

The Influence of Asset Management on Optimization of Regional Asset Management at the Department of Education, Culture, Youth and Sports of Semarang Regency

Yasintha Mukti Wardhani

Faculty of Economic, Universitas Islam Sultan Agung (UNISSULA) Semarang, Indonesia, E-mail: yasintha428@gmail.com

Abstract. *This study aims to analyze the effect of asset inventory, asset control and supervision, and asset valuation on the optimization of regional asset management at the Department of Education, Culture, Youth, and Sports (Disdikbudpora) of Semarang Regency. Using a quantitative survey method, a sample of 85 asset managers was selected via Proportional Stratified Random Sampling from 543 work units. The collected data were analyzed using multiple linear regression. The results revealed that asset inventory and asset valuation have a positive and significant effect on asset optimization, with valuation being the most dominant factor. Conversely, asset control and partial supervision showed no significant effect due to a wide span of control. Simultaneously, all three variables significantly influence asset management optimization, accounting for 75.1% of the variance ($R^2 = 0.751$).*

Keywords: Asset Control and Supervision; Asset Inventory; Asset Optimization; Asset Valuation; Regional Property.

1. Introduction

Regional asset management is an integral part of good governance practices. In the context of public services, sound asset management not only serves as a form of accountability for state assets but also as a means to achieve efficiency and effectiveness in the utilization of public resources. This effort aligns with the achievement of national education quality targets, one of the main indicators of which is reflected in Government Regulation Number 57 of 2021 concerning National Education Standards, where meeting quality facilities and infrastructure standards is an absolute foundation for creating a safe, comfortable, and inclusive learning environment. Within the government structure, elementary and secondary schools are the main pillars of public service implementation in the education sector. Therefore, asset governance and management at the educational unit level are vital, as they directly impact the optimization of the teaching and learning process and the achievement of student competencies. Regional assets, as part of the nation's assets, play a strategic role in supporting the implementation of government duties and improving the quality of services to the public. Therefore, optimal asset management in the education sector is an urgent need.

One important approach to optimizing asset management is through structured asset management, which includes inventory, assessment, and monitoring and control processes. However, in the field, various fundamental problems are still found in the implementation of asset management, especially in local government institutions. In contrast to one-stop government agencies with centralized asset control, the Semarang Regency Education, Culture, Youth, and Sports Office faces the challenge of an extraordinarily wide span of control. This agency is responsible for thousands of regional assets geographically spread across 19 Regional Coordinators (Korwil), 2 Learning Activity Centers (SKB), 19 public kindergartens, 451 public elementary schools, and 52 public junior high schools. This wide scale of distribution and geographic distance creates high operational complexity for asset managers in terms of inventory, supervision, and periodic asset assessment, thus the risk of inefficiencies in recording and oversight is much greater.

This problem was highlighted by the findings of the Supreme Audit Agency (BPK) of the Republic of Indonesia, Central Java Province Representative Office, in its Audit Report (LHP) on the Semarang Regency Government Financial Report for Fiscal Year 2021, Number 69B/LHP/XVIII.SMG/05/2022, dated May 23, 2022. The report stated that the management and administration of fixed assets were not supported by adequate controls, particularly within the Education, Culture, Youth, and Sports Office. These findings include:

1. Recording of Goods Inventory Cards (KIB) in SIPKD has not been done completely and informatively

Table Auditor Findings Data

2021 Auditor Findings Data

No	Types of KIB	Information	
1	KIB A - Land	a.	There is land that does not have area information and there is still area information of 1m ²
		b.	There is land that does not yet have address/location information.
2	KIB B - Equipment and Machinery	a.	There are motor vehicles that are not all equipped with information on police numbers, engine numbers, BPKB numbers and chassis numbers;
		b.	There is equipment and machinery that is not equipped with brand/type information;
		c.	There is no information on the current condition of the equipment and machinery recorded in KIB B.
3	KIB C - Buildings and Structures	a.	There are buildings and structures that are not equipped with extensive information;
		b.	There are buildings and structures that are not equipped with information on use and address/location;
		c.	There are buildings and structures that are not equipped with land status information.
4	KIB D - Roads, Bridges, Irrigation and Networks (JIIJ)	a.	There are JIIJs that are not yet equipped with length, width and area information;
		b.	There are JIIJs that have not been equipped with information on the acquisition document number.

5	KIB E - Other Fixed Assets	a.	There are books that do not yet have information in the form of title/type and location;
		b.	There are musical instruments, art props, but there is no information regarding type and location.
6	KIB F - Construction in Progress (KDP)	a.	There is no detailed information on the contract and work contract number that is the KDP;
		b.	There is no start and end date for the work that is KDP.
7	Intangible Assets (IAT)	a.	There is no information regarding the current usage status of ATB (whether it is still in use or not).

Source: Semarang Regency Education, Culture, Youth and Sports Office

2. There are fixed assets whose whereabouts are unknown

Table 2021 Auditor Findings Data 2021 Auditor Findings Data

No	Type	Brand	Type	Year	license number	plate
1	Motorcycle	Suzuki	A 100	1981	H 769 C	
2	Motorcycle	Suzuki	A 100	1981	H 778 C	
3	Motorcycle	Suzuki	A 100	1981	H 771 C	
4	Motorcycle	Suzuki	A 100	1981	H 774 C	
5	Motorcycle	Suzuki	A 100	1994	H 502 CC	
6	Motorcycle	Suzuki	A 100	1995	H 712 CC	
7	Motorcycle	Suzuki	A 100	1997	H 533 LS	

Source: Semarang Regency Education, Culture, Youth and Sports Office

3. There are Fixed Assets that are Severely Damaged but are still recorded in the KIB

Table 2021 Auditor Findings Data 2021 Auditor Findings Data

No	Type	Brand	Type	Year
1	Motorcycle	Suzuki	RC 100	1994
2	Motorcycle	Suzuki	RC 100	1994

Source: Semarang Regency Education, Culture, Youth and Sports Office

4. Fixed assets are recorded as a single unit/not detailed per unit of goods
5. There is a discrepancy between the recording in KIB C and the actual conditions.

2. Research Methods

This research approach uses survey research that takes samples from one population and uses questionnaires as the main tool for data collection (Singarimbun, 2013). This research method is intended as a model through hypothesis testing to find and explain causal relationships between variables. The survey in this study is a model used by the Semarang Regency Education, Culture, Youth, and Sports Office to determine the influence of the Asset Inventory (X1), Asset Supervision and Control (X2), and Asset Valuation (X3) variables on Asset Management Optimization (Y).

3. Results and Discussion

3.1. Overview of Research Objects and Respondents

This research was conducted in the work units of managers and users of regional assets within the Semarang Regency Education, Culture, Youth, and Sports Office (Disdikbudpora), which include Public Kindergartens (TK), Public Elementary Schools (SD), Public Junior High Schools (SMP), Learning Activity Centers (SKB), and District Area Coordinators (Korwilcam) for Education. Based on the results of the sample size calculation using the Slovin Formula on a population of 543 work units at a 10% error rate, a sample of 85 respondents was obtained which was determined by Proportional Stratified Random Sampling, with respondents being Asset Administrators or Assistant Asset Administrators in each work unit.

The research questionnaire was distributed to 85 respondents online via Google Forms. All returned questionnaires were found to be complete and suitable for further processing, as indicated by the consistent data count ($N = 85$) across all statistical data processing results below. The distribution of the research sample by work unit is presented in the following table:

Table Distribution of research samples based on work units

No	Work unit	Population	Sample
1	State Kindergarten (TK)	19	3
2	Public Elementary School (SD)	451	70
3	Public Junior High School (SMP)	52	8
4	Learning Activity Center (SKB)	2	1
5	Sub-district Area Coordinator (Korwilcam)	19	3
Total		543	85

Source: Sample calculation results, Chapter III (reprocessed), 2026

1. Characteristics of Research Respondents

In addition to the sample distribution based on work units in Table, the characteristics of the respondents in this study were also identified based on their position and length of time managing assets (length of service) in their respective work units, as presented in the following table.

Table Characteristics of Research Respondents Based on Position

No	Position	Number (n)	Percentage (%)
1	Goods Manager	69	81.2

No	Position	Number (n)	Percentage (%)
2	Assistant Procurement Manager	16	18.8
Total		85	100.0

Source: Processed primary data, 2026

Based on Table, the majority of respondents, 69 respondents (81.2%), served as Asset Managers, while the remaining 16 respondents (18.8%) served as Assistant Asset Managers. This indicates that most of the research data was obtained directly from those primarily responsible for asset management in each work unit.

Table Characteristics of Research Respondents Based on Length of Asset Management (Term of Service)

No	Length of Asset Management	Number (n)	Percentage (%)
1	25 years	44	51.8
2	> 5 Years	41	48.2
Total		85	100.0

Source: Processed primary data, 2026

Based on Table, 44 respondents (51.8%) had managed assets for 2–5 years, while 41 respondents (48.2%) had managed assets for more than 5 years. This data indicates that the study respondents generally had sufficient experience in asset management in their respective work units.

2. Descriptive Statistics of Research Variables

Descriptive statistics are used to provide an overview of the tendency of respondents' answers to each statement item in each research variable. Interpretation of the average (mean) value of respondents' answers is based on a scale range of $(5-1)/5 = 0.8$, resulting in the following categories: 1.00 – 1.80 (Very Low), 1.81 – 2.60 (Low), 2.61 – 3.40 (Medium), 3.41 – 4.20 (High), and 4.21 – 5.00 (Very High).

a. Asset Inventory Variable (X1)

Table Asset Inventory Variable (X1)

Item	N	Min	Max	Mean	Standard Deviation	Category
P1	85	3	5	4.42	0.543	Very high
P2	85	2	5	4.27	0.662	Very high
P3	85	3	5	4.16	0.614	Tall
P4	85	3	5	4.34	0.589	Very high
P5	85	3	5	4.24	0.549	Very high
P6	85	3	5	4.38	0.556	Very high
P7	85	3	5	4.20	0.594	Tall

Source: Processed primary data, 2026

b. Asset Monitoring and Control Variable (X2)

Table Asset Monitoring and Control Variable (X2)

Item	N	Min	Max	Mean	Standard Deviation	Category
P1	85	3	5	4.09	0.570	Tall
P2	85	3	5	4.24	0.549	Very high
P3	85	3	5	4.14	0.538	Tall

Item	N	Min	Max	Mean	Standard Deviation	Category
P4	85	3	5	4.40	0.561	Very high
P5	85	3	5	4.46	0.524	Very high

Source: Processed primary data, 2026

c. Asset Valuation Variable (X3)

Table Asset Valuation Variable (X3)

Item	N	Min	Max	Mean	Standard Deviation	Category
P1	85	3	5	4.24	0.549	Very high
P2	85	3	5	4.22	0.564	Very high
P3	85	3	5	4.21	0.490	Very high
P4	85	3	5	4.28	0.526	Very high
P5	85	3	5	4.24	0.549	Very high

Source: Processed primary data, 2026

d. Asset Management Optimization Variable (Y)

Table Descriptive Statistics Per Item

Item	N	Min	Max	Mean	Standard Deviation	Category
P1	85	3	5	4.49	0.548	Very high

Item	N	Min	Max	Mean	Standard Deviation	Category
P2	85	3	5	4.22	0.564	Very high
P3	85	2	5	4.26	0.601	Very high
P4	85	3	5	4.38	0.511	Very high
P5	85	3	5	4.32	0.539	Very high

Source: Processed primary data, 2026

In addition to descriptive statistics per item, calculations were also carried out on the total score for each research variable as presented in the following table:

Table Research Variable Table

Variables	N	Min	Max	Mean	Standard Deviation	Average per Item	Category
Asset Inventory (X1)	85	23	35	30.01	3,018	4.29	Very high
Asset Monitoring and Control (X2)	85	15	25	21.33	2,168	4.27	Very high
Asset Valuation (X3)	85	15	25	21.19	2,255	4.24	Very high
Asset Management Optimization (Y)	85	17	25	21.67	2,249	4.33	Very high

Source: Processed primary data, 2026

Based on Table, all research variables, namely Asset Inventory (X1), Asset Supervision and Control (X2), Asset Valuation (X3), and Asset Management Optimization (Y), have an average value per item in the range of 4.21 – 5.00 with a Very High category. This indicates that in general, respondents gave a very positive assessment of the implementation of inventory,

supervision and control, assessment, and optimization of asset management in work units within the Semarang Regency Education, Culture, Youth and Sports Office.

3.2. Research Instrument Test Results

1. Validity Test Results

Validity testing was conducted to determine the accuracy of the statement items in the questionnaire in measuring the variables studied. The test was conducted by comparing the calculated r value (Pearson Correlation between item scores and total scores) to the table r value at a significance level of 5% with degrees of freedom (df) = $n-2$ = 83, which is 0.2133. An item is declared valid if the calculated r value $>$ table r and the significance value $<$ 0.05.

a. Asset Management Optimization Variable (Y)

Table Asset Management Optimization Variable Table (Y)

Item	r count	r table	Sig.	Information
P1	0.752	0.2133	<0.001	Valid
P2	0.837	0.2133	<0.001	Valid
P3	0.787	0.2133	<0.001	Valid
P4	0.834	0.2133	<0.001	Valid
P5	0.863	0.2133	<0.001	Valid

Source: Primary data processed by SPSS, 2026

b. Asset Inventory Variable (X1)

Table Asset Inventory Variable Table (X1)

Item	r count	r table	Sig.	Information
P1	0.658	0.2133	<0.001	Valid

Item	r count	r table	Sig.	Information
P2	0.732	0.2133	<0.001	Valid
P3	0.763	0.2133	<0.001	Valid
P4	0.762	0.2133	<0.001	Valid
P5	0.803	0.2133	<0.001	Valid
P6	0.714	0.2133	<0.001	Valid
P7	0.710	0.2133	<0.001	Valid

Source: Primary data processed by SPSS, 2026

c. Asset Monitoring and Control Variable (X2)

Table Asset Monitoring and Control Variable Table (X2)

Item	r count	r table	Sig.	Information
P1	0.765	0.2133	<0.001	Valid
P2	0.815	0.2133	<0.001	Valid
P3	0.776	0.2133	<0.001	Valid
P4	0.811	0.2133	<0.001	Valid
P5	0.787	0.2133	<0.001	Valid

Source: Primary data processed by SPSS, 2026

d. Asset Valuation Variable (X3)

Table Asset Valuation Variable Table (X3)

Item	r count	r table	Sig.	Information
P1	0.839	0.2133	<0.001	Valid
P2	0.883	0.2133	<0.001	Valid
P3	0.782	0.2133	<0.001	Valid
P4	0.818	0.2133	<0.001	Valid
P5	0.878	0.2133	<0.001	Valid

Source: Primary data processed by SPSS, 2026

Based on the test results on the four variables above, all statement items in the variables Asset Management Optimization (Y), Asset Inventory (X1), Asset Supervision and Control (X2), and Asset Valuation (X3) have a calculated r value greater than the r table (0.2133) with a significance level below 0.05. Thus, all instrument items are declared valid and suitable for use as measuring tools in this study.

2. Reliability Test Results

Reliability testing is used to determine the consistency of respondents' answers to statement items in each variable when measurements are repeated. Testing is conducted using the Cronbach's Alpha method, where a variable is declared reliable if the Cronbach's Alpha value is > 0.60.

Table Cronbach's Alpha Table

Variables	Cronbach's Alpha	Critical Value	Information
Asset Management Optimization (Y)	0.871	0.60	Reliable

Variables	Cronbach's Alpha	Critical Value	Information
Asset Inventory (X1)	0.857	0.60	Reliable
Asset Monitoring and Control (X2)	0.850	0.60	Reliable
Asset Valuation (X3)	0.896	0.60	Reliable

Source: Primary data processed by SPSS, 2026

The test results show that all four research variables have Cronbach's Alpha values above 0.60, with the highest value for the Asset Valuation variable (0.896) and the lowest for the Asset Monitoring and Control variable (0.850). Thus, all research instruments are declared reliable and consistent and can be used for further testing.

• Classical Assumption Test Results

Before conducting multiple linear regression analysis, classical assumption tests were first carried out, including normality tests, multicollinearity tests, and heteroscedasticity tests to ensure that the resulting regression model is a Best Linear Unbiased Estimator (BLUE).

• Normality Test Results

The normality test aims to determine whether the residual values in the regression model are normally distributed. Initial testing was performed on the scores of each variable using the Kolmogorov-Smirnov and Shapiro-Wilk tests, with the following results.

Table Kolmogorov-Smirnov and Shapiro-Wilk Test Table

Variables	Statistics (KS)	Sig. (KS)	Statistics (SW)	Sig. (SW)
Asset Management Optimization (Y)	0.183	<0.001	0.901	<0.001
Asset Inventory (X1)	0.172	<0.001	0.943	<0.001
Asset Monitoring and Control (X2)	0.201	<0.001	0.929	<0.001

Variables	Statistics (KS)	Sig. (KS)	Statistics (SW)	Sig. (SW)
Asset Valuation (X3)	0.230	<0.001	0.865	<0.001

Source: Primary data processed by SPSS, 2026

The results of the normality test in the table above show that the significance value of all variables (Y, X1, X2, and X3) is below 0.05, which when viewed from the raw scores of each variable indicates an abnormal data distribution. This condition is a normal occurrence in data from Likert scale measurements. It should be emphasized that the assumption of normality in the multiple linear regression model is essentially required on the residual (error) value of the model, not on the raw score of each variable. Therefore, the normality test that determines the suitability of the model is carried out on the Unstandardized Residual value through the One-Sample Kolmogorov-Smirnov Test, with the following results.

Table One-Sample Kolmogorov-Smirnov Test Method Test Table

Information	Mark
N	85
Mean	0.0000000
Standard Deviation	1.12186196
Test Statistics	0.073
Asymp. Sig. (2-tailed)	0.200

Source: Primary data processed by SPSS, 2026

Based on the test results above, the Asymp. Sig. (2-tailed) value was obtained at 0.200, which means it is greater than 0.05. Thus, it can be concluded that the residual value of the regression model is normally distributed, so that the normality assumption in the multiple linear regression model in this study is met.

3.3. Multicollinearity Test Results

The multicollinearity test aims to determine whether a strong correlation exists between independent variables in the regression model. A good regression model should be free of multicollinearity, as indicated by a Tolerance value > 0.10 and a Variance Inflation Factor (VIF) value < 10 .

Table Multicollinearity Test Table

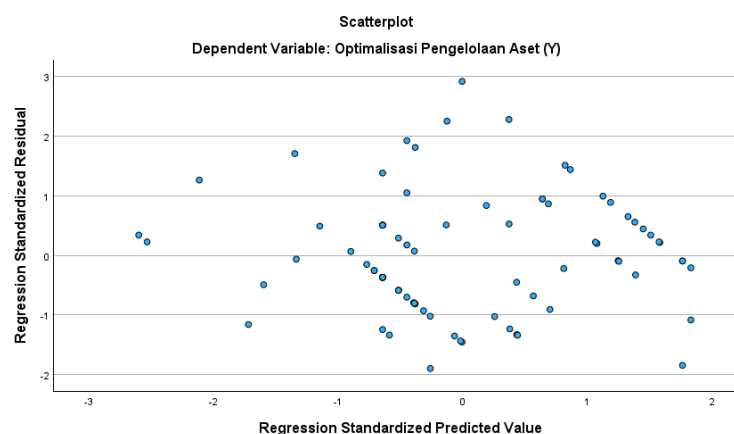
Variables	Tolerance	VIF	Information
Asset Inventory (X1)	0.439	2,280	Free
Asset Monitoring and Control (X2)	0.293	3,415	Free
Asset Valuation (X3)	0.312	3,201	Free

Source: Primary data processed by SPSS, 2026

The test results show that the three independent variables have a Tolerance value above 0.10 and a VIF value below 10. Thus, it can be concluded that there are no symptoms of multicollinearity between the independent variables in the regression model of this study.

1. Heteroscedasticity Test Results

The heteroscedasticity test aims to determine whether there is unequal variance in the residuals from one observation to another in the regression model. The test is performed using scatterplot analysis and reinforced with the Glejser test.



Source: Primary data processed by SPSS, 2026

Figure Scatterplot Heteroscedasticity Test

The scatterplot graph above shows that the data points are randomly distributed, both above and below the number 0 on the Y-axis, and do not form a clear pattern (such as wavy, widening, then narrowing). This indicates that there is no heteroscedasticity in the regression model. To strengthen the observation results of the graph, the Glejser Test was also performed by regressing the absolute value of the residual (Abs_Res) against the independent variable.

Table Glejser Test Table

Variables	Sig.	Information
Asset Inventory (X1)	0.237	Free of Heteroscedasticity
Asset Monitoring and Control (X2)	0.950	Free of Heteroscedasticity
Asset Valuation (X3)	0.266	Free of Heteroscedasticity

Source: Primary data processed by SPSS, 2026

The Glejser test results show that the significance value of all independent variables on the absolute value of the residual is above 0.05 (X1 = 0.237; X2 = 0.950; X3 = 0.266). Thus, it can be concluded that the regression model in this study does not experience symptoms of heteroscedasticity, or in other words, is homoscedastic.

2. Results of Multiple Linear Regression Analysis

After the regression model was declared to meet all classical assumption tests, a multiple linear regression analysis was then conducted to determine the direction and magnitude of the influence of the Asset Inventory (X1), Asset Supervision and Control (X2), and Asset Valuation (X3) variables on Asset Management Optimization (Y). The results of the data processing are presented in the following table.

Table Multiple linear regression analysis table

Variables	B	Std. Error	Beta	t count	Sig.
(Constant)	1,153	1,344	-	0.858	0.393
Asset Inventory (X1)	0.248	0.062	0.333	3,980	<0.001
Asset Monitoring and Control (X2)	0.131	0.106	0.126	1,230	0.222
Asset Valuation (X3)	0.485	0.099	0.486	4,905	<0.001

Source: Primary data processed by SPSS, 2026

Based on the results of data processing in the table above, the following multiple linear regression equation was obtained:

$$Y = 1.153 + 0.248 X1 + 0.131 X2 + 0.485 X3 + e$$

The regression equation can be interpreted as follows:

- The constant value of 1.153 indicates that if the variables Asset Inventory (X1), Asset Supervision and Control (X2), and Asset Valuation (X3) are assumed to have no change (value 0), then the baseline value/initial condition of Asset Management Optimization (Y) is at the level of 1.153.
- The regression coefficient of the Asset Inventory variable (X1) is 0.248 and is positive, meaning that the implementation of asset inventory that is increasingly orderly, structured, and accurate will be followed by an increase in Asset Management Optimization, assuming other variables are constant. The results of partial testing confirm that this influence is statistically positive and significant, indicating that improvements in asset data collection, recording, and reporting activities significantly encourage the efficiency and effectiveness of regional asset management.
- The regression coefficient of the Asset Supervision and Control variable (X2) is 0.131 and is positive, meaning that an increase in the asset supervision and control function tends to be in line with an increase in Asset Management Optimization, assuming other variables remain constant. However, as described in the partial test results, the influence of this variable is not statistically significant, indicating that the implementation of independent supervision has not provided a significant strong impact on asset optimization.

- d. The regression coefficient of the Asset Valuation variable (X3) is 0.485 and is positive, meaning that increasingly accurate and precise determination and estimation of asset values will significantly increase Asset Management Optimization, assuming other variables remain constant. This coefficient value is the largest among the three independent variables and has a positive and significant effect, indicating that Asset Valuation is the most dominant and best determinant factor in contributing to increasing Asset Management Optimization.

3. Hypothesis Testing Results

a. Results of the Coefficient of Determination (R^2) Test

The coefficient of determination test is used to determine how much the independent variable is able to explain the variation in the dependent variable.

Table Determination Coefficient Test Table (R^2)

R	R Square	Adjusted R Square	Standard Error of the Estimate
0.867	0.751	0.742	1,142

Source: Primary data processed by SPSS, 2026

The test results show an R Square value of 0.751 or 75.1%. This value indicates that 75.1% of the variation in the Asset Management Optimization variable (Y) can be explained jointly by the Asset Inventory (X1), Asset Supervision and Control (X2), and Asset Valuation (X3) variables, while the remaining 24.9% is explained by other variables outside the regression model of this study.

b. Simultaneous Test Results (F Test)

The F test is used to test whether all independent variables simultaneously have a significant effect on the dependent variable. The model is considered fit if the calculated F value is greater than the table F value and the significance value is less than 0.05.

Table Simultaneous Test Table (F Test)

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	319,056	3	106,352	81,484	<0.001
Residual	105,720	81	1,305		
Total	424,776	84			

Source: Primary data processed by SPSS, 2026

Based on the test results, the calculated F value was 81.484 with F table ($df_1=3$, $df_2=81$, $\alpha=0.05$) of 3.109, and a significance value of <0.001. Because the calculated F (81.484) > F table (3.109) and the significance value <0.05, it can be concluded that the regression model is declared fit, and the variables Asset Inventory, Asset Supervision and Control, and Asset Valuation simultaneously have a positive and significant effect on the Optimization of Asset Management at the Semarang Regency Education, Culture, Youth and Sports Office.

c. Partial Test Results (t-Test)

The t-test is used to determine the effect of each independent variable individually (partially) on the dependent variable. The hypothesis is accepted if the calculated t value is greater than the table t value or the significance value is less than 0.05. The t-table value at $df = 81$ and $\alpha = 0.05$ (two-tailed test) is 1.990.

Table Partial Test Table (t-Test)

Hypothesis	Influence	t count	t table	Sig.	Conclusion
H1	$X_1 \rightarrow Y$	3,980	1,990	<0.001	Accepted
H2	$X_2 \rightarrow Y$	1,230	1,990	0.222	Rejected
H3	$X_3 \rightarrow Y$	4,905	1,990	<0.001	Accepted

Source: Primary data processed by SPSS, 2026

Hypothesis Testing 1 (H1)

The Asset Inventory variable (X1) has a calculated t value of 3.980, which is greater than the t table of 1.990, with a significance value of <0.001 , which is smaller than 0.05. Thus, H0 is rejected and H1 is accepted, which means that Asset Inventory has a positive and significant effect on the Optimization of Asset Management at the Semarang Regency Education, Culture, Youth and Sports Office.

Testing Hypothesis 2 (H2)

The Asset Supervision and Control variable (X2) has a calculated t value of 1.230 which is smaller than the t table of 1.990, with a significance value of 0.222 which is greater than 0.05. Thus, H0 is accepted and H2 is rejected, which means that Asset Supervision and Control partially has no significant effect on the Optimization of Asset Management at the Semarang Regency Education, Culture, Youth and Sports Office.

Testing Hypothesis 3 (H3)

The Asset Assessment variable (X3) has a calculated t value of 4.905 which is greater than the t table of 1.990, with a significance value of <0.001 which is less than 0.05. Thus, H0 is rejected and H3 is accepted, which means that Asset Assessment has a positive and significant effect on the Optimization of Asset Management at the Semarang Regency Education, Culture, Youth and Sports Office.

4. Conclusion

Based on the results of data analysis and hypothesis testing regarding the influence of asset inventory, asset supervision and control, and asset assessment on optimizing regional asset management at the Semarang Regency Education, Culture, Youth and Sports Office (Disdikbudpora), the following conclusions can be drawn:

- 1) Asset Inventory Has a Positive and Significant Impact on Optimizing Regional Asset Management

The results of statistical testing prove that the asset inventory variable has a positive and significant partial influence on the optimization of asset management ($t_{hitung} = 3.980 > t_{tabel} = 1.990$ with a sig value < 0.001). This means that the more orderly, structured, and accurate the data collection process, recording in the Goods Inventory Card (KIB), labeling of register codes (codification), to the latest reporting of Regional Property (BMD), the more it will have a real impact on increasing the efficiency of utilization and increasing the value of assets in work units within the Semarang Regency Education, Culture, Youth and Sports Office.

2) Partial Asset Supervision and Control Does Not Have a Significant Impact on Optimizing Regional Asset Management

The results of statistical tests indicate that the asset supervision and control variables do not have a partial significant influence on the optimization of asset management ($t_{\text{count}} = 1.230 < t_{\text{table}} = 1.990$ with a sig value = 0.222. Although the direction of the relationship is positive (regression coefficient = 0.131), the magnitude of the contribution of independent supervision and control is not yet strong enough to encourage a significant increase in asset optimization. This is influenced by the wide operational control span of the Education, Culture, Youth and Sports Office which covers 543 work units spread throughout the Semarang Regency area, so that the implementation of inspections, physical verification, and internal supervision has not been able to reach all educational units in depth and evenly.

3) Asset Assessment Has a Positive and Significant Impact on Optimizing Regional Asset Management

The results of statistical testing confirm that the asset valuation variable has a positive and significant partial effect on optimizing asset management ($t_{\text{count}} = 4.905 > t_{\text{table}} = 1.990$ with a sig value < 0.001 . This variable contributes the most dominant (highest) influence compared to other variables, which is indicated by the coefficient $B = 0.485$ and standardized beta = 0.486. These results indicate that the certainty of estimating economic value, calculating the correct depreciation expense, and determining fair value on the balance sheet are the most crucial determinant factors in determining policies for the utilization, maintenance, transfer, or destruction of assets that are severely damaged or idle.

4) Simultaneous Effects (Together)

Collectively, the variables of asset inventory, asset supervision and control, and asset assessment are proven to have a positive and significant effect on the optimization of regional asset management at the Semarang Regency Education, Culture, Youth and Sports Office ($F_{\text{hitung}} = 81.484 > F_{\text{tabel}} = 3.109$ with a sig value < 0.001 . These three variables are collectively able to explain the variation in changes in asset management optimization by 75.1% ($R^2 = 0.751$), while the remaining 24.9% is influenced by other factors outside this research model.

5. References

Journals:

- Antoh, A. E. (2017). Pengaruh Manajemen Aset Dalam Optimalisasi Aset Tetap (Tanah dan Bangunan) Pemerintah Daerah (Studi di Kabupaten Paniai). *Jumabis*, 1(2), 259827.
- Ardiani, S. (2020). Pengaruh manajemen aset terhadap optimalisasi pemanfaatan aset tetap pemerintah kota Palembang. *Jurnal Riset Terapan Akuntansi*, 4(1), 20-31.
- Brous, P., Janssen, M., & Herder, P. (2019). Internet of Things adoption for reconfiguring decision-making processes in asset management. *Business Process Management Journal*, 25(3), 495-511.
- Casula, M., Rangarajan, N., & Shields, P. (2020). The potential of working hypotheses for deductive exploratory research. *Quality & quantity*, 55(5), 1703.
- Contrafatto, M. (2014). Stewardship theory: Approaches and perspectives. In *Accountability and social accounting for social and non-profit organizations* (Vol. 17, pp. 177-196). Emerald Group Publishing Limited.
- Coram, P., Ferguson, C., & Moroney, R. (2008). Internal audit, alternative internal audit structures and the level of misappropriation of assets fraud. *Accounting & Finance*, 48(4), 543-559.
- Corrado, C., Haskel, J., Iommi, M., & Jona Lasinio, C. S. (2022). Measuring data as an asset: Framework, methods and preliminary estimates. *OECD Economics Department Working Papers*, 1731.
- Dabamona, J., & Dianawati, W. (2025). Impact of Asset Inventory on Asset Optimization, Legal Audit as a Mediation Variable in Regional Government of Papua Province. *Journal of Cultural Analysis and Social Change*, 1994-2005.
- Dent, P. (1997). Managing public sector property assets: the valuation issues. *Property management*, 15(4), 226-233.
- Dewi, N., Azam, S., & Yusoff, S. O. U. T. H. (2019). Factors influencing the information quality of local government financial statement and financial accountability. *Management Science Letters*, 9(9), 1373-1384.
- Donaldson, L., & Davis, J. H. (1991). Stewardship theory or agency theory: CEO governance and shareholder returns. *Australian Journal of management*, 16(1), 49-64.
- Gross, C., & Perotti, P. (2017). Output-based measurement of accounting comparability: A survey of empirical proxies. *Journal of Accounting Literature*, 39(1), 1-22.
- Hafidz, M., Zakaria, A., & Sasmi, A. A. (2025). Evaluation of Regional Asset Management to Enhance the Effectiveness of Regional Asset Management (Case Study at the Regional

- Finance and Asset Agency of Indramayu Regency). *International Journal of Current Economics & Business Ventures*, 5(2).
- Hipui, S., & Liestiawati, F. I. D. (2025). Factors Influencing the Optimization of Asset Management and Reporting at the Regional Financial and Asset Management Agency of Mahakam Ulu Regency. *Journal of Law, Politic and Humanities*, 5(3), 1882-1893.
- Iluore, O. E., Mamudu Onose, A., & Emetere, M. (2020). Development of asset management model using real-time equipment monitoring (RTEM): case study of an industrial company. *Cogent Business & Management*, 7(1), 1763649.
- Jamalulael, M. (2024). Improving Economic Efficiency Through Asset Management of Information Technology Asset Inventory at PT. Chandra Asri. *Eduvest-Journal of Universal Studies*, 4(12), 11543-11559.
- Kokogho, E., Odio, P. E., Ogunsola, O. Y., & Nwaozomudoh, M. O. (2024). Transforming public sector accountability: The critical role of integrated financial and inventory management systems in ensuring transparency and efficiency. *International Journal of Management and Organizational Research*, 3(6), 84-107.
- Komala, M. R., Kusuma, I. C., & Didi, D. (2024). Analisis Penerapan Aset Tetap Berdasarkan Pernyataan Standar Akuntansi Pemerintah (PSAP) NO. 07. *Jurnal Akunida*, 10(1), 59-67.
- Kristanti, D., & Hidayati, N. (2024). Pengaruh Monitoring Centre For Prevention Dan Inventarisasi Aset Terhadap Efektivitas Pemanfaatan Aset Tetap Pada Pemerintah Kabupaten Kediri. *Otonomi*, 24(1), 153-161.
- Kusnindar, I., & Ahmar, N. (2025). Optimizing Asset Utilization is a Mediating Variable in the Influence of Information Systems, Competence, and Internal Control. *Jurnal Akuntansi dan Perpajakan*, 11(2), 188-204.
- Listiani, L., & Agustin, H. (2022). Pengaruh inventarisasi, kompetensi aparatur, dan pengendalian internal terhadap optimalisasi pengelolaan barang milik daerah. *Jurnal Eksplorasi Akuntansi*, 4(4), 861-882.
- Lubis, N., Lubis, N. K., Syardiansah, S., & Girma, A. G. (2024). The Influence of Public Asset Management Effectiveness, Digitalization and Transparency on Fiscal Sustainability: An International Literature Review. *Journal of Management and Business Innovations*, 6(02), 50-64.
- Lukens, S., Naik, M., Saetia, K., & Hu, X. (2019, September). Best practices framework for improving maintenance data quality to enable asset performance analytics. In *Annual conference of the phm society* (Vol. 11, No. 1).

- Lumingkewas, H. S., Saerang, D. P. E., & Datu, C. (2025). Analisis prosedur inventarisasi Barang Milik Daerah (BMD) di Inspektorat Daerah Provinsi Sulawesi Utara. *Riset Akuntansi dan Portofolio Investasi*, 3(1), 316-324.
- Maharani, R. A., Utoyo, B., & Sulistio, E. B. (2020). Manajemen Aset Pemerintah Daerah (Studi Tentang Manajemen Aset Kendaraan Dinas Berdasarkan Permendagri Nomor 19 Tahun 2016 pada Biro Perlengkapan Sekretariat Daerah Provinsi Lampung Tahun 2019). *Administrativa: Jurnal Birokrasi, Kebijakan dan Pelayanan Publik*, 2(3), 383-392.
- Mislevy, R. J., Beaton, A. E., Kaplan, B., & Sheehan, K. M. (1992). Estimating population characteristics from sparse matrix samples of item responses. *Journal of Educational Measurement*, 29(2), 133-161.
- Nanang, R., Susilawati, C., & Skitmore, M. (2023). Toward a public sector asset optimization strategy: the case of Indonesia. *Construction Innovation*, 23(5), 1186-1209.
- Noviyati, A. M., & Khoirudin, R. (2023). Analisis Optimalisasi Aset Pemerintah Daerah di Daerah Istimewa Yogyakarta. *Journal of Economics, Assets, and Evaluation*, 1(2), 1-11.
- Nurviani, N., Tan, D., & Situmeang, A. (2025). Assessing Fixed Asset Write-Off Policy Effectiveness in Enhancing Regional Efficiency at Bappeda Riau Islands. *Jurnal Legalitas*, 18(1), 80-93.
- Oghenekohwo, A. G., Anastesia, D. N., & Moses, O. (2019). Effect of asset management efficiency on performance of building and construction companies in Nigeria. *Archives of Business Research*, 7(12), 50-69.
- Olaniran, M. O., & Onakoya, B. O. (2020). Importance of corporate assets' valuation in performance evaluation: A review of literature. *Ilaro Journal of Environmental Research & Development*, 4(1), 119-133.
- Pacini, C. J., Hopwood, W. S., & Sinclair, D. T. (2016). Domestic asset tracing: Identifying, locating and freezing stolen and hidden assets. *Journal of Forensic Accounting Research*, 1(1), A42-A65.
- Pattawe, A., Abdullah, M. I., Karim, F., Kahar, A., Din, M., Zahra, F., ... & Dharma, D. M. A. (2022). Improving regional financial management through administration of regional property and financial reporting on regional assets. *Research Horizon*, 2(1), 283-294.
- Pauweni, S., Karamoy, H., & Gamaliel, H. (2017). Pengaruh Inventarisasi, Legal Audit, Penilaian dan Kondisi Aset terhadap Optimalisasi Pemanfaatan Aset pada Pemerintah Daerah Kabupaten Bone Bolango. *JURNAL RISET AKUNTANSI DAN AUDITING" GOODWILL"*, 8(2).
- Peltier-Rivest, D. (2018). A model for preventing corruption. *Journal of Financial Crime*, 25(2), 545-561.

Perdana, A. A., & Sayoga, A. A. H. E. (2023). Studi Pendekatan 7S Mckinsey Dalam Peningkatan Efektivitas Belanja Modal Pemerintah Kabupaten Semarang. *Media Informasi Penelitian Kabupaten Semarang*, 5(1), 413-426.

Purwanti, L., & Fatmawati, D. S. A. (2020, June). The Meaning Of Regional Assets Inventorying: Perspective Of Asset Administrators. In *23rd Asian Forum of Business Education (AFBE 2019)* (pp. 165-168). Atlantis Press.

Rohmi, P. K. (2025). Peran Sistem Informasi Pemerintahan Daerah (SIPD) Pada Badan Pengelolaan Keuangan Dan Aset Daerah (BPKAD) Kabupaten Jember. *Menulis: Jurnal Penelitian Nusantara*, 1(3), 155-162.

Sari, M. M., Sakdiah, S., Trifana, N., Nuraisyah, J., & Sari, D. K. (2023). Profit management from a legal and accounting perspective. *Review of Management, Accounting, and Business Studies*, 4(1), 27-32.

Books:

Alyami, Z. (2017). *Asset valuation: a performance measure for comprehensive infrastructure asset management*.

Aneta, Y., Lakoro, I., Aneta, A., Akib, H., & Podungge, A. W. (2024). *Smart Strategies for Managing Regional Assets: Best Practices in Increase Local Revenue*. KnE Social Sciences, 103-120.

Damodaran, A. (2012). *Investment valuation: Tools and techniques for determining the value of any asset*. John Wiley & Sons.

Davis, P. M. (2020). Statistics for describing populations. In *Handbook of sampling methods for arthropods in agriculture* (pp. 33-54). CRC Press.

Fernandes, A. A. R., & Akhrani, L. A. (2022). *Rancangan pengukuran variabel: Angket dan kuesioner (pemanfaatan R)*. Universitas Brawijaya Press.

Firmansyah, A. (2024). Transformasi Pengelolaan Aset Daerah: Penguatan Pengendalian Internal dan Integrasi Teknologi untuk Optimalisasi BMD.

Ghozali, I. (2009). *Aplikasi Analisis Multivariate Dengan Program IBM SPSS, Edisi Keempat*. Semarang: Univesitas Diponegoro.

Hasan, I. (2006). Analisis Data Penelitian dengan Statistik, Jakarta: PT. Bumi aksara.

Heaton, J., & Parlikad, A. K. (2019). A conceptual framework for the alignment of infrastructure assets to citizen requirements in smart cities. In *Value Based and Intelligent Asset Management: Mastering the Asset Management Transformation in Industrial Plants and Infrastructures* (pp. 39-63). Cham: Springer International Publishing.

Hughes, D. (2005). *Asset Management in theory and Practice*. New Age International.

Ilham, I. (2024, September). Managing State Assets: Mode, Elimination, Return, and Good Governance Management. In *Elimination, Return, and Good Governance Management (September 29, 2024). 15th-International Conference on Business Studies and Education (ICBE)*.

Sekaran, U., & Bougie, R. (2017). *Metode penelitian untuk bisnis: Pendekatan pengembangan-keahlian*, edisi 6 buku 1.

Shapiro, E., Mackmin, D., & Sams, G. (2019). *Modern methods of valuation*. Estates Gazette.