency [2].

Previous studies have demonstrated that adaptive supervision positively influences employee outcomes. For example, research in both private and public organizations indicates that supervisors who adjust their monitoring style to employee needs can increase motivation, job satisfaction, and task performance [3]. Similarly, transformational and supportive supervision styles have been linked to higher organizational commitment and efficiency [4]. Despite the growing interest in adaptive supervision, limited research has examined its impact specifically on public sector employee performance in Indonesian city administrations. Most studies have focused either on general leadership styles or on performance metrics without integrating adaptive supervision as a distinct variable [5].

The scientific novelty of this study lies in its focus on the direct impact of adaptive supervision on employee performance in a local government context. Unlike previous research that primarily explored supervision in private enterprises or in broad organizational settings, this study addresses the unique challenges of managing public employees in the Secretariat Office of Binjai City. By investigating adaptive supervision in this context, the study contributes to the literature on public sector management and provides practical insights for improving administrative efficiency.

The research problem can be formulated as follows: Does adaptive supervision significantly influence employee performance at the Secretariat Office of Binjai City? Understanding this relationship is particularly important given the increasing demands on public employees to deliver high-quality services efficiently, often under limited resources and complex bureaucratic procedures.

The purpose of this study is to analyze the effect of adaptive supervision on employee performance at the Secretariat Office of Binjai City. The study aims to provide empirical evidence on the extent to which adaptive supervisory practices contribute to enhancing employee performance, thereby offering actionable recommendations for public sector managers and policymakers to optimize supervision strategies and organizational outcomes.

Literature Review

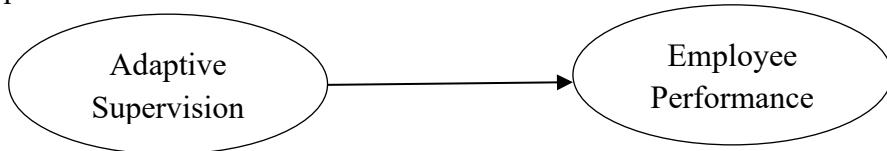
Adaptive Supervision is defined as a flexible managerial approach where supervisors adjust their level of oversight according to employees' competence, motivation, and task complexity [6]. This approach is rooted in contingency theory, which suggests that no single supervisory style is universally effective; rather, effectiveness depends on contextual factors, including employee skill levels and organizational demands. Adaptive supervision encompasses behaviors such as providing guidance when needed, allowing autonomy for skilled employees, offering feedback, and adjusting Adaptive Supervision expectations to optimize performance outcomes.

Empirical studies have highlighted the benefits of adaptive supervision in enhancing employee performance. For instance, research in public institutions demonstrates that employees supervised adaptively report higher engagement, reduced stress, and increased task efficiency [10]. Similarly, in private sector settings, adaptive supervisory practices were shown to improve innovation, teamwork, and individual accountability [7]. These findings suggest that tailoring supervision to employees' needs can directly impact the quality and quantity of work output.

Employee Performance is generally conceptualized as the extent to which employees accomplish tasks, meet organizational goals, and maintain work quality [8]. It is influenced by multiple factors, including motivation, skills, leadership, and workplace environment. In the public sector, high employee performance is essential for delivering effective administrative services, ensuring regulatory compliance, and promoting citizen satisfaction [9]. Prior research has shown that supervision style is one of the key determinants of performance outcomes, with adaptive supervision consistently linked to higher levels of efficiency and goal attainment [10].

Several studies also emphasize that adaptive supervision can enhance employee motivation and organizational commitment, which indirectly improves performance. Employees who feel supported and appropriately challenged by their supervisors tend to exhibit stronger loyalty, higher morale, and greater willingness to take initiative [11]. These outcomes are particularly relevant in government offices, where performance is closely tied to service delivery and public accountability [12].

Despite these findings, there remains a gap in the literature regarding the specific effects of adaptive supervision on employee performance in Indonesian local government institutions, particularly within the Secretariat Office of Binjai City. Most existing studies either focus on general leadership styles, organizational culture, or employee satisfaction without explicitly linking adaptive supervisory practices to measurable performance outcomes. Therefore, this study addresses this gap by empirically analyzing how adaptive supervision influences employee performance, contributing both theoretically and practically to public sector management knowledge. This study conceptualized Adaptive Supervision as the independent variable (X) and Employee Performance as the dependent variable (Y) as shown on the following figure.



The hypothesis is:

Ha : Adaptive Supervision positively influences Employee Performance at the Secretariat Office of Binjai City.

Ho : Adaptive Supervision does not positively influence Employee Performance at the Secretariat Office of Binjai City.

Research Methodology

This study employs a quantitative associative-causal research design, which aims to analyze the pattern of relationships between variables in order to determine the influence of two independent (exogenous) variables on a dependent (endogenous) variable. The research was conducted at the Secretariat Office of Binjai City. The data collection process was carried out from March to August 2025.

According to Sugiyono, a population is defined as the generalization area consisting of objects or subjects that possess specific qualities and characteristics established by the researcher to be studied and from which conclusions are drawn. In this study, the population comprises the entire workforce of the Agency, totaling 52 employees, with the following distribution:

Table 1. Population Size

N o.	Status	Number of Employees
1	Civil Servants (ASN)	52
	Total	52

Source : Secretariat Office of Binjai City

The sampling technique employed in this study was purposive sampling. According to Sugiyono, purposive sampling is a technique for determining samples based on specific considerations. The rationale for using purposive sampling is that it is appropriate for quantitative research, particularly studies that do not aim for broad generalization. Based on this methodological approach, the selection of participants was deliberately focused on individuals who are categorized as civil servants (ASN) [13]. In total, the research involved 52 employees who met the specified criteria and were included as the sample for this study [14].

The data utilized in this research were obtained from questionnaires distributed to respondents across all divisions of the Agency. The analytical method applied was quantitative data analysis using SPSS version 25.0.

The data collected using structured questionnaires distributed to all employees across divisions within the office. The data will be analyzed using quantitative statistical methods with SPSS version 25.0. Several steps will be performed.

Validity testing ensures that questionnaire items accurately measure the intended variables. An item is valid if the correlation coefficient (*r-count*) exceeds the critical value (*r-table*). Reliability testing will use Cronbach's alpha, where a value greater than the critical value indicates reliability.

The regression model applied in this study was formulated as follows:

$$Y=a+bX$$

Where:

Y = Employee Performance

X = Adaptive Supervision

a = Constant

b = Regression Coefficient

The t-test was conducted to determine the significance of the influence of the independent variable on the dependent variable. Furthermore, the coefficient of determination (R^2) was used to measure the extent of the effect of the independent variable on the dependent variable. In other words, the coefficient of determination was applied to evaluate how strongly the independent variable, namely Adaptive Supervision (X), influences the dependent variable, Employee Performance (Y). The value of R^2 ranges between 0 and 1 ($0 < R^2 < 1$), indicating that when $R^2 = 0$, there is no influence between X and Y, while the closer R^2 approaches 1, the stronger the relationship between X and Y. The determination test was conducted using SPSS version 25.0.

Results

4.1 Research Findings

4.1.1 Descriptive Analysis

Descriptive analysis in this test was employed to identify the minimum and maximum scores, mean scores, and standard deviations of each variable. The results are as follows:

The table title is at the top, while the image title is written below. If tables and figures can be included in a single column, then the writing example is as follows:

Table 1. Descriptive Statistics

Variable	N	Minimum	Maximum	Mean	Std. Deviation
Adaptive Supervision	52	3.55	5.00	4.65	0.49
Employee Performance	52	3.74	5.00	4.59	0.42

Source: SPSS output, version 25.0

The descriptive statistical analysis was conducted to examine the minimum, maximum, mean, and standard deviation values for the research variables, namely Adaptive Supervision and Employee Performance.

The results show that the Adaptive Supervision variable (N = 52) has a minimum score of 3.55 and a maximum score of 5.00, with a mean of 4.65 and a standard deviation of 0.49. These findings indicate that employees perceive adaptive supervision at a high level, with moderate variability. This suggests that while most employees experience effective and flexible supervision, individual perceptions of supervisory practices may slightly differ across respondents. Meanwhile, the Employee Performance variable (N = 52) shows a minimum score of 3.74 and a maximum score of 5.00, with a mean of 4.59 and a standard deviation of 0.42. This reflects that employee performance is rated high, with relatively low variability, indicating general consistency in how employees perform their tasks and achieve organizational goals. The descriptive statistics suggest that both adaptive supervision and employee performance are perceived positively among respondents. These results provide an initial indication that adaptive supervision may play a key role in fostering high levels of employee performance, reinforcing the importance of flexible and responsive managerial practices in public sector organizations such as the Secretariat Office of Binjai City.

4.1.2 Validity and Reliability Tests

The validity test was conducted using the Corrected Item-Total Correlation. Results showed that all items of both variables had correlation coefficients above the threshold value (0.2387) with significance levels below 0.05. Thus, all items were considered valid.

Reliability was tested using Cronbach's Alpha. The values for both variables were above 0.60, indicating strong internal consistency:

1. Adaptive Supervision : $\alpha = 0.3231$ (5 items)
2. Employee Performance : $\alpha = 0.3678$ (6 items)

This confirms that the research instrument was reliable [15].

4.2 Regression Analysis

4.2.1 Simple Linear Regression

A regression analysis was conducted to evaluate the effect of Adaptive Supervision on Employee Performance.

Table 2. Regression Results

Model	B	Std. Error	Beta	t
(Constant)	9.871	2.322	—	4.176
Adaptive Supervision	1.151	0.176	0.731	9.717

Dependent Variable: Employee Performance

The regression analysis results indicate that the constant value is 9.871 with a t-value of 4.176, suggesting that employee performance maintains a positive baseline even in the absence of adaptive supervision as a predictor. The regression coefficient (B) for Adaptive Supervision

is 1.151, with a standard error of 0.176, and the standardized Beta value is 0.731, demonstrating a strong positive effect. The t-value of 9.717 confirms that the relationship between adaptive supervision and employee performance is statistically significant.

These findings imply that for every one-unit increase in adaptive supervision, employee performance is expected to increase by 1.151 units. This suggests that when supervisors tailor their oversight to employee needs—providing guidance, feedback, and autonomy as appropriate—employees tend to perform their tasks more effectively and efficiently. The high Beta value further reinforces that adaptive supervision is a dominant predictor of employee performance in this organizational context.

Overall, the regression results highlight the importance of adaptive supervision as a critical factor influencing employee performance. Effective implementation of adaptive supervisory practices can enhance productivity, accountability, and work quality, particularly in public sector institutions like the Secretariat Office of Binjai City, where high employee performance is essential for organizational effectiveness and service delivery.

4.2.2 Coefficient of Determination (R^2)

The coefficient of determination (R^2) was calculated to measure the proportion of variance in Employee Performance explained by Adaptive Supervision.

Table 3. Coefficient of Determination

Model	R	R^2	Adjusted R^2
1	0.754	0.553	0.697

Source: SPSS output, version 25.0

The model summary indicates that the correlation coefficient (R) is 0.754, demonstrating a strong positive relationship between adaptive supervision and employee performance. This indicates that higher levels of adaptive supervision are strongly associated with higher levels of employee performance within the organization.

The coefficient of determination (R^2) is 0.553, meaning that 55.3% of the variance in employee performance can be explained by adaptive supervision. This shows that adaptive supervision plays a significant role in shaping employee performance. The Adjusted R^2 value of 0.697 suggests that after accounting for the sample size and number of predictors, the model maintains strong explanatory power, confirming that adaptive supervision is a substantial predictor of employee performance in this context.

These results also imply that while adaptive supervision significantly influences employee performance, the remaining 44.7% of variance is explained by other factors not included in the model, such as organizational culture, motivation, work environment, and additional leadership practices. Overall, the findings reinforce the importance of adaptive supervision in enhancing employee performance, particularly in public sector institutions where consistent service delivery and organizational effectiveness are critical.

4.2.3 Hypothesis Testing (t-Test)

The hypothesis testing was carried out using the t-test.

H_0 : Adaptive Supervision does not positively influence Employee Performance.

H_a : Adaptive Supervision positively influenced Employee Performance.

Table 4. t- Test Result

Model	B	Std. Error	Beta	t
(Constant)	9.587	2.556	—	4.226
Adaptive Supervision	1.166	0.144	0.743	9.322

Dependent Variable: Employee Performance

The regression analysis for hypothesis testing shows that the constant value is 9.587 with a t-value of 4.226, indicating that employee performance maintains a positive baseline even in the absence of adaptive supervision as a predictor. The regression coefficient (B) for Adaptive Supervision is 1.166 with a standard error of 0.144, and the standardized Beta value is 0.743, reflecting a strong positive influence on employee performance. The t-value of 9.322 exceeds the critical threshold ($p < 0.05$), confirming that the effect of adaptive supervision on employee performance is statistically significant.

These results suggest that for every one-unit increase in adaptive supervision, employee performance is expected to rise by 1.166 units. This indicates that employees tend to perform better when supervisors provide guidance and feedback in a flexible and context-sensitive manner, allowing them to balance autonomy and support effectively. The high Beta value further reinforces that adaptive supervision is a dominant predictor of performance in this organizational context.

Overall, the findings support the alternative hypothesis (H_a) that adaptive supervision has a positive and significant effect on employee performance, while rejecting the null hypothesis (H_0). This emphasizes the critical role of adaptive supervisory practices in public sector institutions, such as the Secretariat Office of Binjai City, where sustained employee performance is vital for efficient service delivery and organizational success.

Conclusion

The findings of this study indicate that adaptive supervision has a significant positive effect on employee performance at the Secretariat Office of Binjai City. The descriptive analysis shows that both adaptive supervision and employee performance are perceived at high levels by respondents, with moderate to low variability, suggesting general consistency in perceptions across employees.

The regression analysis demonstrates that adaptive supervision is a strong predictor of employee performance, with a standardized Beta value of 0.743 and a statistically significant t-value of 9.322. The coefficient of determination ($R^2 = 0.553$) indicates that adaptive supervision explains 55.3% of the variance in employee performance, highlighting its substantial contribution to improving productivity and work quality in the public sector.

Overall, the study underscores that effective implementation of adaptive supervisory practices enhances employee performance, fostering accountability, efficiency, and motivation. The results emphasize the importance of flexible, responsive supervision in public sector institutions, where consistent service delivery and organizational effectiveness are critical. These findings provide practical implications for managers and policymakers aiming to optimize human resource performance through adaptive leadership strategies.

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