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# Analysis of the application on capitalization method of fixed asset maintenance costs

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***Abstract*---**This study aims to understand the extent to which cost capitalization is applied in the recording of fixed assets at Perumda Air Minum Tirta Mangutama. A qualitative method with an interpretative approach is used to understand this phenomenon. Data analysis follows the Miles and Huberman model, which includes data collection through interviews, observations, and documents; data filtering and organization; presentation in the form of narratives or tables; and drawing conclusions based on identified patterns. The research shows that Perumda Air Minum Tirta Mangutama has not capitalized repair costs for previous assets, as evidenced by recording repair costs as new assets in the 2022 asset register.

***Keywords*---**Fixed Assets, Capitalization, Repair.

## Introduction

The management of company assets, especially fixed assets, has an important role in maintaining the continuity of company operations. Assets are resources owned by a company that are expected to provide economic benefits in the future. The importance of fixed asset management is further clarified by technological developments that can affect the way assets are managed. Companies must adapt by using technology to simplify management and reduce calculation errors that can affect financial statements.

In the process of recording fixed assets, it is very important to measure the acquisition value of fixed assets, including initial acquisition, development, and maintenance. Companies must also analyze the process of maintaining and depreciating fixed assets. In analyzing the benefits provided by assets, companies need to consider the age of the asset, the condition of the asset, the failure

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history, and the history of the asset. When asset failure or damage occurs, continuous repair and maintenance are required. Maintenance costs are costs incurred to keep an asset in good working order and generally do not require capitalization to the value of the main asset. However, large maintenance costs may affect the useful life of the fixed asset and require capitalization to the main asset already recorded.

Perumda Air Minum Tirta Mangutama, as a clean water service provider company, has a vision and mission that emphasizes quality service and community welfare. Therefore, the management of fixed assets, especially buildings, needs to be improved to avoid problems in financial recording caused by discrepancies in capitalization of asset values.

**Methods**

This research uses descriptive research with a qualitative approach to understand the application of capitalization costs in recording fixed assets at Perumda Air Minum Tirta Mangutama. This descriptive research aims to provide a detailed description of the practices and policies applied in the management of the company's fixed assets.

The qualitative method was chosen because it is able to produce in-depth information from various perspectives. Data was collected through interviews, observations, and document analysis with individuals who understand fixed asset management. This approach allows researchers to dig deeper into complex issues and adjust questions based on findings that emerge during the research.

The researcher will analyze fixed asset data, particularly buildings, and confirm the results through interviews. This method is expected to provide a comprehensive understanding of the capitalization of costs in recording fixed assets at Perumda Air Minum Tirta Mangutama.

Data obtained from interviews, observations, and documentation were organized and simplified to facilitate analysis. The data was analyzed systematically to describe and explain the characteristics, processes, and challenges faced in recording fixed assets.

This study also examines the effectiveness of fixed asset recording methods, particularly in the capitalization of development costs and maintenance costs. The capitalization technique is an indicator to assess the suitability and effectiveness of the method used by the company. The interpretive qualitative approach and fixed asset capitalization techniques applied in this study are expected to provide an in-depth perspective and solutions to problems in recording and managing fixed assets in the company.

This research uses a qualitative method with an interpretive approach to understand the phenomenon of recording fixed asset data in the Tirta Mangutama Drinking Water General Company. This approach allows the disclosure of various meanings that lie behind the phenomenon and provides a valid picture to be analyzed in depth and explores the understanding and perspectives of individuals involved in fixed asset management.

**Result and Discussion**

In the 2022 Financial Report of Perumda Air Minum Tirta Mangutama, the company's asset value was recorded at Rp 676,662,890,948.29 with a book value as of December 2022 of Rp 274,115,627,899.80. The asset value consists of several types of assets classified into 9 groups of fixed assets with the following details:

Table 1. Classification of Fixed Assets Group of Perumda Tirta Mangutama

| No | Assets | Book Value |
|---|---|---|
| 1 | Soil | Rp 5,684,015,390.00 |
| 2 | Water Source Installation | Rp 15,753,730,802.26 |
| 3 | Pumping Installation | Rp 49,024,772,016.00 |
| 4 | Water Treatment Plant | Rp 122,322,399,117.81 |
| 5 | Distribution Installation | Rp 435,789,913,447.64 |
| 6 | Building/Building | Rp 8,294,689,010.00 |
| 7 | Office Equipment and Supplies | Rp 15,666,541,417.58 |
| 8 | Vehicles/Transportation Equipment | Rp 8,521,609,752.00 |
| 9 | Inventory/Office Furniture | Rp 15,605,219,995.00 |
| | Total | **Rp 676,662,890,948,29** |

Secondary Data, 2024

Perumda Air Minum Tirta Mangutama has a positive view of the application of the capitalization method of fixed asset maintenance or repair costs. It is considered an important step in managing the company's assets. However, Perumda Air Minum Tirta Mangutama has not yet implemented this capitalization method into its recording process, this is due to limited personnel and a system that does not yet support the calculation by considering the efficiency of the time required.

Perumda Air Minum Tirta Mangutama sees several important benefits in the application of the fixed asset cost capitalization method to decision making and fixed asset improvements. One of the benefits expressed is the ability to plan long-term maintenance budgets. One important aspect in the recognition of fixed asset acquisition costs is capitalization. Capitalization is a way to strengthen financial statements and to ensure that significant costs associated with the acquisition of fixed assets can be distributed over the life of the asset. In its implementation, Perumda Air Minum Tirta Mangutama has capitalized all acquisition costs by recording all costs incurred when the asset can be used.

Perumda Air Minum Tirta Mangutama records expenses after recognition by charging them as costs and recording them as new assets if the expenses are in the form of repairs and maintenance that have significant value. When referring to the list of fixed assets from Tirta Mangutama Drinking Water Company, information is obtained that the company still records the recognition of fixed asset repairs by creating a new asset account without considering the value of the previous asset.

Perumda Air Minum Tirta Mangutama recognizes the value of fixed assets at their initial acquisition value which is then depreciated using the straight-line method over the useful life of each asset. The determination of the useful life of each asset is determined based on the tax law (Law Number 7 of 1983) as last amended by Law Number 36 of 2008 and Decree of the Minister of Finance Number: 257tP\tK..0312008 Dated December 3, 2008. The classification and amount of depreciation rates on fixed assets at Perumda Air Minum Tirta Mangutama are as follows:

Table 2. Depreciation Rates of Perumda Air Minum Tirta Mangutama

| Type of Class | % Depreciation | Remarks |
|---|---|---|
| Class I | 50% | From Book value |
| Class II | 25% | From Book value |
| Class III | 12,5% | From Book value |
| Class IV | 10% | From Book value |
| Permanent Building Class | 5% | From acquisition value |
| Non-permanent Building Class | 10% | From acquisition value |

Secondary Data, 2024

Based on the above tariff value, Perumda Air Minum Tirta Mangutama calculates depreciation with a value until December 2022 of Rp 402,546,901,351.00 as stated in the following 2022 Financial Statements (Audited):

Acquisition Price Rp 676,662,890,913.00
Accumulated Depreciation Rp 402,546,901,351.00
Total Fixed Assets Rp 274,115,989,562.00

Perumda Air Minum Tirta Mangutama calculates depreciation on assets formed from the value of improvements that have been made by estimating the useful life of assets that will be difficult to physically trace. The calculation of depreciation carried out will be recorded in the journal as follows:

Depreciation Expenses xxx
    Accumulated Depreciation xxx

*Application of the Entity Principle in Capitalizing Fixed Asset Maintenance Costs at Perumda Air Minum Tirta Mangutama*

The results showed that Perumda has not applied the capitalization method for fixed asset maintenance costs in accordance with the entity principle. The entity principle requires a clear separation between company assets and personal assets. However, the observed practice shows that maintenance costs are still recorded as operational expenses or considered as the creation of new assets, not as an increase in the value of existing fixed assets.

By not implementing capitalization of maintenance costs, Perumda's financial statements do not accurately reflect the true value of fixed assets. The value of fixed assets in the balance sheet does not reflect the increase in value from the maintenance that has been carried out, so management loses important information for investment decision making and maintenance of fixed assets.

*Application of Historical Cost Principle in Fixed Asset Capitalization at Perumda Air Minum Tirta Mangutama*

The results showed that Perumda also has not applied the capitalization method for fixed asset maintenance costs in accordance with the historical cost principle. The historical cost principle requires that fixed assets should be recorded in the financial statements based on their acquisition cost. However, the observed practice shows that maintenance costs are still recorded in an inappropriate manner, such as forming new assets, rather than as an increase in the value of existing fixed assets.

By not applying the historical cost principle, Perumda's financial statements lack reliability and accuracy in reflecting the true value of fixed assets. Significant maintenance costs are not recorded as an increase in the value of fixed assets, reducing the reliability of financial statements in providing an accurate picture to users of financial statements such as investors and creditors.

*Recording of Fixed Asset Recognition at Perumda Air Minum Tirta Mangutama*

The implementation of recording fixed assets when referring to the Accounting Standards for Entities Without Public Accountability and Regulation of the Minister of Regional Autonomy Number 8 of 2000 concerning Accounting Guidelines for Regional Drinking Water Companies by journaling as follows:

Fixed Assets xxx
        Debt xxx

Based on this information, Perumda Air Minum Tirta Mangutama has carried out the process of recording the recognition of fixed assets in accordance with applicable accounting principles. The initial recognition of fixed assets is carried out based on supporting documents which are an attachment to the accountability for the implementation of activities in building assets at Perumda Air Minum Tirta Mangutama. The Finance Department will recognize the acquisition value of these assets into the ledger by journaling:

Fixed Assets xxx
        Payable xxx

*Expenditure after recognition of Fixed Assets*

When a fixed asset undergoes repairs, Perumda Tirta Mangutama must decide whether the repair costs should be capitalized as an increase in the value of the fixed asset or recognized as an operating expense. Perumda Air Minum Tirta Mangutama tends not to capitalize repair costs, which could have a significant impact on financial reporting and decision making. This is because Perumda records new assets for the cost of repairs made to an asset.

One of the main impacts of not capitalizing repair costs is that the company's financial statements may not reflect the true value of fixed assets. When repair costs are considered as operating expenses, the fixed assets may appear lower in value than they should be, as well as the repair costs are recognized as new assets which will have an impact on the value of fixed assets may be recorded not in accordance with the real amount owned. This results in an inaccurate presentation in the financial statements and gives an unfavorable picture of the company's financial success. In addition, neglecting the capitalization of repair costs may obscure the information provided to stakeholders. Stakeholders may find it difficult to understand the extent to which repair costs have affected the value of fixed assets and their impact on the company's performance.

*Application of Depreciation Principles in Capitalizing Fixed Asset Maintenance Costs at Perumda Air Minum Tirta Mangutama*

The results showed that Perumda Air Minum Tirta Mangutama has not applied the method of capitalizing fixed asset maintenance costs in accordance with the applicable depreciation principles. The depreciation principle requires the allocation of fixed asset acquisition costs, including significant maintenance costs, over the useful life of the asset. However, observed practices show that maintenance costs are still not recorded as an increase in the value of existing fixed assets.

By not applying the depreciation principle in capitalizing maintenance costs, Perumda's financial statements lack reliability and accuracy in reflecting the actual value of fixed assets. Significant maintenance costs are not recorded and depreciated properly, thus reducing the reliability of information provided to stakeholders such as investors and creditors.

*Depreciation of Fixed Assets*

Depreciation practices in Perumda Air Minum Tirta Mangutama tend to use the straight-line depreciation method, which in its implementation ignores the calculation of depreciation on fixed assets that have been repaired or maintained. Cost capitalization practices that do not comply with applicable accounting regulations related to the capitalization of fixed asset costs may place Perumda Air Minum Tirta Mangutama at compliance risk. External auditors or other interested parties may find violations or discrepancies. Besides this, of course, Perumda Air Minum Tirta Mangutama's management relies on accurate and transparent financial statements to make strategic decisions. If the capitalization of fixed asset costs is not properly applied, management may find it difficult to make decisions based on accurate financial information.

In general, the process of depreciation of fixed assets at Perumda Air Minum Tirta Mangutama is technically in accordance with the Financial Accounting Standards for Entities Without Accountability by applying the straight-line depreciation method. Depreciation recording is done by journaling:

Depreciation Expense xxx
Accumulated Depreciation xxx

However, when repairs to fixed assets are carried out, Perumda Air Minum Tirta Mangutama calculates depreciation on assets arising from these repairs separately from the previous assets. The following presents an example of recording fixed assets that runs at Perumda Air Minum Tirta Mangutama:

Table 3. Journal Recording of Recognition and Depreciation of Fixed Assets at Perumda Air Minum Tirta Mangutama

Asset Group: Water Treatment Plant
Asset Name: South Badung Clean Water Facility
Year of Recognition: July 2017
Year of Improvement: March 2022

| Year | Account | | Debt (Rp) | Credit (Rp) | Remarks |
|---|---|---|---|---|---|
| 2017 | Fixed Assets | | 6,929,943,592 | | |
| | | Debt | | 6,929,943,592 | |
| 2017 | Depreciation Expenses | | 173,248,590 | | |
| | | Accumulated Depreciation | | 173,248,590 | |
| 2018 | Depreciation Expenses | | 346,497,180 | | |
| | | Accumulated Depreciation | | 346,497,180 | |
| 2019 | Depreciation Expenses | | 346,497,180 | | |
| | | Accumulated Depreciation | | 346,497,180 | |
| 2020 | Depreciation Expenses | | 346,497,180 | | |
| | | Accumulated Depreciation | | 346,497,180 | |
| 2021 | Depreciation Expenses | | 346,497,180 | | |
| | | Accumulated Depreciation | | 346,497,180 | |
| 2022 | Depreciation Expenses | | 346,497,180 | | |
| | | Accumulated Depreciation | | 346,497,180 | |
| 2017 | Aktiva tetap | | 163,680,000 | | Improvement Asset |
| | | Debt | | 163,680,000 | |
| 2017 | Depreciation Expenses | | 6,820,000 | | Depreciation on Improvements |
| | | Accumulated Depreciation | | 6,820,000 | |

Secondary Data, 2024

Based on the table above, Perumda Air Minum Tirta Mangutama performs journaling by recognizing the cost of repairs to assets into new assets or assets. The new asset will then be depreciated as fixed assets in general.

Table 4. Recording and Calculation of Depreciation on Repairs at Perumda Air Minum Tirta Mangutama

Asset Group: Water Treatment Plant
Asset Name: South Badung Clean Water Facility
Year of Recognition: July 2017
Year of Improvement: March 2022

| Description | Year | Depreciation (Rp) | | | Book Value (Rp) |
|---|---|---|---|---|---|
| | | % Per Year | Depreciation Value | Accumulated Depreciation | |
| Improvements | Maret 2022 | | | | 163,680,000 |
| Depreciation | 2022 | 5% | 6,820,000 | 6,820,000 | 156,860,000 |

Secondary Data, 2024

When referring to the Financial Accounting Standards for Entities without Public Accountability, the process of recording assets and calculating depreciation should be done as follows:

Table 5. Journal Recording of Recognition, Repair and Depreciation of Fixed Assets at Perumda Air Minum Tirta Mangutama

| Year | Account | Debt (Rp) | Credit (Rp) | Remarks |
|---|---|---|---|---|
| 2017 | Fixed Asset | 6,929,943,592 | | |
| | Debt | | 6,929,943,592 | |
| 2017 | Depreciation Expenses | 173,248,590 | | |
| | Accumulated Depreciation | | 173,248,590 | |
| 2018 | Depreciation Expenses | 346,497,180 | | |
| | Accumulated Depreciation | | 346,497,180 | |
| 2019 | Depreciation Expenses | 346,497,180 | | |
| | Accumulated Depreciation | | 346,497,180 | |
| 2020 | Depreciation Expenses | 346,497,180 | | |
| | Accumulated Depreciation | | 346,497,180 | |
| 2021 | Depreciation Expenses | 346,497,180 | | |
| | Accumulated Depreciation | | 346,497,180 | |
| 2022 | Accumulated Depreciation | 163,680,000 | | Asset Improvement |
| | Depreciation Expenses | | 163,680,000 | |
| 2022 | Depreciation Expenses | 288,747,650 | | |
| | Accumulated Depreciation | | 288,747,650 | |

Secondary Data, 2024

Table 6. Recording and Presentation of Fixed Assets at Perumda Air Minum Tirta Mangutama in accordance with Accounting Standards for Entities without Public Accountability

Asset Group: Water Treatment Plant
Asset Name: South Badung Clean Water Facility
Year of Recognition: July 2017
Year of Improvement: March 2022

| Description | Year | Depreciation | | | Book Value |
|---|---|---|---|---|---|
| | | % Per Year | Depreciation Value | Accumulated Depreciation | |
| Acquisition | July 2017 | | | | 6,929,943,592 |
| Depreciation | 2017 | 5% | 173,248,590 | 173,248,590 | 6,756,695,002 |
| | 2018 | 5% | 346,497,180 | 519,745,769 | 6,410,197,823 |
| | 2019 | 5% | 346,497,180 | 866,242,949 | 6,063,700,643 |
| | 2020 | 5% | 346,497,180 | 1,212,740,129 | 5,717,203,463 |
| | 2021 | 5% | 346,497,180 | 1,559,237,308 | 5,370,706,284 |
| | Jan-Feb 2022 | 5% | 57,749,530 | 1,616,986,838 | ,312,956,754 |
| Improvement | March 2022 | | | 163,680,000 | |
| Initial Recognition | March 2022 | | | 1,453,306,838 | 5,476,636,754 |
| Depreciation | Mar- Dec 2022 | 5% | 288,747,650 | 1,742,054,488 | 5,187,889,104 |

Secondary Data, 2024

Based on the discussion above, it is found that Perumda Air Minum Tirta Mangutama requires special attention in the process of recognizing acquisition costs, recognizing costs incurred after recording the acquisition of assets to the depreciation to be carried out, so that the implementation of records can be in line with applicable accounting principles as referred to in the Accounting Standards for Entities Without Public Accountability.

## Conclusion

Based on research on the application of the capitalization method of fixed asset maintenance costs at Perumda Air Minum Tirta Mangutama, it is concluded that the implementation of the entity principle, the historical cost principle, and the principle of depreciation and capitalization of fixed asset maintenance costs needs to be improved. Currently, Perumda has recorded journals and depreciation calculations in accordance with the Financial Accounting Standards for Entities without Accountability but has not capitalized maintenance costs effectively. This causes the financial statements to not fully reflect the real condition of the assets owned.

Future research can consider broader cases in the Drinking Water Company industry, especially in applying the fixed asset capitalization method in accordance with the Financial Accounting Standards for Accountable Entities. Expenditures after the initial recognition of fixed assets that extend the useful life or provide future economic benefits should be integrated with the carrying amount of fixed assets.

Perumda Air Minum Tirta Mangutama needs to implement the fixed asset cost capitalization method in accordance with the entity principle, historical cost principle, and depreciation cost principle in its asset recording system. This will improve the reliability and accuracy of financial statements, provide more relevant information for users of financial statements, and support better decision making by management.

Although a semi-automated recording system using Ms. Excel is already in place, Perumda should consider upgrading the system with an application that enables automated recording. This will reduce the workload of the Finance Department and improve efficiency in the asset recording process.

Further research needs to be done regarding the method of recording fixed assets at Perumda, which still lacks detailed information. This will facilitate the process of grouping and retrieving data needed for management decisions.

Future research should involve more informants who are directly involved in the process of recording and managing assets at Perumda. Broader and more in-depth information will support a better scope of research.

*Managerial Implication*

The results of this study can be a valuable guide and a meaningful contribution to management and interested parties in carrying out their management tasks. As an organization subject to strict regulations, success in corporate governance has great potential to be an example that can be followed by other regional companies.

The limitation in this study is that the researcher only uses four informants who are the main key and supporters in the management and recording of fixed assets at Perumda Air Minum Tirta Mangutama. This research has not covered the overall recording of asset management from formation, recognition, to later if the asset is written off. Tracing fixed asset data that can be capitalized into the parent asset is also still experiencing limitations due to irregular writing of asset names and old acquisition years, so informants are not fully able to know the relationship between parent assets and improvements that have been made.

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