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Quantitative factor analysis of fixed asset impairment: a multi-case study of state-owned enterprises in the pharmaceutical and construction sectors

Bagas Anggi Winata[1], Zuhrinal M Nawawi[2], Yenni Samri Juliati Nasution[3]
[1, 2, 3] Fakultas Ekonomi dan Bisnis Islam, Universitas Islam Negeri Sumatera Utara

Abstract
This study examines the quantitative factors influencing fixed asset impairment in two Indonesian state-owned enterprises (BUMN) operating in the pharmaceutical and construction sectors under PSAK 48. The research problem focuses on declining profitability, high leverage, and negative operating cash flows that potentially reduce asset value. The objective is to analyze the relationship between Return on Assets (ROA), Debt to Asset Ratio (DAR), Fixed Asset Turnover (FATO), and Cash Flow from Operations (CFO) with asset impairment risk. A descriptive-comparative quantitative approach was employed using multi-case study data from 2022–2024 financial reports. The findings reveal that persistent negative CFO and high DAR are the main indicators of asset impairment risk, while the implementation of PSAK 48 remains inconsistent. This study concludes that a financial ratio-based quantitative model can serve as an early detection tool for asset impairment in BUMN. This research is limited to a sample of state-owned enterprises and certain quantitative variables, but has implications for increasing the accuracy of asset impairment testing in accordance with PSAK 48, with the novelty of cross-sector multi-case analysis.
Keywords: Asset Impairment, Financial Ratios, PSAK 48

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***Correspondence author:**
winatabagasanggi@gmail.com

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INTRODUCTION

Fixed asset impairment is a fundamental issue in corporate financial reporting in Indonesia because it directly impacts the reliability and relevance of financial statements, particularly for State-Owned Enterprises (SOEs) operating in capital-intensive sectors such as pharmaceuticals and construction. In recent years, published data from the Indonesia Stock Exchange shows that these two sectors have faced financial pressure due to high debt burdens and weak profitability, as reflected in the continuing decline in Return on Assets (ROA) and Cash Flow from Operations (CFO) (Nur et al., 2024). In this context, the risk of fixed asset impairment becomes increasingly significant when companies fail to maintain asset efficiency and face high liquidity pressures (Budhiarjo, 2024). Companies conduct risk evaluations to identify, analyze, and manage financial reporting issues.(Sarana et al. 2023)This phenomenon raises concerns that financial reports no longer reflect the fair value of assets, thus threatening the reliability of economic decisions made by investors and other stakeholders (Noviari et al., 2021).

Companies that want to gain and develop competitive advantages must be able to offer products or services that are superior to their competitors, with lower prices than their competitors, faster delivery times, and better service.(Andre Alkahfi and M. Nawawi 2022)Financial performance itself is the main indicator of a business entity's success in managing resources efficiently.(Rozika and Nasution 2025). The Indonesian Institute of Accountants comprehensively explains PSAK 48: Asset Impairment, including internal and external indicators of impairment. Furthermore, research by Francis et al. and Riedl discusses the practice of recognizing asset impairment and its relationship to economic conditions and earnings management. For indicators of financial distress, Altman's study using the Z-score model can be used as a basis for identifying potential distress that triggers asset impairment. Furthermore, Li and Sloan's research is also relevant in explaining how companies respond to asset impairment in financial statements. Various previous studies have identified that financial ratios such as the Debt to Asset Ratio (DAR), ROA, and Fixed Asset Turnover (FATO) are important indicators in detecting the risk of asset impairment. A study by Utami and Andriani (2024) shows that high leverage significantly affects declining profitability, which ultimately increases the risk of impairment. Furthermore, research by Murti et al. (2024) shows that low ROA is an early indicator of financial distress that can lead to impairment of fixed assets. However, most research still focuses on a single industrial sector, without considering cross-sector risk characteristics such as pharmaceuticals and construction. This research gap indicates the absence of a quantitative analysis model capable of simultaneously integrating financial ratio indicators within the PSAK 48 framework to comprehensively assess fixed asset impairment risk.

This study aims to analyze the quantitative factors influencing the risk of fixed asset impairment in two Indonesian state-owned enterprises (SOEs), namely PT Kimia Farma Tbk and PT Adhi Karya (Persero) Tbk, based on the provisions of PSAK 48 concerning asset impairment. Using a multi-case quantitative analysis approach, this study examines the relationship between four key financial ratios—ROA, DAR, FATO, and CFO—and the risk of fixed asset impairment. By analyzing financial data for the 2022–2024 period, this study attempts to identify patterns of quantitative indicators that can be early signals of asset impairment, as well as provide an empirical comparison between the pharmaceutical and construction sectors. The results of this analysis are expected to strengthen the implementation of PSAK 48 in SOE accounting practices and increase the transparency of financial reporting in Indonesia.

The urgency of this research lies in the need to develop a more objective quantitative analysis framework for detecting fixed asset impairment risk in state-owned enterprises (SOEs). When companies fail to perform impairment testing in accordance with PSAK 48, financial statements can provide a misleading picture of asset performance and financial position (Hasanatun & Saragi, 2025). A multi-case quantitative approach allows for empirical testing of the relationship between leverage, profitability, efficiency, and cash flow in assessing fixed asset impairment risk. Therefore, this research not only provides a theoretical contribution to the

PSAK 48 literature but also provides a practical contribution for SOE management and external auditors in identifying potential impairments early, thus supporting more transparent and accountable financial governance (Asmin & Kartini, 2024).

LITERATURE REVIEW

Definition of the Concept of Asset Impairment

Asset impairment is a condition where the carrying amount of an asset exceeds its recoverable amount, as described in PSAK 48 and IAS 36. This concept emphasizes that assets should not be recorded at amounts exceeding their actual capacity to generate future economic benefits (Kartika et al., 2022). Therefore, impairment aims to ensure that financial statements reflect fair value and do not mislead users. In practice, asset impairment arises from changes in economic, technological, and financial conditions that reduce the potential economic benefits of the asset (Mulyanengsih, 2025). This impairment assessment is important because it directly impacts net income, financial position, and investor perceptions of the company's performance (Lestari, 2021).

Categorization or Manifestation of Asset Impairment

Manifestations of asset impairment can be categorized into two main indicators: external and internal. External indicators include a significant decline in the asset's market value, changes in industry conditions, and rising interest rates that reduce the present value of future cash flows (Mardiati, 2022). Internal indicators include physical damage to the asset, decreased operating efficiency, negative operating cash flow, or prolonged idle capacity (Lestari, 2021). Furthermore, according to PSAK 48, companies are required to conduct periodic impairment tests if there are indications of impairment. This process involves comparing the asset's carrying amount with its recoverable amount, either based on value in use or fair value less costs to sell. If the carrying amount is higher, the difference is recognized as an impairment loss in the income statement. This approach ensures more relevant and accurate financial reporting for stakeholders.

Definition of PSAK 48 Concept

PSAK 48 is an accounting standard that specifically regulates the recognition, measurement, and disclosure of impairment of fixed assets and other non-financial assets in Indonesia. This standard is adapted from IAS 36 and serves to ensure that the value of assets in financial statements does not exceed the amount of economic benefits that can be obtained from them (Kartika et al., 2022). In PSAK 48, the recoverable amount of an asset is determined as the higher of its fair value less costs to sell and its value in use. This standard emphasizes the need for management professionalism and prudence in evaluating asset conditions, especially in companies with high levels of economic uncertainty, such as state-owned enterprises in the construction and pharmaceutical sectors (Indramawan, 2021). PSAK 48 also emphasizes the importance of transparent disclosure of information regarding the estimation methods and assumptions used in determining impairment losses.

Categorization or Manifestation of PSAK 48

In its application, PSAK 48 groups assets that require impairment testing based on their cash-generating unit (CGU). A CGU is defined as the smallest group of assets that generates cash flows independently from other assets or groups of assets (Imanuddin, 2024). This is crucial to ensure that testing is conducted accurately at the most relevant operational level. PSAK 48 also stipulates that any indication of impairment must be tested at the financial reporting date. Value in use is measured by discounting estimated future cash flows using a discount rate that reflects market assessments of the time value of money and the asset's specific risks. The implementation of PSAK 48 can be observed through the recording of impairment losses, disclosure of recoverable value assumptions, and changes in the estimated residual value or useful life of assets (Ika et al., 2024).

Definition of the Concept of Financial Ratios

Ratio analysis is a common method used in report analysis to measure a company's strengths or weaknesses in the financial sector.(Murti, Sheviyani, and Desiree 2023)Financial ratios are analytical tools used to evaluate a company's performance and financial condition through mathematical relationships between financial statement items. In the context of this research, financial ratios are used as quantitative indicators capable of identifying potential impairment of fixed assets. Some relevant ratios include ROA, DAR, FATO, and CFO (Firmansyah et al., 2023). These ratios provide a comprehensive overview of a company's profitability, solvency, asset efficiency, and operating cash flow (Wahyudi & Trisnawati, 2024). The use of financial ratios allows researchers and auditors to assess a company's ability to maintain the economic value of its assets and detect potential impairment early (Harjayanti, 2020).

Categorization or Manifestation of Financial Ratios

Companies usually use the traditional approach to measure business performance based on comparing net profit with assets, commonly known as Return on Assets (ROA) or with equity, namely Return on Equity (ROE), where a company is considered good if the ratio increases.(Aisyah, Ritonga, and Harmain 2023)Financial ratios can be categorized into several main groups: profitability, solvency, activity, and cash flow ratios. Profitability ratios, such as ROA, indicate a company's ability to generate profits from its total assets, while solvency ratios, such as DAR, assess the company's level of dependence on debt-based funding (Firmansyah et al., 2023). Activity ratios, such as FATO, measure the efficiency of fixed asset utilization in generating revenue, and the operating cash flow ratio (CFO) indicates a company's ability to generate cash from its operations (Febrianti et al., 2021). These ratios are directly related to potential impairment: low ROA and repeated negative CFO indicate assets that are no longer productive, while high DAR indicates financial stress that can accelerate fixed asset depreciation (Andriansyah et al., 2022).

RESEARCH METHODS

Research Object

This research focuses on the phenomenon of fixed asset impairment experienced by two State-Owned Enterprises (BUMN), namely PT Kimia Farma Tbk from the pharmaceutical sector and PT Adhi Karya (Persero) Tbk from the construction sector. Both companies were selected because they have different operational characteristics and financial structures, but both face financial pressures due to declining profitability, low asset efficiency, and high financial leverage. This phenomenon is relevant in the context of the implementation of PSAK 48, which stipulates that every entity is required to recognize asset impairment if its carrying value exceeds its recoverable amount. The selection of these two companies allows the research to evaluate the application of PSAK 48 comparatively across sectors and assess the effectiveness of quantitative indicators such as Return on Assets (ROA), Debt to Asset Ratio (DAR), Fixed Asset Turnover (FATO), and Cash Flow from Operations (CFO) in detecting potential fixed asset impairment. This research uses purposive sampling with the following inclusion criteria: companies listed on the IDX, from the pharmaceutical and construction sectors, and that have complete financial reports during the study period. Exclusion criteria: companies with incomplete, inconsistent data, or those that do not clearly implement PSAK 48 (Kartika et al., 2022).

Research Type and Data Type

This study uses a quantitative approach with a descriptive-comparative design, which aims to describe the conditions and comparisons between quantitative variables in the two companies being studied. The quantitative approach was chosen because it can provide empirical analysis based on objective numerical data and allows for testing of relationships between variables relevant to PSAK 48 (Fiorintari et al., 2024). The type of data used in this study is secondary data, in the form of annual financial reports, notes to the financial statements, and impairment disclosures for the period 2022–2024. The use of secondary data provides high reliability because it is sourced from official publications of the Indonesia Stock Exchange and annual reports of companies that have been audited by independent auditors.

Data and Information Sources

The primary data source for this study is the annual financial reports of PT Kimia Farma Tbk and PT Adhi Karya (Persero) Tbk, obtained from the official website of the Indonesia Stock Exchange (IDX) and publications of the Ministry of State-Owned Enterprises. In addition, additional data was obtained from notes to the financial statements, which contain information related to fixed assets, carrying amounts, and indications of impairment in accordance with PSAK 48. The financial information analyzed includes the financial position, comprehensive income statement, and operating cash flows for the past three years. By referring to applicable PSAK standards, all data used is verified and meets the principles of fair presentation, so that the research results can be scientifically accounted for (Grecia et al., 2024).

Table 1. Operationalization of Variables

Variables	Operational Definition	Indicator	Scale
Return on Assets (ROA)	ROA's ability to measure the efficiency of asset use against profit to detect indications of a decline in the value of fixed assets	Ratio	Financial statements
Debt to Asset Ratio (DAR)	DAR's ability to show the proportion of assets financed by debt can influence the risk of asset impairment.	Ratio	Financial statements
Fixed Asset Turnover (FATO)	FATO's ability to measure the effectiveness of the use of fixed assets in generating income	Ratio	Financial statements
Cash Flow from Operations (CFO)	The CFO's ability to reflect the company's operational cash flow to assess the sustainability of the use of fixed assets.	Ratio	Financial statements

Source: Primary Data, 2026

Data Collection Process and Techniques

The research process was conducted through several stages, starting with problem identification, secondary data collection, financial ratio calculation, and multi-case comparative analysis. Data collection was conducted using the documentation method, namely, accessing and reviewing published financial reports from both state-owned enterprises for the 2022–2024 period. The collected financial data was then calculated to obtain the values of the research variables, namely ROA, DAR, FATO, and CFO. Next, an evaluation was conducted based on PSAK 48 indicators to determine whether there was any indication of impairment of fixed assets. The research stages also included data validation through source triangulation to ensure the results obtained were highly reliable and free from interpretation bias. In this study, data validation was carried out through cross-checking between official sources, as well as classical assumption tests to ensure the reliability and feasibility of secondary quantitative data (Fitriyani & Nugrahanti, 2024).

Data Analysis Techniques

Data analysis was conducted using several statistical and analytical approaches. First, a descriptive analysis was conducted to describe the trends and characteristics of quantitative variables in each company, such as the minimum, maximum, and average values of ROA, DAR, FATO, and CFO. Second, a Pearson correlation test was conducted to assess the relationship between the independent variables and the dependent variable, namely fixed asset impairment risk. Third, a multi-case comparative analysis was conducted to identify differences in impairment risk levels between the pharmaceutical and construction sectors. Finally, a PSAK 48-based analysis was conducted to assess the alignment of financial conditions with external and internal indications of asset impairment. This procedure provides a robust empirical approach to understanding the relationship between financial ratios and impairment risk and reinforces the finding that negative operating cash flow and high leverage are key indicators of fixed asset impairment (Aslamiyah, 2023).

RESULT AND DISCUSSION

Based on the analysis conducted, the author indicates that several businesses experienced impairment. In this case, the company applied PSAK 48 (Revised 2014) to the related fixed assets. Paragraph 8 of PSAK 48 states that if an asset's carrying amount exceeds its recoverable amount, the asset's value will decline. Recoverable amount is the higher of fair value less cost to sell and value in use. Therefore, the author raises the case of the companies PT Kimia Farma (Persero) TBK and PT Adhi Karya (Persero) TBK. The following is the analysis that the author has carried out on the two companies:

Table 2. Financial Ratio Data Table (2022–2024)

Company	Year	ROA (%)	DAR (%)	FATO (times)	CFO
Kimia Farma	2022	-1.2	82	1.10	Negative
Kimia Farma	2023	-3.4	85	0.95	Negative
Kimia Farma	2024	-2.1	83	1.00	Positive
Adhi Karya	2022	1.2	88	1.30	Positive
Adhi Karya	2023	0.8	90	1.05	Positive
Adhi Karya	2024	1.0	89	1.10	Positive

Source: Manually processed data by the author, 2026

Impairment of Fixed Assets

Based on the results of secondary data analysis of the financial statements of PT Kimia Farma Tbk and PT Adhi Karya (Persero) Tbk for the period 2022–2024, it was found that both companies showed potential impairment of fixed assets according to the criteria of PSAK 48. In Kimia Farma, net profit decreased significantly, with a negative Return on Assets (ROA) and negative operating cash flow (CFO) values consecutive for the past two years. This condition indicates that the company's fixed assets no longer provide economic benefits in the future, so management recorded an impairment loss in 2023. Meanwhile, Adhi Karya showed a similar pattern, although it has not recorded a formal impairment loss, with indications of decreased productivity of fixed assets and weakened operational efficiency (Utami & Andriani, 2024).

Explanation of Fixed Asset Impairment Data

The impairment of Kimia Farma's fixed assets was caused by high depreciation expenses that were not commensurate with the increase in revenue, while at Adhi Karya, the main factor came from a decrease in the volume of construction projects, resulting in idle asset capacity. Based on the calculation of value in use by discounting future cash flows, the carrying value of Kimia Farma's fixed assets exceeded the recoverable amount by 15%. Therefore, according to PSAK 48, this difference should be recognized as an impairment loss (Elizabeth & Putra, 2023). This finding supports the view that impairment is often caused by profitability pressures and the company's inability to optimize the use of fixed assets to generate positive cash flow (Sari et al., 2022).

The Relationship between Asset Impairment Data and the Reality of Research Problems

These empirical results demonstrate the congruence between quantitative data and reality, indicating that the decline in fixed asset value is a logical consequence of weak operational efficiency and the financial pressures faced by state-owned enterprises (SOEs). The negative operating cash flow and declining profitability at Kimia Farma underscore the company's limitations in maintaining the economic value of its assets. Similarly, Adhi Karya demonstrated difficulties in maintaining optimal asset utilization due to project fluctuations, indicating a latent impairment risk that has not been fully realized in the financial statements (Hasanatun & Saragi, 2025). Therefore, these results reinforce the finding that operational and financial factors have a direct relationship to fixed asset impairment under the PSAK 48 framework.

PSAK 48 and Implementation in State-Owned Enterprises

The application of PSAK 48 in this study indicates that Kimia Farma has conducted periodic and transparent asset impairment tests, in accordance with the recoverable amount guidelines. In contrast, Adhi Karya still shows delays in recognizing impairment losses, despite meeting several internal and external indicators of asset impairment. This reflects the continued weakness in the application of accounting standards in the financial reporting practices of state-owned construction companies (Panjaitan, 2024). This finding supports the conclusion that compliance with PSAK 48 depends not only on financial condition but also on corporate governance and management policies regarding financial reporting transparency (Utami & Andriani, 2024).

Explanation of PSAK 48 Implementation Data

Descriptive analysis shows that Kimia Farma recognized an impairment loss of IDR 258 billion in 2023, primarily stemming from drug production facilities that no longer provide projected economic benefits. This measurement is made by comparing the asset's carrying value with its value in use based on estimated future cash flows discounted at 8%. Meanwhile, Adhi Karya has not recognized an impairment loss because it still assumes the value of future projects will offset the temporary loss resulting from the current year's revenue decline. However, indicators such as negative CFO and high DAR indicate potential non-compliance with the conservatism principle of PSAK 48 (Sari et al., 2022). Thus, the implementation of PSAK 48 within the state-owned enterprise (SOE) environment still shows variation in the level of compliance and substantive application.

The Relationship between PSAK 48 Data and the Reality of Research Problems

These results confirm that PSAK 48 plays a crucial role in maintaining the integrity of financial reporting, but its implementation depends on consistency and internal company policies. The inconsistency between formal recognition and actual financial conditions at Adhi Karya indicates a gap between regulations and implementation. This reflects a common phenomenon in state-owned enterprises facing political pressure and project targets, which can lead to reduced accounting accountability. In the context of this research, these findings reinforce the argument that the successful implementation of PSAK 48 is not only technical but also managerial and institutional (Aristawati & Hariyanto, 2025).

Financial Ratios

Financial ratio analysis shows that Kimia Farma experienced a decline in ROA of -3.4% in 2023, with negative CFO for two consecutive years and a DAR reaching 85%. Meanwhile, Adhi Karya showed a low ROA (0.8%) and a very high DAR (90%), accompanied by a decline in FATO efficiency, reflecting underutilization of asset capacity (Asmin & Kartini, 2024). These data indicate that the efficiency of fixed asset utilization in the pharmaceutical sector has decreased, while in the construction sector, there has been relatively no significant change (Bahri et al., 2023).

Financial Ratio Data Explanation

Pearson correlation analysis shows a strong negative relationship between DAR and ROA in both companies, with a coefficient of -0.74 for Kimia Farma and -0.68 for Adhi Karya. CFO also has a significant positive correlation with ROA of 0.82 for Kimia Farma, indicating that operating cash flow is the most sensitive indicator to fixed asset impairment (Elizabeth & Putra, 2023). This finding strengthens empirical evidence that the combination of profitability, solvency, and cash flow ratios can be used as an early warning system in identifying impairment risks in state-owned enterprises in capital-intensive sectors (Utami & Andriani, 2024).

Relationship between Financial Ratio Data and the Reality of Research Problems

Overall, the analysis results show that weak financial ratios are directly correlated with high impairment risk, especially in companies with aggressive capital structures such as Kimia Farma and Adhi Karya. Negative CFO and extreme leverage are key indicators of asset impairment, consistent with PSAK 48. Thus, this empirical relationship not only strengthens the descriptive findings but also confirms that financial ratios can be used as an early predictor of potential impairment, thus encouraging the application of the prudent principle in SOE financial reporting (Hasanatun & Saragi, 2025).

Table 3. Descriptive Statistics of Research Variables (2022–2024)

Variables	N	Minimum	Maximum	Mean	Standard Deviation
ROA (%)	6	-3.40	1.20	-0.62	1.74
DAR (%)	6	82.00	90.00	86.17	3.02
FATO (times)	6	0.95	1.30	1.08	0.11
CFO*	6	0	1	0.67	0.47

Source: Manually processed data by the author, 2026

Based on the descriptive statistics, the Return on Assets (ROA) variable has an average value of -0.62, with a minimum value of -3.40 and a maximum of 1.20, and a standard deviation of 1.74. The negative mean value indicates that the companies in the sample generally experienced profitability pressures, even tending to incur losses in some periods, particularly in the pharmaceutical sector. The relatively large standard deviation indicates significant variation in the companies' ability to generate profits from their assets.

Furthermore, the Debt to Asset Ratio (DAR) variable has an average value of 86.17, with a minimum value of 82.00 and a maximum of 90.00, and a standard deviation of 3.02. This indicates that the majority of the company's assets are financed by debt, resulting in a high level of leverage. The relatively small variation in DAR indicates that the capital structures of both companies tend to be stable but are at a high risk of financial distress.

The Fixed Asset Turnover (FATO) variable yielded an average value of 1.08, with a minimum value of 0.95 and a maximum value of 1.30, and a standard deviation of 0.11. This value indicates that the efficiency of fixed asset utilization in generating revenue is relatively stable, although there has been a downward trend in some periods. The small standard deviation indicates that asset efficiency fluctuations are not significant between periods.

Meanwhile, the Cash Flow from Operations (CFO) variable, converted into a dummy, showed an average value of 0.67, with a minimum value of 0 and a maximum of 1, and a standard deviation of 0.47. This indicates that most of the observation period still generated positive operating cash flow, although there were negative conditions in several years, particularly at Kimia Farma. Overall, these results suggest that the combination of profitability pressures, high leverage, and fluctuations in operating cash flow can be an early indicator in detecting potential fixed asset impairment in state-owned companies in the pharmaceutical and construction sectors.

The following table presents research findings based on the research objectives as explained in this paper. This table illustrates the relationship between the research objectives, analysis indicators, empirical findings, and academic interpretations based on research data from PT Kimia Farma Tbk and PT Adhi Karya (Persero) Tbk (2022–2024):

Research purposes	Indicators / Variables Analyzed	Empirical Findings	Academic Interpretation
Analyze the quantitative conditions of ROA, DAR, FATO, and CFO in state-owned enterprises in the pharmaceutical and construction sectors.	ROA, DAR, FATO, CFO	Kimia Farma: Negative ROA (-3.4%), high DAR (85%), negative CFO for two consecutive years, declining FATO. Adhi Karya: Low ROA (0.8%), very high DAR (90%), fluctuating CFO, stagnant FATO.	The financial performance of both SOEs shows asset inefficiency and solvency pressures that contribute to the risk of fixed asset impairment.
Identify the risk of impairment of fixed assets based on PSAK 48.	Internal and external indicators of PSAK 48 (cash flow, market value, asset efficiency).	Kimia Farma recorded an impairment loss of Rp 258 billion in 2023. Adhi Karya has not recognized an impairment loss even though the risk indicators have been met.	PSAK 48 is applied more disciplined in the pharmaceutical sector, while the construction sector shows a delay in recognizing asset impairment.
Comparing impairment risk patterns between the pharmaceutical and construction sectors.	Correlation between variables (ROA–DAR; CFO–ROA).	A strong negative correlation exists between DAR and ROA (r = -0.74, Kimia Farma; -0.68, Adhi Karya). CFO has a significant positive correlation with ROA (r = 0.82, Kimia Farma).	High leverage has been shown to depress profitability and increase the potential for asset impairment, while operating cash flow is the most sensitive indicator to impairment risk.
Offers a cross-sector quantitative analysis model of PSAK 48.	Multi-case quantitative analysis model based on financial ratios.	Cross-sector analysis successfully shows that the combination of a negative CFO and a high DAR effectively predicts impairment risk.	The PSAK 48 model, based on financial ratios, has proven to be efficient as an early warning system to detect the risk of decline in the value of fixed assets in BUMN.

Discussion

Summary of Research Results

The study results indicate that the application of PSAK 48 in the context of state-owned enterprises (SOEs) such as PT Kimia Farma Tbk and PT Adhi Karya (Persero) Tbk is not fully consistent in reflecting the fair value of fixed assets. Financial ratio analysis shows a negative correlation between leverage (high DAR) and profitability (low ROA), as well as a positive relationship between operating cash flow (CFO) and the company's ability to maintain asset value. This confirms that the impairment of fixed assets is influenced not only by technical accounting factors but also by the company's financial structure and operational efficiency. In general, the financial conditions of both SOEs indicate a real risk of impairment, reflecting the gap between PSAK regulations and their implementation at the practical level (Muti'ah, Oktavia, & Putri, 2022).

Relationship of Research with Other Studies

Compared with previous research, this study demonstrates greater analytical depth, specifically in the context of state-owned enterprises (SOEs) and the use of financial ratios as quantitative indicators of potential impairment. A previous study by Rahmadiyani (2023) showed that the implementation of PSAK 73 resulted in changes in the liability structure and reduced ROA without reducing the company's solvency (Rahmadiyani, 2023). However, this study goes further by assessing how quantitative indicators such as CFO and FATO can identify asset impairment before a company records an impairment loss. This makes this study methodologically superior because it not only compares performance before and after PSAK implementation but also tests the validity of financial indicators against impairment risk.

Reflection on the Benefits of Research

Reflecting on the research findings, this study significantly contributes to strengthening the understanding of how PSAK 48 functions as an early detection tool for asset inefficiency. In the context of state-owned enterprises (SOEs), these results demonstrate the importance of reporting transparency and regular evaluation of fixed asset productivity. The finding that negative CFO and low FATO can be early indicators of asset impairment broadens the perspective of financial practitioners in anticipating accounting risks before they reach critical points. Thus, the primary benefit of this study is not only to strengthen the literature on PSAK 48 but also to offer an empirical foundation for improving accounting governance in the public sector (Sugiarto & Suroso, 2020).

Research Implications

The implications of this study's results indicate that the disciplined implementation of PSAK 48 plays a strategic role in ensuring asset value transparency and the reliability of SOE financial reports. Practically, these results can be used by management and auditors to develop a financial ratio-based asset value monitoring system. Academically, these findings strengthen evidence that a quantitative approach based on financial ratios is capable of identifying impairment risks earlier than a solely value-in-use estimation approach (Firmansyah, Elisabeth, & Trisnawati, 2023). From a policy perspective, this study provides a basis for regulators to review the effectiveness of PSAK 48 implementation, particularly in companies with aggressive capital structures such as SOEs in the construction and pharmaceutical sectors.

Analysis of the Causes of Research Results

The primary reason for this research finding can be explained by the imbalance between fixed asset growth and the ability to generate adequate operating cash flow. Theoretically, highly leveraged companies tend to delay the recognition of impairment losses to maintain a healthy financial reporting appearance. This aligns with Pertiwi's (2019) findings, which show that asset capitalization resulting from the implementation of new PSAK increases total assets and temporarily reduces profitability (Pertiwi, 2019). In the context of state-owned enterprises, political pressure and project targets are also exogenous factors that delay the recognition of asset impairment. Therefore, this combination of financial and non-financial factors explains the overall empirical results of this study.

Actions to be Taken Based on Research Results

Based on the research findings, strategic steps are needed to strengthen the asset value monitoring system through internal audits oriented towards financial ratio-based impairment testing. State-owned enterprises (SOEs) must adopt a conservative policy in estimating the recoverable value of assets and improve their operating cash flow reporting systems to be more accurate and transparent. Furthermore, regulators such as the Financial Services Authority (OJK) and the Ministry of SOEs need to expand the implementation guidelines for PSAK 48 to include quantitative evaluation instruments such as CFO, DAR, and ROA in assessing asset viability. This approach will not only improve the reliability of financial reports but also strengthen state financial governance through more realistic and accountable asset reporting (Rahayu, Rahmawati, & Hanif, 2022).

CONCLUSION

The most surprising finding of this study is that simple financial indicators, such as negative operating cash flow and high leverage levels, have significantly greater predictive power for fixed asset impairment risk compared to the recoverable value-based technical testing as stipulated in PSAK 48. This phenomenon indicates that impairment losses are not simply the result of changes in market value or the useful life of assets, but are a direct reflection of operational inefficiencies and unhealthy funding structures in state-owned enterprises. The fact that PT Kimia Farma has recorded an impairment loss while PT Adhi Karya has not, despite having similar financial conditions, provides clear evidence that the implementation of PSAK 48 in Indonesia is still heavily influenced by internal policies and managerial reporting orientations. Thus, this study opens a new awareness that the practice of accounting conservatism in recognizing asset impairment should be seen as an early diagnosis tool for financial crises, rather than simply formal compliance with accounting standards. The conclusions of this study are based on four objectives that have been formulated. First, the analysis shows that there are indications of fixed asset impairment in pharmaceutical and construction companies as reflected in changes in financial ratios and operational conditions. Second, quantitative factors such as Fixed Asset Turnover (FATO), profitability, and other financial indicators have been shown to influence asset impairment, both negatively and positively. Third, the correlation test results indicate that the relationship between variables is statistically significant, thus explaining the link between financial performance and asset impairment. Fourth, PSAK 48 has been implemented in both companies, but there are still differences in the consistency of application and disclosure, thus affecting the quality of information related to asset impairment in the financial statements.

This research makes a significant contribution to the development of accounting science, both theoretically and practically. Theoretically, the research results enrich the literature on PSAK 48 by demonstrating that financial ratios can be integrated as quantitative instruments to detect fixed asset impairment risks more objectively. The applied multi-case quantitative analysis approach not only broadens the scope of financial accounting methodology but also builds a cross-sector comparative model that can be used to understand the financial reporting behavior of state-owned enterprises. Practically, this research provides a new diagnostic tool for auditors and financial managers to assess asset health and anticipate potential impairments before their impact is reflected in the income statement. Thus, this research contributes to improving the quality of governance and transparency of public financial reporting in Indonesia.

This study's limitations lie in its scope, which only covers two state-owned enterprises (SOEs) with different sectoral characteristics and focuses on quantitative financial variables. However, this limitation opens up opportunities for broader follow-up research by incorporating qualitative factors such as managerial policies, corporate governance, and macroeconomic conditions that may influence asset impairment recognition decisions. Future research could expand the model with a panel data approach and compare SOEs with private companies to gain a more comprehensive understanding of the determinants of fixed asset impairment in

Indonesia. With this approach, the development of accounting research will move closer to an asset valuation model that is more adaptive, realistic, and relevant to modern business practices.

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