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ASSET GOVERNANCE STRATEGY, ASSET UTILIZATION OPTIMIZATION, AND PNBP ENHANCEMENT IN PTN-BLU

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ABSTRACT

The main objective of this study is to examine the effect of asset governance strategy on asset utilization optimization and non-tax state revenue (PNBP) in Public Service Agency State Universities (PTN BLU), with supervision and control as a mediating variable. Asset governance strategy in this study consists of three main dimensions: asset inventory, legal audit, and asset valuation. A causal quantitative approach was adopted using Structural Equation Modeling (SEM) through the LISREL program. The study involved 275 respondents from 55 PTN BLU. The findings indicate that asset inventory, legal audit, and asset valuation significantly affect supervision and control (t-values > 3.7). Asset inventory has a direct effect on asset utilization optimization (t = 10.13), while legal audit and valuation influence it indirectly through supervision. This confirms that supervision and control serve as an important mediating mechanism in strengthening the relationship between asset governance strategy and asset utilization optimization. Supervision has a significant direct effect on optimization (t = 4.99), and optimization significantly drives PNBP (t = 7.92). The model demonstrated good fit indices (CFI = 0.97; RMSEA = 0.065). These results underscore the importance of an integrated control system to enhance asset efficiency and non-tax revenue contribution in higher education governance.

1. INTRODUCTION

Asset management plays a strategic role in realizing good university governance, particularly for Public Service Agency State Universities (PTN BLU). As higher education institutions granted financial management flexibility, PTN BLUs are required to optimize their assets to support institutional operations, enhance academic services, and contribute to non-tax state revenue (PNBP). University assets have strategic value because they support institutional autonomy, expand service capacity, and create potential revenue sources when managed productively. In the PTN BLU context, assets are not only administrative objects, but also institutional resources that can strengthen academic services, research facilities, public service delivery, and financial sustainability.

Despite various efforts, the management of state assets still faces significant challenges, particularly in administrative compliance, asset maintenance, and the administration of State-Owned Goods (BMN). Many university assets remain underutilized due to weak asset governance, incomplete asset data, unclear ownership status, limited valuation accuracy, and insufficient supervision. These conditions may reduce asset productivity and limit the contribution of BMN utilization to PNBP optimization. The complexity of these issues is reflected in the disclaimer opinion issued by the Audit Board of Indonesia (BPK) on the central government's financial statements, in which the management of BMN remains a key concern. In accordance with the Ministry of Finance Regulation PMK Nomor 181/PMK.05/2016, the administration of BMN must be carried out through bookkeeping, inventory, and reporting processes that emphasize accountability and efficiency.

The four main elements of asset management—asset inventory, legal audit, asset valuation, and supervision and control—serve as the foundation for establishing effective and efficient asset governance. Modern asset management has evolved from a static orientation to a dynamic and strategic one (Edwin Umbora et al., 2018), with supervision being a critical component in the asset life cycle. Asset inventory provides accurate information on asset existence, condition, and distribution. Legal audit strengthens legal certainty over ownership and utilization status. Asset valuation supports rational decision-making by providing reliable information on asset value. Meanwhile, supervision and control ensure that asset management activities comply with regulations, institutional objectives, and principles of accountability.

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The optimization of BMN utilization presents both complex opportunities and challenges, as it involves legal compliance, engagement with investors, and the integration of good governance principles. Berdasarkan PMK Nomor 129/PMK.05/2020 underscores that PTN BLUs must implement productive and efficient financial and asset management practices to support the achievement of educational goals and societal welfare. This regulation reinforces the need for PTN BLUs to transform asset management into a strategic governance instrument that supports institutional independence and strengthens revenue generation through PNBP.

Furthermore, the implementation of BMN utilization as stipulated in Government Regulation No. 28 of 2020 provides a legal framework for activities such as leasing, usage agreements, joint utilization, and infrastructure provision partnerships. In this context, orderly and strategic asset management can enhance efficiency and add value to government financial statements (PP Nomor 28 Tahun 2020). However, the potential of these utilization schemes cannot be fully realized without accurate asset data, clear legal status, reliable valuation, and strong supervision and control mechanisms. Weaknesses in these aspects may cause assets to remain idle, poorly maintained, or unable to generate optimal financial value for PTN BLUs.

Previous studies have shown varying findings regarding the influence of inventory, legal audit, and asset valuation on the optimization of asset utilization. Some research indicates no significant partial effect, while others demonstrate a significant positive influence (Edwin Umbora et al., 2018). This inconsistency shows that the relationship between asset governance strategy and asset utilization optimization is not always direct. It may depend on the effectiveness of supervision and control as an internal governance mechanism. However, limited studies have specifically examined supervision and control as a mediating variable between asset governance strategy, which includes asset inventory, legal audit, and asset valuation, and the optimization of asset utilization in PTN BLU. This gap is important because supervision and control may explain how asset governance practices can be translated into more productive and accountable asset utilization.

This study focuses on 55 PTN BLUs under the Ministry of Education, Culture, Research, and Technology, employing Structural Equation Modeling (SEM) analysis using the LISREL software. The main objective of this study is to examine the effect of asset governance strategy on asset utilization optimization and PNBP, with supervision and control as a mediating variable. The expected outcome of this study is a contribution to the development of an effective asset governance model and the promotion of PNBP optimization through the mediating role of asset supervision and control.

The Problem Statement

The problem formulation in this study focuses on the relationships among asset inventory, legal audit, asset valuation, supervision and control, optimization of asset utilization, and non-tax state revenue (PNBP) in Public Service Agency State Universities (PTN BLU). Specifically, this study examines how asset inventory, legal audit, and asset valuation affect supervision and control in PTN BLU. It also analyzes whether asset inventory, legal audit, and asset valuation influence the optimization of asset utilization. In addition, this study investigates the effect of supervision and control on the optimization of asset utilization, as well as the effect of asset utilization optimization on PNBP. Furthermore, this study explores the mediating role of supervision and control in the relationship between asset inventory, legal audit, and asset valuation with the optimization of asset utilization in PTN BLU.

2. METHODS

Research Design

A causal quantitative approach is employed to analyze the relationships among asset management governance strategy variables and the optimization of asset utilization as well as PNBP, with supervision and control as the mediating variable. This method aims to explain both direct and indirect effects among variables using Structural Equation Modeling (SEM), processed with LISREL software.

Population and Sample

The study population consists of all Public Service Agency State Universities (PTN-BLU) status under the Ministry of Education, Culture, Research, and Technology, totaling 55 institutions. Sampling was conducted using purposive sampling based on criteria that include institutions with an asset management unit and documented financial reports.

The respondent criteria were as follows: respondents had to work in a PTN-BLU institution, have direct or indirect involvement in asset management or financial administration, understand the processes

of asset inventory, legal audit, asset valuation, supervision and control, or PNBP management, and have access to institutional asset or financial information relevant to their duties.

The total number of respondents is 275 individuals, comprising five functional groups from each PTN-BLU: asset operators, financial operators, general affairs coordinators, financial managers, and internal auditors

Research Variables

a) Independent Variables: Asset Inventory (X1), Legal Audit (X2), Asset Valuation (X3)
b) Mediating Variable: Supervision and Control (M)
c) Dependent Variables: Asset Optimization (Y1), Non-Tax State Revenue (Y2)

Asset inventory refers to the process of recording, identifying, classifying, and reporting institutional assets. Legal audit refers to the assessment of legal status, ownership documents, compliance, and legal risks related to assets. Asset valuation refers to the process of determining asset value based on accuracy, periodic updates, and the use of valuation results in decision-making. Supervision and control refer to monitoring, evaluation, internal control, and follow-up mechanisms in asset management. Asset utilization optimization refers to the efficient, appropriate, and productive use of institutional assets. PNBP refers to revenue generated from asset utilization and other institutional sources that contribute to state revenue.

Operational Definition of Variables

Each variable in this study is measured using structured indicators developed from theoretical reviews and previous studies. The independent variables include asset inventory, legal audit, and asset valuation, each measured by data completeness, legal compliance, and accuracy of asset valuation. The mediating variable, supervision and control, reflects the effectiveness of monitoring and follow-up of irregularities. The dependent variables include asset optimization, measured through efficiency and appropriateness in the use of PNBP funds, evaluated based on source, management, and contribution to state revenue. Instruments are structured using Likert-scale questionnaires and tested for validity and reliability through Confirmatory Factor Analysis (CFA) using SEM-LISREL software. Each questionnaire item was measured using a five-point Likert scale, ranging from 1 to 5. The scale consisted of 1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree, and 5 = strongly agree. This scale was used to measure respondents' perceptions of asset governance strategy, supervision and control, asset utilization optimization, and PNBP management in PTN-BLU.

Data Collection Techniques

a) Primary Data: Online questionnaires via Google Form
b) Secondary Data: Biannual and annual reports on state-owned assets (BMN) and internal audit documents.

Data collection was carried out by distributing online questionnaires through Google Form to respondents in 55 PTN-BLU institutions. The questionnaire was distributed to respondents who met the predetermined criteria. Before filling out the questionnaire, respondents were informed about the purpose of the study and the confidentiality of their responses. The data collection process focused on respondents who had relevant duties in asset management, financial management, general administration, and internal audit. In addition to primary data, this study also used secondary data from biannual and annual reports on State-Owned Goods (BMN), financial reports, and internal audit documents to support the analysis.

Data Analysis Techniques

Data analysis is conducted using SEM-LISREL software through the following steps:

a) Validity and reliability testing (LF ≥ 0.50; CR ≥ 0.70; AVE ≥ 0.50).
b) Univariate and multivariate normality testing (P value > 0.05).
c) Model fit testing or Goodness of Fit using indices such as Chi-square, GFI, AGFI, CFI, NNFI, NFI, IFI, RMSEA, and RMR.
d) Hypothesis testing with t-value ≥ 1.96 and $p < 0.05$.

The model is considered fit if all Goodness-of-Fit indices meet the acceptable thresholds. The interpretation of results is conducted to assess the managerial implications and the effectiveness of asset management strategies within PTN-BLU institutions.

Table 1. Validity and Reliability Test Results

Variable	Loading Factor (LF)	Construct Reliability (CR)	Variance Extracted (AVE)
Asset Inventory (X1)	0.725 - 0.864	0.885	0.582
Legal Audit (X2)	0.741 - 0.890	0.892	0.614
Asset Valuation (X3)	0.710 - 0.835	0.867	0.553
Supervision and Control (M)	0.755 - 0.878	0.904	0.638
Asset Utilization Optimization (Y1)	0.732 - 0.871	0.897	0.607
Non-Tax State Revenue (Y2)	0.768 - 0.895	0.915	0.662

Based on the validity and reliability test results, all indicators had loading factor values above 0.50. Each construct also had CR values above 0.70 and AVE values above 0.50. These results indicate that all indicators were valid and reliable in measuring their respective constructs and could be used in the structural model.

3. RESULTS AND DISCUSSIONS

Results

Construct validity was tested using Confirmatory Factor Analysis (CFA). All indicators exhibited loading factor values of ≥ 0.5, indicating adequate validity. The reliability test also showed that all constructs had Construct Reliability (CR) values of ≥ 0.70 and Variance Extracted (AVE) values of ≥ 0.50, indicating internal consistency and sufficient variance explained by the constructs. Therefore, all indicators are deemed suitable for use in the structural model testing.

Figure 1 displays the SEM-LISREL model and the results of the validity test, with all loading factor values above 0.5.

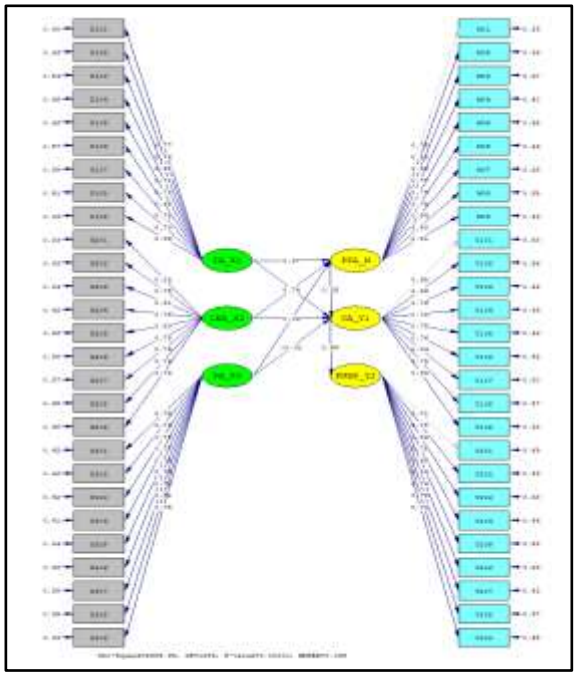

Figure 1. SEM-LISREL Model Illustration

The results of the univariate normality test indicated that most indicators had p-values below 0.05, which statistically implies a non-normal data distribution. The multivariate normality test also yielded p-values below 0.05. However, this condition does not pose a significant constraint, as the study utilized a large sample size of 275 respondents, thus still meeting the assumption of normality based on the Central

Limit Theorem. This theorem states that the sampling distribution of the mean approach normality even if the original population data are not normally distributed, as long as the sample size is sufficiently large.

The Goodness of Fit test for the structural model yielded the following values: CFI = 0.97, TLI = 0.97, NFI = 0.94, RMSEA = 0.065, and RMR = 0.046. Although the Chi-Square value indicated a lack of fit ($p < 0.05$), most model fit indices fall within acceptable thresholds. Therefore, the model is considered to have an adequate level of fit.

The hypothesis testing in this study was based on the analysis of causal relationships among the constructs involved in the research model, as presented in Table 2.

Table 2. Hypothesis Testing Results of the Structural Model

No	Variable	Koef.	t-value	Description
1	X1 → M	0.27	3.9	Significant
2	X2 → M	0.29	4.54	Significant
3	X3 → M	0.24	3.79	Significant
4	X1 → Y1	0.74	10.13	Significant
5	X2 → Y1	0.03	0.68	Not Significant
6	X3 → Y1	-0.015	-0.34	Not Significant
7	M → Y1	0.25	4.99	Significant
8	Y1 → Y2	0.59	7.92	Significant
9	X1 → M → Y1	0.07	3.36	Significant Mediation
10	X2 → M → Y1	0.07	3.37	Significant
11	X3 → M → Y1	0.07	3	Significant Mediation

Based on the data in Table 1, the hypothesis testing results can be explained as follows:

a) There is a significant effect of Asset Inventory on Supervision and Control in Public Service Agency State Universities (PTN-BLU), as the t-value > 1.96 (3.90 > 1.96). The positive coefficient indicates a positive influence.
b) There is a significant effect of Legal Audit on Supervision and Control in PTN-BLU, as the t-value > 1.96 (4.54 > 1.96). The positive coefficient indicates a positive influence.
c) There is a significant effect of Asset Valuation on Supervision and Control in PTN-BLU, as the t-value > 1.96 (3.79 > 1.96). The positive coefficient indicates a positive influence.
d) There is a significant effect of Asset Inventory on Asset Utilization Optimization in PTN-BLU, as the t-value > 1.96 (10.13 > 1.96). The positive coefficient indicates a positive influence.
e) There is no significant effect of Legal Audit on Asset Utilization Optimization in PTN-BLU, as the t-value < 1.96 (0.68 < 1.96).
f) There is no significant effect of Asset Valuation on Asset Utilization Optimization in PTN-BLU, as the t-value < 1.96 (-0.34 < 1.96).
g) There is a significant effect of Supervision and Control on Asset Utilization Optimization in PTN-BLU, as the t-value > 1.96 (4.99 > 1.96). The positive coefficient indicates a positive influence.
h) There is a significant effect of Asset Utilization Optimization on Non-Tax State Revenue (PNBP) in PTN-BLU, as the t-value > 1.96 (7.92 > 1.96). The positive coefficient indicates a positive influence.
i) There is a significant effect of Asset Inventory, mediated by Supervision and Control, on Asset Utilization Optimization in PTN-BLU, as the t-value > 1.96 (3.36 > 1.96). The positive coefficient indicates a positive influence.
j) There is a significant effect of Legal Audit, mediated by Supervision and Control, on Asset Utilization Optimization in PTN-BLU, as the t-value > 1.96 (3.37 > 1.96). The positive coefficient indicates a positive influence.
k) There is a significant effect of Asset Valuation, mediated by Supervision and Control, on Asset Utilization Optimization in PTN-BLU, as the t-value > 1.96 (3.00 > 1.96). The positive coefficient indicates a positive influence.

Discussion

Data analysis indicates that asset inventory has a positive and significant effect on the effectiveness of supervision and control in Public Service Agency State Universities (PTN BLU). This result is supported by a t-value of 3.90, which exceeds the critical threshold of 1.96, and a positive regression coefficient

showing a consistent direction of influence. Therefore, the first hypothesis stating that "asset inventory has a positive and significant effect on supervision and control in PTN BLU" is empirically supported. This finding aligns with Antoh (2017), Arifin et al. (2023) Doli D. Siregar & Achmad Herry (2004), Sukmini Hartati et al. (2019), and Yasir et al. (2020) who explain that asset inventory is a systematic process of recording, documenting, and identifying assets. These results indicate that a well-managed asset inventory process can strengthen supervision and control functions, particularly in asset safeguarding, asset protection, performance improvement, and asset audit implementation.

The research findings also show that legal audit has a positive and significant effect on supervision and control in PTN BLU. This is evidenced by a t-value greater than 1.96 (4.54 > 1.96), with a positive coefficient indicating a positive direction of influence. Thus, the second hypothesis stating that "legal audit has a positive and significant effect on supervision and control in PTN BLU" is empirically proven and accepted. This result is consistent with Cris Kuntadi et al. (2022), Doli D. Siregar & Achmad Herry (2004), Hans Victor Sitepu et al. (2024), and Wahyu (2021). These findings show that asset legal audit contributes to comprehensive supervision and control by improving the accuracy of information regarding asset ownership status, minimizing the risk of deviation, and increasing accountability.

Furthermore, asset valuation has a positive and significant effect on supervision and control in PTN BLU. This finding is supported by a t-value greater than 1.96 (3.79 > 1.96), while the positive coefficient indicates a positive effect. Therefore, the third hypothesis stating that "asset valuation has a positive and significant effect on supervision and control in PTN BLU" is empirically validated. This finding is in line with Cris Kuntadi et al. (2022), Doli D. Siregar & Achmad Herry (2004), Hidayat et al. (2021), and Wahyu (2021). Proper and periodic asset valuation enhances transparency and accountability in asset management. With adequate supervision, asset valuation outcomes can also strengthen trust in optimizing asset utilization and ensure that assets are used efficiently and effectively.

The data analysis further shows that asset inventory has a significant impact on the optimization of asset utilization in PTN BLU. This is supported by a t-value exceeding the critical threshold of 1.96 (10.13 > 1.96), with a positive regression coefficient indicating a consistent directional relationship. Hence, the fourth hypothesis stating that asset inventory has a positive and significant influence on the optimization of asset utilization in PTN BLU is empirically accepted. This result is in line with Antoh (2017), Arif Wicaksana et al. (2021), Doli D. Siregar & Achmad Herry (2004), and Yulina et al. (2021). In general, a systematic and regular asset inventory process provides accurate information regarding asset conditions and availability, thereby facilitating optimal asset management and utilization.

In contrast, legal audit does not have a significant effect on the optimization of asset utilization in PTN BLU. This is indicated by a t-value of 0.68, which is below the significance threshold of 1.96. Thus, the fifth hypothesis stating that legal audit has a positive and significant relationship with asset utilization optimization in PTN BLU is not empirically supported and is rejected. This result differs from Cris Kuntadi et al. (2022), Doli D. Siregar & Achmad Herry (2004), Hans Victor Sitepu et al. (2024), and Wahyu (2021), who suggested that a comprehensive legal audit enhances trust and accountability in asset management and supports optimal asset utilization. Although legal audits may help identify and resolve issues related to asset ownership and use, this relationship was not statistically proven in the current study.

The analysis also reveals that asset valuation does not significantly affect asset utilization optimization in PTN BLU. This is indicated by a t-value less than 1.96 (-0.34 < 1.96). Therefore, the sixth hypothesis stating that "asset valuation has a positive and significant influence on asset utilization optimization in PTN BLU" is not supported and is rejected. This finding contradicts prior studies by Antoh (2017), Cris Kuntadi et al. (2022), Doli D. Siregar & Achmad Herry (2004), Hidayat et al. (2021), and Wahyu (2021), which emphasized that proper and periodic asset valuation provides accurate information on asset value and condition, enabling better management and optimal utilization. Overall, although the literature suggests a potential significant influence of asset valuation on utilization optimization, this effect was not confirmed in this study, either partially or simultaneously.

This finding indicates that legal audit and asset valuation require strong supervision and control mechanisms before they can contribute to asset utilization optimization. Legal audit mainly provides legal

certainty regarding ownership status, asset use rights, and potential juridical risks. However, legal certainty does not automatically improve asset productivity if the audit results are not followed by monitoring, corrective action, and managerial decision-making. In public asset management, assets must be managed not only as administrative records, but also as public resources that need governance mechanisms to create economic and service value (Kaganova & Amoils, 2020). Therefore, the insignificant direct effect of legal audit on asset utilization optimization may occur because legal audit functions more as a compliance instrument. Its contribution becomes stronger when supervision and control ensure that audit findings are translated into utilization policies, cooperation schemes, leasing decisions, or other productive asset-use strategies.

The same logic applies to asset valuation. Asset valuation provides information about asset value, condition, and economic potential. However, valuation data will not directly optimize asset utilization if the institution does not use the information in planning, budgeting, and utilization decisions. In a multi-asset system, asset management requires coordination among technical, financial, and managerial decisions because assets differ in function, risk, value, and utilization potential (Petchrompo & Parlikad, 2019). This means that valuation results need supervision mechanisms to ensure that asset value information supports priority setting, revenue projection, and efficient utilization. Without supervision and control, valuation may remain a technical assessment rather than a strategic input for improving asset productivity and PNBP contribution.

From the perspective of governance and accountability, supervision and control serve as mechanisms that connect asset governance practices with institutional performance. Accountability requires public institutions to explain and justify how public resources are managed, used, and converted into public value (Bovens, 2007). In PTN BLU, this is important because financial flexibility must be balanced with transparent and accountable asset management. Supervision and control help ensure that legal audit and valuation results are not only documented, but also used responsibly in decision-making. This supports the public financial management view that accounting, control, and reporting systems should strengthen public value, service delivery, and institutional accountability (Steccolini, 2018).

These findings also support public asset management theory, which emphasizes that asset optimization depends on the integration of asset information, legal certainty, valuation accuracy, institutional control, and utilization strategy. Hasbi Hanis et al. (2011) show that public asset management requires a structured framework to address governance challenges in Indonesian public institutions. Lu (2017) also emphasizes that public capital asset management needs a holistic perspective because public assets are linked to planning, service delivery, accountability, and financial performance. Therefore, the significant indirect effects of legal audit and asset valuation through supervision and control indicate that supervision acts as a mediating governance mechanism. It transforms legal and valuation information into practical asset utilization decisions that support efficiency, accountability, and PNBP enhancement in PTN BLU.

According to the data analysis, supervision and control have a positive and significant effect on asset utilization optimization in PTN BLU. This result is supported by a t-value greater than 1.96 (4.99 > 1.96), with a positive coefficient indicating a positive effect. Therefore, the seventh hypothesis stating that supervision and control have a positive and significant effect on asset utilization optimization in PTN BLU is accepted. This finding aligns Arifin et al. (2023), Doli D. Siregar & Achmad Herry (2004), and Mety Andriani Baitanu & Ni Luh Putu Wiagustini (2021), and PMK Nomor 207/PMK.06/2021, which indicate that effective supervision and control enhance accountability and transparency in asset management, thereby facilitating optimal asset utilization. Effective, consistent, and systematic supervision and control also produce accurate information regarding asset condition and presence, which ultimately strengthens public trust in accountable asset management.

The analysis further indicates that asset utilization optimization has a positive and significant effect on Non-Tax State Revenue (PNBP) in PTN BLU. This is shown by a t-value greater than 1.96 (7.92 > 1.96), with a positive coefficient indicating a positive effect. Therefore, the eighth hypothesis stating that "there is a positive and significant influence of asset utilization optimization on PNBP in PTN BLU" is empirically proven and accepted. This finding is consistent with Arif Wicaksana et al. (2021), Doli D. Siregar & Achmad Herry (2004), and Yulina et al. (2021), and PMK Nomor 207/PMK.06/2021, which show that optimizing

asset utilization can increase non-tax revenue sources. These results highlight a positive and significant relationship between asset utilization optimization and PNBP performance, especially when supported by strict supervision.

The mediation analysis shows that asset inventory, mediated by supervision and control, has a significant effect on asset utilization optimization in PTN BLU. This finding is based on the indirect effect test, which shows a t-value greater than 1.96 (3.36 > 1.96), with a positive coefficient. Therefore, the ninth hypothesis stating that "there is a positive and significant effect of asset inventory mediated by supervision and control on asset utilization optimization in PTN BLU" is empirically proven and accepted. This result supports Cris Kuntadi et al. (2022), Doli D. Siregar & Achmad Herry (2004), Hans Victor Sitepu et al. (2024), and Wahyu (2021), who demonstrate that asset inventory, when supported by effective supervision and control, provides accurate information regarding the existence and condition of assets, thereby enabling optimal and efficient asset management. Thus, a positive and significant relationship is confirmed between asset inventory and asset utilization optimization through the mediation of supervision and control.

The analysis also confirms that legal audit significantly influences asset utilization optimization in PTN BLU through the mediation of supervision and control. This result is supported by an indirect effect test with a t-value of 3.37, exceeding the critical threshold of 1.96, and a positive coefficient indicating a positive relationship between the variables. Hence, the tenth hypothesis stating that "there is a positive and significant influence of legal audit on asset utilization optimization through the mediation of supervision and control in PTN BLU" is empirically supported and accepted. This finding aligns with Cris Kuntadi et al. (2022), Doli D. Siregar & Achmad Herry (2004), Hidayat et al. (2021), and Wahyu (2021), and PMK Nomor 207/PMK.06/2021, which show that legal audit, when supported by strong supervision and control, provides accurate information on asset condition and presence, allowing for optimal and efficient asset management. Overall, the analysis confirms a positive and significant relationship between legal audit and asset utilization optimization through supervision and control.

Finally, asset valuation mediated by supervision and control has a significant effect on asset utilization optimization in PTN BLU. This is based on the indirect effect test, which shows a t-value greater than 1.96 (3.00 > 1.96), with a positive coefficient. Thus, the eleventh hypothesis stating that "there is a positive and significant effect of asset valuation mediated by supervision and control on asset utilization optimization in PTN BLU" is empirically proven and accepted. This finding is supported by Doli D. Siregar & Achmad Herry (2004), Saputra et al. (2019), and Selang (2023), who reveal that asset valuation, supported by effective supervision and control, provides accurate data on asset presence and condition, allowing for optimal and efficient asset management. In conclusion, the data confirm a positive and significant relationship between asset valuation and asset utilization optimization through the mediation of supervision and control in PTN BLU.

4. CONCLUSION

Based on the analysis, this study concludes that asset governance strategy contributes to asset utilization optimization and Non-Tax State Revenue (PNBP) in Public Service Agency State Universities (PTN-BLU). Asset inventory, legal audit, and asset valuation have a significant positive effect on supervision and control. However, only asset inventory has a direct significant effect on asset utilization optimization, while legal audit and asset valuation influence optimization indirectly through supervision and control.

The main contribution of this study is the finding that asset optimization in PTN-BLU is not only determined by technical asset management activities, but also by the strength of supervision and control systems. Supervision and control act as an important mediating mechanism that connects asset governance practices with asset utilization optimization. In addition, asset utilization optimization has a significant positive effect on PNBP, showing that better asset management can support revenue generation in PTN-BLU.

Practically, PTN-BLU leaders are advised to improve asset inventory systems, strengthen legal audit mechanisms, update asset valuation regularly, develop integrated asset databases, and ensure transparent asset utilization procedures. This study is limited by its reliance on survey data and its focus only on PTN-

BLU institutions. Future research may expand the scope to other public institutions or include objective financial and asset performance data.

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