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The Effect of Budget Efficiency and Online Absence System on ASN Performance in the Department of Food Crop, Horticulture and Plantations of Sungai Penuh City with Motivation as an Intervening Variable

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This study aims to examine the influence of budget efficiency and an online attendance system on the performance of civil servants (ASN) at the Food Crops, Horticulture, and Plantation Service in Sungai Banyak City, with motivation as an intervening variable. Data collection methods included a survey and questionnaire distribution, with a sample of 100 respondents. The analysis method used was structural equation modeling using SmartPLS. The results showed a significant effect of budget efficiency on motivation. There was a significant effect of the online attendance system on motivation. There was a significant effect of budget efficiency on performance. There was a significant effect of the online attendance system on performance. There was a significant effect of motivation on performance. Motivation mediates the effect of budget efficiency on performance. Motivation mediated the effect of the online attendance system on performance.
Keywords: Budget Efficiency, Online Attendance System, Motivation, and Performance

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1. Introduction

Human resources are the most important resource in managing and carrying out organizational functions within an organization. Organizational functions within an organization are fully controlled by human resources. Organizations with good human resources will be able to carry out the company's organizational functions well. Organizational functions carried out properly by existing human resources within the organization will be able to support performance and increase the organization's productivity. Currently, HR management is changing and the stand-alone specialized function has become a function integrated with all other functions within the organization, to jointly achieve predetermined goals and have a very strategic planning function within the organization. In other words, the old HR function has become more strategic. All of these HR potentials influence the organization's efforts to achieve its goals. In the process of achieving goals, an evaluation of employee performance achievement is necessary.[1].

According to[2] performance iswork results in terms of quality and quantity achieved by an employee in carrying out his duties in accordance with the responsibilities given to him. The factors that influence performance are Ability and Motivation. According to[3] Factors that influence performance are knowledge, skills, competence, compensation, motivation, leadership, enthusiasm, work environment, organizational commitment and job satisfaction.. Performance is not an individual characteristic, such as talent or ability, but is a manifestation of the talent or ability itself.

Performance is the results of work and work behavior achieved in completing assigned tasks and responsibilities within a specific period. Performance is a function of motivation and ability. To complete a task or job, a person should have a certain degree of willingness and ability. Performance is the work results achieved by employees in developing their tasks and work originating from the organization. Performance is also a work result produced by an individual through an organizational or company process that can be measured concretely and compared through standards that have been determined by the company or organization.

Work motivation is a way to encourage employees to work according to expectations. Providing motivation to employees can improve performance, resulting in high work enthusiasm and completing tasks assigned by management. Every manager's job is to ensure that employees have a high level of motivation by providing monetary and non-monetary incentives. Highly motivated employees have high work productivity and performance. According to[4]states that work motivation is a way to encourage employees to work according to expectations. Providing motivation to employees can improve performance, leading to high work enthusiasm and completing tasks assigned by management.

E-attendance, or electronic attendance, is conducted via smartphone or desktop by checking in using GPS. Employees can check in by sending a selfie so that their location can be detected by the system. The use of technology is an attitude in which individuals identify themselves with the goals and expectations of the organization where they work and strive to maintain membership in the organization to achieve those goals. Technology is the entire means to provide goods necessary for the continuity and comfort of human life. Recent technological developments, including the printing press, telephone, and the Internet, have reduced physical barriers to communication and enabled humans to interact freely on a global scale. [5].

The Food Crops, Horticulture, and Plantation Service is located at Jl. Jendral Basuki Rahmat, No. 007, Ranah Village, Pesisir Bukit District, Sungai Penuh City. As a regional government agency, this service is at the forefront of developing the agricultural and plantation sectors in the Sungai Penuh City area.This agency's primary duties include formulating and implementing policies, providing technical guidance, and monitoring and evaluating the food crops, horticulture, and plantation sectors.Department of Food Crops, Horticulture and Plantations Sungai Penuh City is a strategic institution tasked with formulating policies and supporting agriculture through the provision of seeds, infrastructure, training, pest and disease control, and the promotion of superior commodities and environmentally friendly agricultural methods. Its programs demonstrate a strong commitment to farmer welfare and the city's food security. It was concluded that the level of employee performance was not optimal, allegedly caused by budget efficiency and the online attendance system through work motivation.

2. Method

Structural Equation Modeling (SEM) Analysis

This study used the Structural Equation Modeling (SEM) analysis tool using the SmartPLS program. SmartPLS is a component-based approach for testing structural equation models, commonly called SEM. SmartPLS is based on the idea of having two iterative procedures that use least squares estimation for single and multi-component models. By applying these procedures, this algorithm aims to minimize the variance of all dependent variables, therefore the cause and direction between all variables need to be clearly defined. SmartPLS is divided into measurement models and structural models. SmartPLS is a powerful method because it is not based on many assumptions. Data does not have to be multivariate normal distribution (indicators with categorical, ordinal, interval, and ratio scales can be used in the same

model). SmartPLS is also more efficient with algorithmic calculations that are capable of estimating larger and more complex models with hundreds of latent variables and thousands of indicators.[21].

Measurement Model Test (Outer Model)

In data analysis techniques using SmartPLS, there are three criteria for assessing the outer model: Convergent Validity, Discriminant Validity, and Composite Reliability. Convergent validity of a measurement model with reflective indicators is assessed based on the correlation between item scores or component scores estimated using SmartPLS software. An indicator is considered to have good reliability if it has a value above 0.7. We can see this figure by referring to the Outer Loading table in SmartPLS.[22].In this composite reliability test, there are two tables that must be observed: the values contained in the Composite Reliability table and Cronbach's Alpha, which must be greater than 0.7. For the Discriminant Validity test, it can be seen from the cross-loading value. The correlation value of the indicator to its construct must be greater than the correlation value between the indicator and other constructs. There is another way to test Discriminant Validity by comparing the root value of the Average Variance Extracted (AVE) for each construct with the correlation between the construct and other constructs.

1. Measurement Modelor Validity
   The outer model assessment aims to assess the correlation between item or indicator scores and their construct scores, indicating the level of validity of a statement item. Outer model testing is conducted based on the results of a questionnaire trial conducted for all research variables. There are three criteria in the use of data analysis techniques to assess the outer model: Convergent Validity, Discriminant Validity, and Composite Reliability. In the development stage, a correlation of 0.50 to 0.6 is considered acceptable. In research, the limit for convergent validity is above 0.7.
2. Reliability
   Once the data validity level is known, the next step is to determine the level of data reliability or the level of reliability of each construct or variable. This assessment is done by looking atComposite reliability value and Crombach alpha value. A construct is said to be reliable if it provides a Crombach alpha value > 0.70.
3. R-square
   Next, as explained previously, the inner model assessment will be evaluated through the R-Squared value, to assess the influence of certain exogenous latent constructs on endogenous latent constructs to see whether they have a substantive influence.

Path Coefficient and Hypothesis Testing

Testing the inner model or structural model is conducted to examine the relationship between variables, the significance value, and the R-square of the research model. Model assessment using PLS begins by examining the R-square for each dependent latent variable. Changes in the R-square value can be used to assess the influence of a particular independent latent variable on the dependent latent variable and whether it has a substantive effect.

3. Results and Disccusion

Research Description

Table 1. Calculation of Questionnaire Distribution Results

No.	Questionnaire	Amount	Percentage%
1	Distributed questionnaires	100	100
2	Unreturned questionnaires	0	0

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No.	Questionnaire	Amount	Percentage%
3	Incorrectly filled out (defective or damaged) questionnaire	0	0
4	Questionnaires suitable for data processing	100	100

Source: Survey Results, 2026

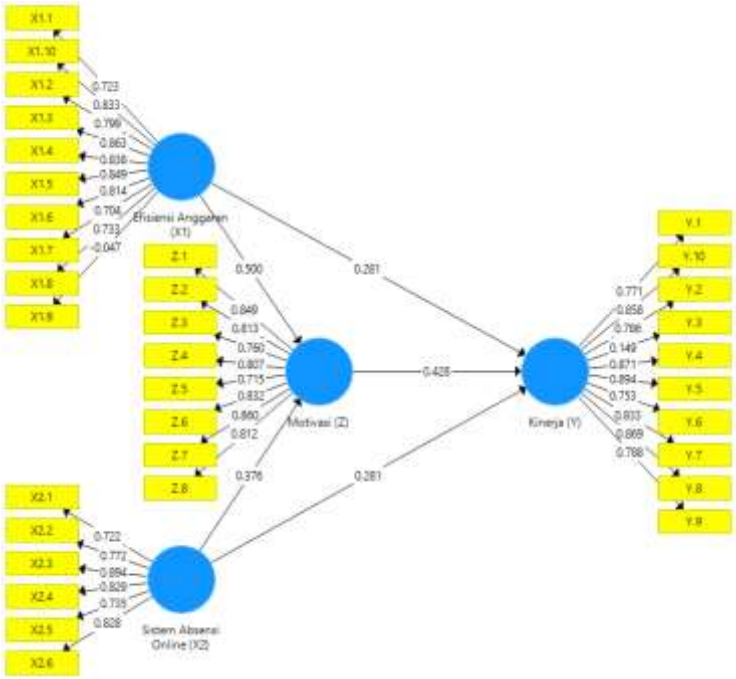
Research Data Analysis

The data processing technique in this study uses the SEM method based on Partial Least Square (PLS) which requires two stages for the assessment of a research model: the outer model and the inner model. The outer model assessment aims to assess the correlation between item or indicator scores and their construct scores, which indicate the level of validity of a statement item. Outer model testing is carried out based on the results of questionnaire trials that have been conducted for all research variables. There are three criteria in the use of data analysis techniques to assess the outer model: Convergent Validity, Discriminant Validity, and Composite Reliability. In the development stage, a correlation of 0.50 to 0.6 is considered adequate or acceptable. In research, the limit for convergent validity values is above 0.7.

Outer Model (Structural Model) Testing Before Elimination

Based on the resultsTesting the outer model using SmartPLS, obtained the correlation values between the statement items of the research variables as follows:

Figure 1. Outer Loadings Before Elimination



In data analysis techniques using SmartPLS, there are three criteria for assessing the outer model: convergent validity, discriminant validity, and composite reliability. Convergent validity of a measurement model with reflective indicators is assessed based on the correlation between item scores or component scores estimated with PLS software. Indicators are considered to have good reliability if they have a value above 0.7. There are three criteria in the use of data analysis techniques to assess the outer model: convergent validity, discriminant validity, and composite reliability. In the development stage, a correlation of 0.50 to 0.6 is considered adequate or acceptable. In research, the limit value of convergent validity is above 0.7.

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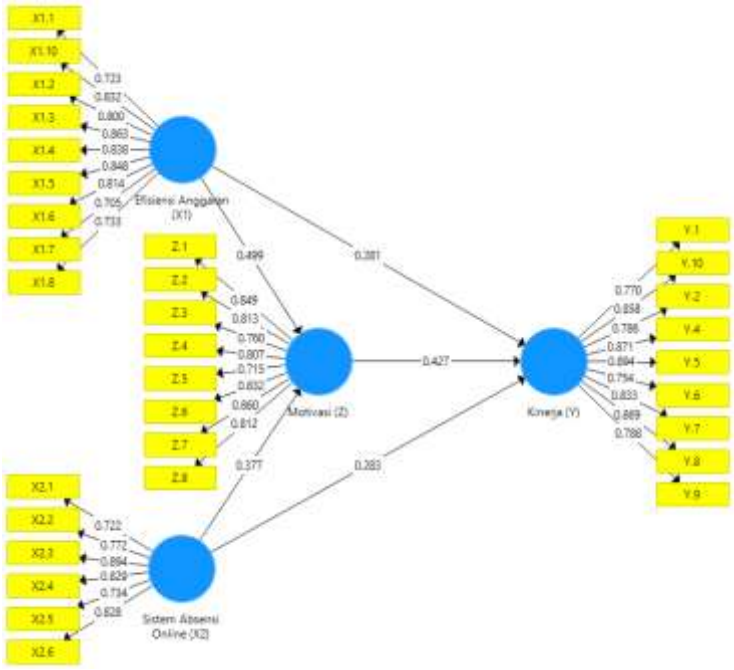
Outer Model (Structural Model) Testing After Elimination

Based on the resultsTesting the outer model using SmartPLS, obtained the correlation values between the statement items of the research variables as follows:

Figure 2. Outer Loadings After Elimination



Average Variance Extracted (AVE) Assessment

The validity criteria for a construct or variable can also be assessed through the Average Variance Extracted (AVE) value for each construct or variable. A construct is considered to have high validity if its value is above 0.50. The AVE values for all variables are presented below.

Table 2. Average Variance Extracted (AVE) Value

	Average Variance Extracted (AVE)
Performance (Y)	0.682
Budget Efficiency (X1)	0.635
Online Attendance System (X2)	0.638
Motivation (Z)	0.652

Based on Table 2, it can be concluded that all constructs or variables above meet good validity criteria. This is indicated by the Average Variance Extracted (AVE) value above the recommended 0.50 criterion.

Outer Model Testing (Structural Model)

The next testing process is testing the inner model, or structural model, which aims to determine the relationships between hypothesized constructs. The structural model is evaluated by observing the R-Square value for the endogenous construct and the influence it receives from the exogenous construct.

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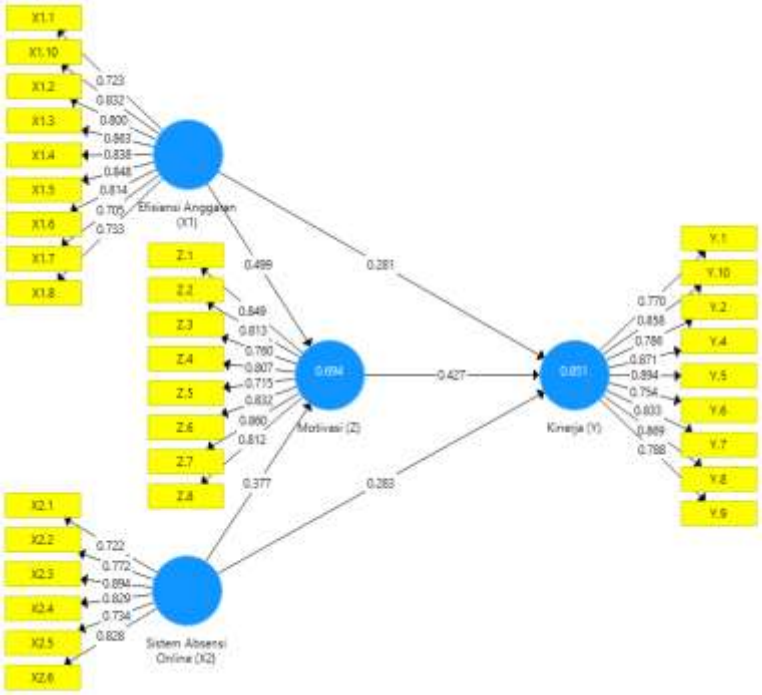
Figure 3. Structural Outer Model



Based on the image above, the structural model above can be formed into the following model equation:

a. Equation model I, is a description of the magnitude of the influenceconstructbudget efficiency and online attendance systemtomotivation with the existing coefficients plus the error rate which is an estimation error or which cannot be explained in the research model.

$$Z = 0.499X1 + 0.377X2$$

b. Equation model II, is a description of the magnitude of the influenceconstructbudget efficiency, online attendance system and motivation toperformance with each coefficient that exists for each construct plus an error which is an estimation error.

$$Y = 0.281X1 + 0.283X2 + 0.427\ Z$$

Next, as explained previously, the inner model assessment will be evaluated through the R-Squared value, to assess the influence of certain exogenous latent constructs on endogenous latent constructs to see whether they have a substantive influence. The following is the R-Square estimate:

Table 3. Evaluation of R Square Value

	R Square	*R Square Adjusted*
Performance (Y)	0.851	0.846
Motivation (Z)	0.694	0.688

Source: SmartPLS Outer Model Test Results, 2026

In the table above, the r-square value of the performance variable is 0.851 or 85.1%, so the contribution of the budget efficiency variable, online attendance systemdThe influence of motivation on performance is 85.1%, the remaining 14.9% is influenced by other variables outside this research, such as job satisfaction, work discipline and leadership style.

The R-Square value of the motivation variable is 0.694 or 69.4%, so the contribution of the budget efficiency and online attendance system variables to motivation is 69.4%, the remaining 30.6% is influenced by other variables outside this research such as job satisfaction, work discipline and leadership style.

PenHypothesis test

TestingThe hypothesis aims to answer the problems in this study, namely the influence of certain exogenous latent constructs on certain endogenous latent constructs, either directly or indirectly through mediating variables. Hypothesis testing in this study can be assessed from the magnitude of the t-statistic or t-count compared to the t-table of 1.96 at 5% alpha. If the t-statistic/t-count < t-table 1.96 at 5% alpha, then Ho is rejected and if the t-statistic/t-count > t-table 1.96 at 5% alpha, then Ha is accepted. The following SmartPLS output results illustrate the estimated output for testing the structural model.

Table 4. Results for Inner Weights Direct Affect

	Original Sample (O)	*Sample Mean (M)*	*Standard Deviation (STDEV)*	*T Statistics (|O/STDEV|)*	*P Values*
Budget Efficiency (X1) -> Motivation (Z)	0.499	0.503	0.106	4,693	0,000
Online Attendance System (X2) -> Motivation (Z)	0.377	0.368	0.129	2,917	0.004
Budget Efficiency (X1) -> Performance (Y)	0.281	0.281	0.129	2,182	0.030
Online Attendance System (X2) -> Performance (Y)	0.283	0.278	0.096	2,939	0.003
Motivation (Z) -> Performance (Y)	0.427	0.432	0.087	4,888	0,000
Budget Efficiency (X1) -> Motivation (Z) -> Performance (Y)	0.213	0.214	0.051	4,208	0,000
Online Attendance System (X2) -> Motivation (Z) -> Performance (Y)	0.161	0.165	0.078	2,076	0.038

4. Conclusion

There is a significant influence of budget efficiency on motivation. There is a significant influence of the online attendance system on motivation. There is a significant influence of budget efficiency on performance. There is a significant influence of the online attendance system on performance. There is a significant influence of motivation on performance. Motivation mediates the influence of budget efficiency on performance. Motivation mediates the influence of the online attendance system on performance.

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