



Optimizing State Asset Management as a Solution to Creating Reliable Sources of State Revenue

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Abstract. Suboptimal management of state assets, such as the large number of idle assets, is still one of the major challenges in efforts to increase state revenue in Indonesia. This study aims to analyze the effect of the Number of Idle Assets, Technological Progress, and Adequate Regulations on Increasing State Revenue. The research method used is a quantitative approach with multiple linear regression analysis. The research sample consisted of 80 respondents who worked in various government agencies in several regions in Indonesia, selected using the Solvin formula. The results of the study showed that simultaneously the three independent variables had a significant effect on increasing state revenue, but partially only the Technological Progress variable had a significant effect. In conclusion, optimizing state asset management through the application of more advanced technology has the potential to significantly increase state revenue. Meanwhile, although the Number of Idle Assets and Adequate Regulations have not provided a significant effect partially, both are still important to support more efficient management.

Keywords: Idle Assets, Technology, Regulations, State Revenue.

1 Introduction

State asset management is one of the crucial aspects of good governance. In various countries, assets owned by the government often include natural resources, property, infrastructure, and other facilities that have the potential to become sources of state revenue. However, the problem often faced by developing countries, including Indonesia, is the less than optimal management of these assets [1]. This condition has an impact on the state's inability to maximize the potential of assets to increase state revenue. Assets that are not managed properly tend to become a burden on the state, especially if left idle or not utilized according to their potential.

One of the biggest challenges in managing state assets is the number of unused or idle assets. These idle assets are often a problem in many countries, including Indonesia [2]. For example, property assets owned by the government or BUMN that are not used can be a burden on the state budget because they still require maintenance and care costs without contributing to state revenues. According to data

from the Ministry of Finance of the Republic of Indonesia, until the last few years, there are still a large number of state assets that have not been optimally utilized, either in the form of land, buildings, or other intangible assets. This reflects the need for strategic steps in optimizing the use of state assets as a more reliable source of state revenue [3].

State asset management in Indonesia faces serious problems with many idle and underutilized assets, such as unused land and buildings, which burden the state budget without making a significant contribution to revenue [4]. Finance Minister Sri Mulyani has highlighted the importance of optimizing these assets, including through the establishment of the State Asset Management Institution (LMAN) which has successfully optimized several assets and generated hundreds of billions of rupiah in revenue. The application of modern technology, such as cloud-based management, is considered important to maximize asset management. However, the integration of this technology still needs to be improved in order to contribute more to state finances amidst increasing infrastructure needs and fiscal challenges [5].

In today's digital era, technology plays an important role in various aspects of life, including asset management. The use of advanced technology in asset management allows the government to monitor, inventory, and analyze asset usage more efficiently [6]. Information technology, such as cloud-based management systems, is able to provide real-time data on asset conditions, market values, and their potential utilization. In Indonesia, the application of technology in state asset management has not been fully integrated [7]. With technological advances, the state can utilize existing resources to optimize asset management, which will ultimately contribute to increasing state revenues.

According to [8]. Adequate regulations are also an important factor in managing state assets. Regulations governing the use of assets must support the creation of efficiency and effectiveness in management. Without a clear and strong legal framework, state asset management is at risk of facing various obstacles, such as legal uncertainty, misuse of assets, or corrupt practices [9]. In Indonesia, although there are various regulations related to state asset management, there are still many aspects that need to be improved. For example, regulations regarding the use of idle assets, transparency in asset management, and government accountability in reporting asset use still need to be improved to encourage optimization of state asset management.

The object of this research is state assets owned by the central and regional governments that have not been optimally utilized, as well as the potential for state revenue that can be obtained from optimizing the management of these assets. With this background, this study aims to analyze how state asset management can be optimized as a solution to increase reliable sources of state revenue. This study will focus on three main variables, namely the number of idle assets, technological progress, and adequate regulations. From the results of this study, it is expected that strategies and policies can be found that can be implemented by the government to maximize the potential of state assets as a source of sustainable income.

This study also has a more specific objective, namely to analyze the relationship between the number of idle assets and the potential for state revenue, to see the impact of technology implementation on the effectiveness of asset management, and to evaluate the role of adequate regulations in supporting the

optimization of state asset management. This study is expected to contribute to the formulation of public policies related to state asset management in Indonesia, as well as to provide practical recommendations for the government in utilizing state assets more effectively. Thus, this study is relevant in the context of the government's efforts to find more reliable sources of state revenue, especially amidst the fiscal challenges faced by developing countries such as Indonesia. Optimizing state asset management is not only important in increasing revenue, but also in creating efficiency, transparency, and accountability in good governance.

2 Literature Review

2.1 Number of Idle Assets

Idle assets, also known as idle assets in asset management literature, refer to assets owned by an entity, such as a country or a company, but not used productively [10]. In this context, these assets can be property, buildings, infrastructure, or other resources that are not used to support the organization's operational activities or strategic objectives. In general, idle assets do not provide economic contribution and are often considered a burden because they still require maintenance and administration costs. This concept emphasizes the importance of utilizing existing resources efficiently to avoid waste and maximize asset potential. Asset management theories support the idea that assets left idle can lead to inefficiency and waste of resources that could be maximized for productive purposes.

Asset management literature also highlights that idle assets can be caused by a variety of factors, including poor planning, lack of long-term needs assessment, or policy changes that lead to delays or cancellations of projects that would have utilized the asset. Economic theory teaches that idle assets are a form of inefficiency because they do not generate added value to the organization or society. Therefore, optimizing idle assets is important in various management models, both in the public and private sectors, to reduce unnecessary expenses and maximize return on investment (ROI) [11]. Good management can be done through strategies such as leasing, selling, or repurposing unused assets to support operational and strategic goals that are more relevant to current needs.

2.2 Technological Advances

Technological advancements have become a key factor in driving efficiency and innovation in various sectors, including asset management, business, and government. In modern management literature, technology is defined as the tools, methods, and processes used to increase productivity and effectiveness. The development of information technology, such as big data, cloud computing, and the Internet of Things (IoT), has changed the way companies and governments manage their resources and assets [12]. These technologies enable real-time data collection, analysis, and monitoring, which in turn helps in faster and more accurate decision making. According to Everett Rogers' diffusion of innovation theory, technology adoption tends to follow a certain pattern, where early adopters play a key role in the spread of

technology until it becomes mainstream, helping organizations achieve competitive advantage and higher operational efficiency.

Technology also facilitates automation and optimization of processes that were previously done manually. For example, cloud-based asset management systems enable organizations to more effectively inventory assets, minimize human error, and reduce operational costs. Blockchain technology, for example, is starting to be applied in asset management to increase transparency and security in asset tracking. On the other hand, Artificial Intelligence (AI) and machine learning also play a role in predictive analytics, helping in forecasting future asset needs and mitigating the risk of system failures [13]. Technology management literature emphasizes that technology integration into management processes not only increases efficiency but is also capable of creating greater added value in the long term.

2.3 Adequate Rules

Adequate rules are one of the main pillars in supporting the successful management of state and organizational assets. In legal and management literature, rules are defined as a series of rules, policies, or regulations applied to regulate and direct behavior or actions in a particular context [14]. Clear and comprehensive rules serve to create an adequate framework to ensure efficiency, accountability, and transparency in asset management. Without proper rules, asset management can become unfocused and vulnerable to abuse, such as corruption or mismanagement. According to the regulatory theory put forward by Stigler, regulation is needed to reduce risks arising from market uncertainty or opportunistic actions, so the implementation of adequate rules is very important in creating justice and preventing inefficiency in asset management [15].

Adequate regulations must also be adaptive to changes in the external environment and technological developments. The legal literature emphasizes the importance of flexibility in regulations to quickly adapt to evolving needs, such as the application of new technologies in asset management. Rigid or outdated regulations can hinder innovation and the effectiveness of asset management, as they do not provide room for adjustment to new conditions. In this context, the dynamic regulation theory, as outlined by Baldwin and Cave in [16], suggests that regulations must be continuously evaluated and updated to remain relevant and support the achievement of organizational or state objectives. Therefore, adequate regulations must not only regulate technical and operational aspects, but also provide a framework that supports the development of technology and more efficient and accountable management practices.

2.4 Increasing State Revenue

Increasing state revenue is one of the main focuses in effective fiscal management [17] associates increasing state revenue with various government efforts to expand the tax base, increase the efficiency of tax collection, and maximize non-tax revenues, such as Non-Tax State Revenue (PNBP). According to fiscal economic theory, increasing state revenue is important to support government spending, including

infrastructure development, provision of public services, and social welfare programs. These efforts often involve tax reform, stricter law enforcement against tax evasion, and optimization of the management of idle state assets. In the view of [18], higher state revenue allows the government to play a bigger role in the economy, especially in conditions of recession or economic slowdown.

State revenue can also be increased through optimal utilization of state assets. Public policy literature emphasizes the importance of efficiently managing state assets, such as land, property, or natural resources, to create sustainable sources of revenue. Good management of these assets can help the state reduce budget deficits and increase fiscal surpluses. For example, states that are able to manage their assets with strategies such as partial privatization, leasing idle assets, or cooperation with the private sector can strengthen their fiscal position [19]. According to public asset management theory, asset optimization will not only increase short-term revenues but also create sustainable economic growth by reducing dependence on taxes as the main source of state revenue.

3 Conceptual Framework

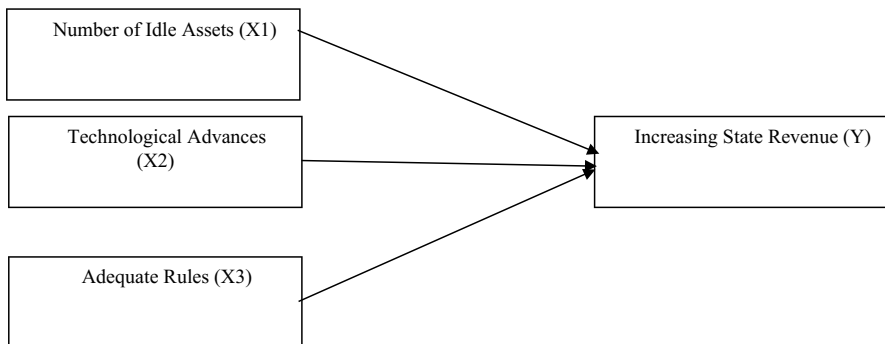


Fig. 1. Conceptual Framework

The framework presented in Figure 1 shows the relationship between three independent variables, namely the number of idle assets, technological progress, and adequate regulations, to the dependent variable, namely increasing state revenues. The number of idle assets (X1) is considered the main problem that causes a decrease in the potential for state revenues. On the other hand, technological progress (X2) functions as a tool that can optimize the management of these assets through a more efficient monitoring and utilization system. Adequate regulations (X3) play an important role in providing a regulatory framework that supports transparent and accountable asset utilization. These three factors together are expected to contribute to increasing state revenues (Y), with more effective and efficient asset optimization.

This model emphasizes the importance of synergy between idle asset management, technology utilization, and strong regulations to achieve the country's fiscal goals.

4 Research Methodology

This study uses a quantitative method with a survey approach to measure the relationship between the variables studied, namely the number of idle assets (X1), technological progress (X2), adequate regulations (X3), and increased state revenue (Y). [20]. Respondents in this study came from several regions in Indonesia that have central and regional government offices, such as Jakarta, Surabaya, and Bandung, which were chosen because these regions have a high concentration of government agencies, both at the ministry and agency levels. The population of this study were employees who work in these government offices who are directly related to the management of state assets. For this study, the sample used was 80 respondents selected using the Solvin formula with a 10% error rate.

The research instrument used in this survey was a questionnaire using a Likert scale with five levels, ranging from strongly disagree to strongly agree, to measure respondents' perceptions of each research variable. Data analysis was carried out using descriptive and inferential statistical techniques, with validity and reliability tests to ensure that the measurement instruments used can provide accurate results [21]. In addition, multiple linear regression analysis was used to determine the significant influence between independent variables (the number of idle assets, technological progress, and adequate regulations) on the dependent variable (increased state revenue). The results of this analysis are expected to provide a clear picture of the contribution of each factor in optimizing state asset management.

5 Results and discussion

5.1 Research Results

Validity and Reliability Test.

Table 1. Validity Test

Variables	Question Items	r Count	Information
Number of Idle Assets (X1)	X1.1	0.833	VALID
	X1.2	0.918	VALID
	X1.3	0.859	VALID
Technological Advancement (X2)	X2.1	0.810	VALID
	X2.2	0.677	VALID
	X2.3	0.828	VALID
Adequate Rules (X3)	X3.1	0.824	VALID
	X3.2	0.911	VALID
	X3.3	0.837	VALID
Increasing State Revenue (Y)	Y1.1	0.879	VALID
	Y1.2	0.885	VALID

Y1.3	0.833	VALID
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Source: SPSS 27 (2024)

Based on the validity test results shown in Table 1, all question items from each research variable are declared valid, because the calculated r value for each question item is greater than the table r value used as a validity reference. For the variable Number of Idle Assets (X1), all items have calculated r values above 0.8, with the highest value at X1.2 (0.918), indicating that these items have very good validity in measuring this variable. The variable Technological Progress (X2) also shows good validity, although item X2.2 has a lower calculated r value than the others (0.677), but still meets the validity criteria. Meanwhile, for the variables Adequate Regulations (X3) and Increasing State Revenue (Y), all question items are declared valid with calculated r values above 0.8. These results indicate that the instrument used in this study has good reliability in measuring the variables studied.

Table 2. Reliability Test

Variables	Cronbach Alpha	Cut Of Value	Information
Number of Idle Assets (X1)	0.839	0.50	Reliable
Technological Advancement (X2)	0.764	0.50	Reliable
Adequate Rules (X3)	0.821	0.50	Reliable
Increasing State Revenue (Y)	0.720	0.50	Reliable

Source: SPSS 27 (2024)

Based on the reliability test results shown in Table 2, all research variables are declared reliable because the Cronbach Alpha value for each variable is greater than the set cut-off value, which is 0.50. The variable Number of Idle Assets (X1) has a Cronbach Alpha value of 0.839, indicating a very high level of reliability, indicating good consistency of the measurement items. Technological Progress (X2) is also reliable with a Cronbach Alpha value of 0.764, which is still in the good category. Furthermore, the variables Adequate Regulation (X3) and Increasing State Revenue (Y) each have values of 0.821 and 0.720, both of which meet the reliability criteria. These results indicate that the instrument used in this study has good internal consistency and can be relied on to measure variables related to the optimization of state asset management.

Classical Assumption Test. The normality test aims to evaluate whether the residual value of the tested data has a normal distribution or not. The methods used include several graphical approaches, such as histograms and normal probability PP Plot graphs. In the histogram graph, a normal data distribution will form a bell curve with data spread symmetrically on both sides. Meanwhile, in the PP Plot graph, data is considered not to meet the normality assumption if the points are spread far from the diagonal line.

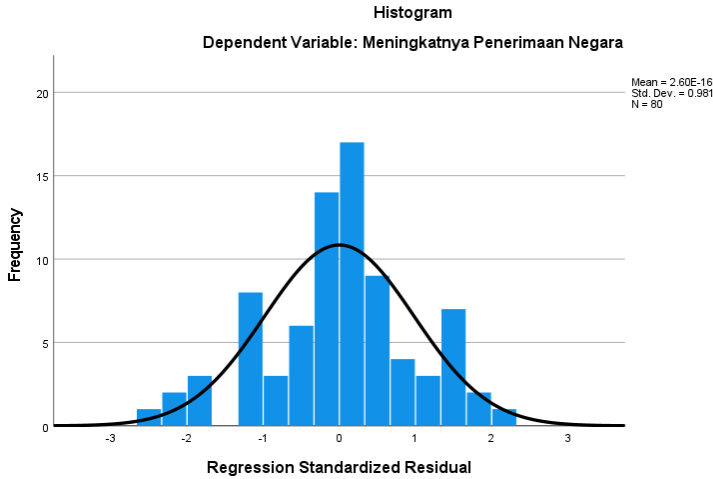


Fig. 2. Histogram Test

Figure 2 shows the results of the normality test using a histogram that visualizes the residual distribution of the dependent variable "Increasing State Revenue." The bell-shaped curve shown in the graph shows that the data distribution is close to normal. The data frequency is distributed symmetrically around the mean (0), with most residual values gathered around the mean and slightly spread towards the two tails of the curve. This shows that the data meets the assumption of normality, which is important for continuing the regression analysis. The standard deviation value of 0.961 also shows that the data is not too far from the center of the distribution, supporting the interpretation that the residuals have a distribution pattern that is close to normal.

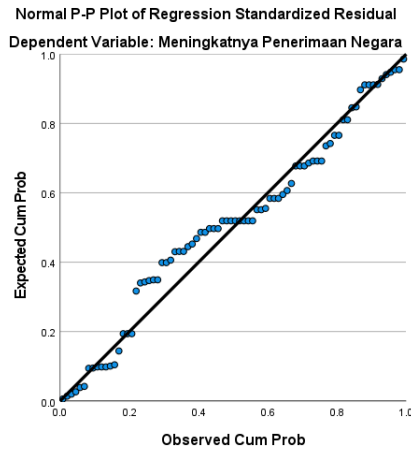


Fig. 3. P-Plots Normality Test

Figure 3 shows the normality test using PP Plot to test the residual distribution of the dependent variable "Increasing State Revenue." In this graph, the residual points are spread around the diagonal line, indicating that the residual data follows a normal distribution. The residual distribution that follows the diagonal line consistently indicates that the normality assumption is met, which is important for the validity of the regression model used. When these points are close to the diagonal line, this indicates that there is no significant deviation from the normal distribution, so the model built can be considered reliable in analyzing the data and providing accurate results.

Table 3. Multicollinearity Test

		Coefficients ^a					Collinearity Statistics	
		Unstandardized Coefficients		Standardized Coefficients	t	Sig.		
Model		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	4.917	.660		7.453	.000		
	Number of Idle Assets (X1)	.093	.064	.144	1.467	.146	.652	1.535
	Technological Advancement (X2)	.428	.082	.660	5.190	.000	.389	2.570
	Adequate Rules (X3)	-.012	.097	-.017	-.121	.904	.317	3.159

a. Dependent Variable: Increased State Revenue

Table 3 shows the results of the multicollinearity test to see the relationship between independent variables and ensure that there is no significant multicollinearity problem in the regression model. The Tolerance value for all variables is greater than 0.1 and the Variance Inflation Factor (VIF) value is below 10, indicating that there is no significant multicollinearity in the model. The variable Number of Idle Assets (X1) has a VIF value of 1.535, indicating that this variable does not have a high correlation with other variables. Technological Progress (X2) has a VIF value of 2.570, slightly higher but still within safe limits, indicating no multicollinearity. While Adequate Regulation (X3) has a VIF value of 3.159, which is also still below the threshold, indicating that multicollinearity is not a major problem in this model.

Multiple Linear Regression Analysis.

Table 4. Multiple Linear Regression Analysis

		Coefficients ^a				
		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
Model		B	Std. Error	Beta		
1	(Constant)	4.917	.660		7.453	.000
	Number of Idle Assets (X1)	.093	.064	.144	1.467	.146
	Technological Advancement (X2)	.428	.082	.660	5.190	.000
	Adequate Rules (X3)	-.012	.097	-.017	-.121	.904

a. Dependent Variable: Increased State Revenue

Table 4 shows the results of the multiple linear regression analysis test used to see the influence of independent variables (Number of Idle Assets X1, Technological Progress X2, and Adequate Regulations X3) on the dependent variable (Increased State Revenue Y). From the table, the regression equation that can be produced is:

$$Y=4.917+0.093X_1+0.428X_2-0.012X_3 \tag{1}$$

In this equation, the Number of Idle Assets (X1) has a coefficient of 0.093, which means that if there is an increase in X1 by one unit, then State Revenue will increase by 0.093, but this effect is not significant because the significance value is 0.146 (greater than 0.05). The Technological Progress variable (X2) has the highest coefficient of 0.428, indicating that this variable has the most significant effect on the Increase in State Revenue with a significance value of 0.000 (less than 0.05), which means that increasing technological progress significantly increases state revenue. Meanwhile, Adequate Regulation (X3) has a coefficient of -0.012, indicating a negative but insignificant effect because the significance value is 0.904. These results indicate that the technology factor has the greatest contribution to increasing state revenue, while the effect of adequate regulations is not significant in this model.

Hypothesis Testing.

Table 5. t-test

		Coefficients ^a				
Model		Unstandardized Coefficients	Standardized Coefficients	t	Sig.	

		B	Std. Error	Beta		
1	(Constant)	4.917	.660		7,4	.00
					53	0
	Number of Idle Assets (X1)	.093	.064	.144	1,4	.14
					67	6
	Technological Advancement (X2)	.428	.082	.660	5.1	.00
					90	0
	Adequate Rules (X3)	-.012	.097	-.017	-.1	.90
					21	4

a. Dependent Variable: Increased State Revenue

The t-test in multiple linear regression analysis is used to test the significance of the influence of each independent variable on the dependent variable partially. Based on Table 5, we can see the results of the t-test for each independent variable on the dependent variable "Increasing State Revenue".

1. The variable of *the number of idle assets* (X1), the t value is 1.467 with a significance of 0.146, which is greater than 0.05, so that partially this variable does not have a significant influence on increasing state revenue.
2. *The Technological Progress* variable (X2) has a t-value of 5.190 with a significance of 0.000, which means that this variable has a significant influence on increasing state revenue because its significance value is below 0.05.
3. *Adequate Rules* variable (X3) has a t value of -0.121 with a significance of 0.904, indicating that this variable does not have a significant effect on the dependent variable.

Thus, it can be concluded that only Technological Progress significantly influences the Increase in State Revenue, while other variables do not provide a significant partial influence.

Table 6. F Test

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	104,898	3	34,966	27,5	.000
	Residual	96,289	76	1,267	98	^b
	Total	201,188	79			

a. Dependent Variable: Increased State Revenue

b. Predictors: (Constant), Adequate Regulation (X3), Number of Idle Assets (X1), Technological Progress (X2)

Table 6 shows the results of the F test through ANOVA analysis to measure whether the independent variables simultaneously have a significant effect on the dependent variable, namely Increasing State Revenue. The results of the F test show

an F value of 27,598 with a significance of 0.000, which is far below the significance threshold of 0.05. This shows that simultaneously, the variables of the Number of Idle Assets (X1), Technological Progress (X2), and Adequate Regulations (X3) together have a significant effect on increasing state revenue. The Sum of Squares value in the regression of 104,898 and the Mean Square value of 34,966 also indicate that the variation explained by the regression model is quite large when compared to the Residual of 96,289. Therefore, this regression model can be considered valid to explain the relationship between the independent variables and the dependent variable.

Table 7. Test of Determination Coefficient (R^2)

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.722 ^a	.521	.503	1.126

a. Predictors: (Constant), Adequate Rules (X3), Number of Idle Assets (X1), Technological Progress (X2)

Table 7 shows the results of the Determination Coefficient Test (R^2) used to measure how much the independent variables in the model are able to explain the dependent variable, namely the Increase in State Revenue. The R value of 0.722 indicates a strong correlation between the independent variables (Number of Idle Assets (X1), Technological Progress (X2), and Adequate Regulations (X3)) with the dependent variable. The R^2 value of 0.521 means that 52.1% of the variation in the increase in state revenue can be explained by the three independent variables. Meanwhile, the Adjusted R^2 value of 0.503 indicates that when adjustments are made for the number of variables in the model, 50.3% of the variation in the dependent variable can still be explained. The rest, namely 47.9%, is influenced by other factors outside the model. These results indicate that the regression model has a fairly good ability to explain the influence of the variables studied on state revenue.

5.2 Discussion

The Influence of the Number of Idle State Assets (X1) on Increasing State Revenue (Y). Based on the research results, the variable Number of Idle State Assets (X1) has a positive regression coefficient of 0.093, which indicates that every increase in the number of idle assets will increase state revenue, although the effect is not statistically significant (sig. value 0.146 > 0.05). This means that although there is a tendency that optimizing idle state assets can increase state revenue, in the context of this study, the impact is not too strong. This may be due to other more dominant factors, such as the role of technology or regulatory policies that have not been optimized simultaneously with the management of idle assets. This result is in line with several studies that show that idle state assets tend to be a burden on the budget if not utilized optimally.

Previous research by [22] also indicated that optimizing idle state assets, especially through rental schemes or use for commercial purposes, has great potential to increase Non-Tax State Revenue (PNBP), but only if supported by appropriate policies and

effective implementation. In addition, research by [23] found that inefficient asset management is one of the main obstacles to increasing state revenue, especially because idle assets are often not utilized or not sold strategically. Both of these studies support the conclusion that although there is potential for increasing revenue from idle assets, stronger synergy is needed between policy, technology, and asset management to achieve a significant impact on state revenue.

The Influence of Technological Progress (X2) on Increasing State Revenue (Y).

Based on the research results, the variable Technological Progress (X2) has a significant influence on Increasing State Revenue (Y), with a regression coefficient of 0.428 and a significance value of 0.000, which is far below the threshold of 0.05. This shows that technological progress plays an important role in increasing state revenue, because it allows the management of state assets and resources more efficiently and transparently. Information technology, such as big data, cloud computing, and blockchain, allows the government to track, monitor, and maximize the use of state assets, which ultimately increases potential revenue. For example, technology enables a more accurate and automated reporting system, which can reduce state revenue leakage and speed up decision making.

This study is in line with previous studies by [24] which showed that the implementation of digital technology in the financial and government administration sectors significantly increased the efficiency of state revenue collection. In addition, research by [25] also showed that the implementation of cloud-based technology in government institutions has succeeded in increasing the accuracy of state asset management, thereby increasing Non-Tax State Revenue (PNBP). Both studies reinforce the finding that technological advances play a key role in supporting increased state revenue through better utilization of government assets and resources.

The Influence of the Number of Adequate Regulations (X3) on Increasing State Revenue (Y).

the Adequate Rules variable (X3) does not have a significant effect on Increasing State Revenue (Y). The regression coefficient for this variable is -0.012 with a significance value of 0.904, which is far above the threshold of 0.05, so statistically, adequate rules do not have a significant effect on increasing state revenue in this model. Although theoretically clear and strong rules are expected to increase the effectiveness of state asset management and maximize revenue, the results of this study indicate that the implementation of existing rules may not be optimal or not in line with the needs of asset management and existing technology.

These results differ from research conducted by [26], who found that strong and transparent regulations related to state asset management can increase accountability and efficiency, which ultimately increases state revenues. Another study by [27] also emphasized the importance of adequate regulations in supporting asset optimization, especially in terms of transparency and accountability. However, in the context of this study, existing regulations may not have been implemented effectively or are not flexible enough to accommodate the development of more modern asset management technologies and strategies, which could be the reason why their influence is not significant in increasing state revenues.

The Influence of the Number of Idle State Assets (X1), Technological Progress (X2), Adequate Regulations (X3) on Increasing State Revenue (Y). Based on the research results, the variables of Number of Idle State Assets (X1), Technological Progress (X2), and Adequate Regulations (X3) simultaneously have a significant effect on Increasing State Revenue (Y), as shown in the results of the F test with an F value of 27.598 and a significance value of 0.000 (below 0.05). This shows that the three independent variables together contribute to increasing state revenue. Among the three variables, Technological Progress (X2) has the most dominant effect with a regression coefficient of 0.428 and a significance of 0.000, which confirms that the application of appropriate technology in managing state assets is very effective in increasing state revenue. However, partially, the Number of Idle Assets (X1) and Adequate Regulations (X3) do not have a significant effect on Increasing State Revenue (Y), with significance values of 0.146 and 0.904 respectively. This suggests that while idle asset management and adequate regulations have the potential to support increased state revenue, they may require further support in terms of effective implementation or synergy with technology to have a more significant impact.

6 Conclusion

In closing, this study has identified that optimizing state asset management is a potential solution in creating a more reliable source of state revenue. Of the three variables studied, namely the Number of Idle Assets, Technological Progress, and Adequate Regulations, only Technological Progress shows a partial significant effect on increasing state revenue. This emphasizes the importance of technology integration in state asset management to improve efficiency and transparency. Although the Number of Idle Assets and Adequate Regulations do not provide a partial significant effect, these three variables simultaneously contribute to increasing state revenue. Therefore, more targeted policies, especially in the implementation of technology and regulations, are needed to optimize the use of state assets, which will ultimately increase state revenue in a sustainable manner. This study also shows that idle asset management still requires support from more flexible regulations and comprehensive implementation strategies. With the synergy between technological progress and appropriate policies, Indonesia has the potential to optimize state assets that have not been utilized so far, so that they can contribute to the stability of state finances in the future.

References

1. R. Simbolon, W. Sihotang, and J. Sihotang, "GEMOY: Green Energy Management and Optimization Yields Tapping Ocean Potential: Strategies for integrating tidal and wave energy into national power grids," *GEMOY: Green Energy Management and Optimization Yields*, vol. 1, no. 1, pp. 49–65, 2024.
2. T. Widiastuti, E. F. Cahyono, S. Zulaikha, I. Mawardi, and M. U. Al Mustofa, "Optimizing zakat governance in East Java using analytical network process (ANP): the role of zakat technology (ZakaTech)," *Journal of Islamic Accounting and Business Research*, vol. 12, no. 3, pp. 301–319, 2021. doi: 10.1108/JIABR-09-2020-0307.

3. M. Meliani, A. El Barkany, I. El Abbassi, A. M. Darcherif, and M. Mahmoudi, "Energy management in the smart grid: State-of-the-art and future trends," *International Journal of Engineering Business Management*, vol. 13, pp. 1–26, 2021. doi: 10.1177/184797902111032920.
4. M. Ordu, E. Demir, C. Tofallis, and M. M. Gunal, "A novel healthcare resource allocation decision support tool: A forecasting-simulation-optimization approach," *Journal of the Operational Research Society*, vol. 72, no. 3, pp. 485–500, 2021. doi: 10.1080/01605682.2019.1700186.
5. K. Zhang et al., "Digital twin-based opti-state control method for a synchronized production operation system," *Robotics and Computer-Integrated Manufacturing*, vol. 63, 2020. doi: 10.1016/j.rcim.2019.101892.
6. B. Ojo, "Strategies for the optimization of critical infrastructure projects to enhance urban resilience to climate change," *Research Gate*, vol. 13, no. 3, 2024.
7. J. Udoayang, "Optimizing return on assets through investment in property, plant and equipment: Evidence from listed Nigerian manufacturing companies," *International Journal of Management and Humanities*, vol. 4, no. 10, pp. 50–57, 2020. doi: 10.35940/ijmh.j0950.0641020.
8. E. Gavrikova, I. Volkova, and Y. Burda, "Strategic aspects of asset management: An overview of current research," *Sustainability (Switzerland)*, vol. 12, no. 15, pp. 9–11, 2020. doi: 10.3390/su1215595.
9. I. M. Sara, K. A. K. Saputra, and I. W. K. J. Utama, "The effects of strategic planning, human resource, and asset management on economic productivity: A case study in Indonesia," *Journal of Asian Finance, Economics and Business*, vol. 8, no. 4, pp. 381–389, 2021. doi: 10.13106/jafeb.2021.vol8.no4.0381.
10. D. Trabucchi, S. Sanasi, A. Ghezzi, and T. Buganza, "Idle asset hunters—The secret of multi-sided platforms," *Research Technology Management*, vol. 64, no. 1, pp. 33–42, 2021. doi: 10.1080/08956308.2021.1842677.
11. O. E. Iluore, A. Mamudu Onose, and M. Emetere, "Development of asset management model using real-time equipment monitoring (RTEM): Case study of an industrial company," *Cogent Business and Management*, vol. 7, no. 1, 2020. doi: 10.1080/23311975.2020.1763649.
12. F. Ullah, S. M. E. Sepasgozar, M. J. Thaheem, and F. Al-Turjman, "Barriers to the digitalisation and innovation of Australian smart real estate: A managerial perspective on the technology non-adoption," *Environmental Technology and Innovation*, vol. 22, 2021. doi: 10.1016/j.eti.2021.101527.
13. S. Khalatur, H. Pavlova, L. Vasilieva, D. Karamushka, and A. Danileviča, "Innovation management as the basis of digitalization trends and security of the financial sector," *Entrepreneurship and Sustainability Issues*, vol. 9, no. 4, pp. 56–76, 2022. doi: 10.9770/jesi.2022.9.4(3).
14. S. AlGhamdi, K. T. Win, and E. Vlahu-Gjorgievska, "Information security governance challenges and critical success factors: Systematic review," *Computers and Security*, vol. 99, 2020. doi: 10.1016/j.cose.2020.102030.
15. R. A. Zhanbayev et al., "State asset management paradigm in the quasi-public sector and environmental sustainability: Insights from the Republic of Kazakhstan," *Frontiers in Environmental Science*, vol. 10, Jan. 2023. doi: 10.3389/fenvs.2022.1037023.
16. R. Unless, "The three pillars of institutional theory and IFRS implementation in Nigeria," *Journal of Accounting in Emerging Economies*, vol. 7, no. 3, 2019.
17. P. Institute, O. J. Blanchard, J. Zettelmeyer, and A. Leandro, "Redesigning EU fiscal rules: From rules to standards," *SSRN Electronic Journal*, Feb. 2021. doi: 10.2139/ssrn.3810052.
18. C. Dick-Sagoie, "Decentralization for improving the provision of public services in developing countries: A critical review," *Cogent Economics and Finance*, vol. 8, no. 1, 2020. doi: 10.1080/23322039.2020.1804036.

19. B. D. McDonald and S. E. Larson, "Implications of the coronavirus on sales tax revenue and local government fiscal health," *Journal of Public and Nonprofit Affairs*, vol. 6, no. 3, pp. 377–400, 2021. doi: 10.20899/JPNA.6.3.377-400.
20. Sugiyono, *Quantitative, Qualitative, and R&D Research Methods*, Bandung: Alfabeta, 2019.
21. J. W. Creswell and J. D. Creswell, "Mixed methods procedures," in *Research Define: Qualitative, Quantitative, and Mixed Methods Approaches*, 2018.
22. I. V. L. Sitindaon, F. Febrian, R. Ridwan, and I. Rumesten, "Reconstruction of utilization arrangements for the state assets in the form of land to increase non-tax state revenue," *Sasi*, vol. 28, no. 2, p. 268, 2022. doi: 10.47268/sasi.v28i2.938.
23. T. S. Linuhung and E. Mediawati, "Asset management, optimization of asset use, and its effect on local own-source revenue," *International Journal of Business, Law, and Education*, vol. 4, no. 2, pp. 1475–1487, 2023. doi: 10.56442/ijble.v4i2.346.
24. C. L. Chen, Y. C. Lin, W. H. Chen, C. F. Chao, and H. Pandia, "Role of government to enhance digital transformation in small service businesses," *Sustainability (Switzerland)*, vol. 13, no. 3, 2021. doi: 10.3390/su13031028.
25. M. Mousa, "Determinants of cloud-based e-government in Libya," *Journal of Critical Reviews*, vol. 7, Aug. 2020.
26. I. T. Jumaniyazov, "Transparency is a key indicator of the activity of sovereign wealth funds," *The American Journal of Management and Economics Innovations*, vol. 3, no. 5, pp. 30–37, 2021.
27. T. Vian, "Anti-corruption, transparency and accountability in health: Concepts, frameworks, and approaches," *Global Health Action*, vol. 13, suppl. 1, 2020. doi: 10.1080/16549716.2019.1694744.

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