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ANALYSIS OF LIQUIDITY, ACTIVITY, AND SOLVENCY IN ASSESSING PT MITRABAHATERA SEGARA SEJATI TBK'S FINANCIAL STABILITY

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Abstract

This study looks at how liquidity, activity, and solvency relate to the financial health of PT Mitrabahtera Segara Sejati Tbk between 2020 and 2024. The research uses a quantitative descriptive approach with data from the company's annual financial reports, which have been converted into US dollars. To measure liquidity, we look at the Current Ratio, Quick Ratio, and Cash Ratio. For activity, we use Cash Turnover, Receivable Turnover, Inventory Turnover, Fixed Asset Turnover, and Total Asset Turnover. Solvency is measured using the Debt to Equity Ratio, Debt Ratio, Equity Ratio, and Times Interest Earned. The findings show that the company has strong liquidity and solvency, as seen in high current and cash ratios, low debt levels, and a solid capital structure. This means the company can easily pay its short-term and long-term bills. However, the activity ratios suggest that the company isn't using its assets efficiently and that cash, receivables, and inventory are moving slowly. These results show that even though the company is financially stable, it needs to improve how it runs its operations to make more profit and stay sustainable in the long run. In general, this study says that having good liquidity and solvency is key to keeping the company's finances strong, but making better use of assets is also very important for the company to grow.

Keywords: liquidity, activity, solvency, financial stability, quantitative analysis

Introduction

Financial stability is essential for keeping a business running smoothly, especially for logistics companies like PT Mitrabahtera Segara Sejati Tbk in the shipping industry. In a field that often has uncertain conditions, how well a company handles its cash flow, daily operations, and ability to pay debts plays a big role in determining its overall financial condition. Looking at how these three factors connect gives a clear understanding of how well the company uses its resources, how it manages short-term payments, and how strong it is when facing long-term financial challenges.

According to Hanafi and Halim (2016, as cited in Hamsyah et al., 2023), the liquidity ratio shows how well a company can pay its short-term debts using its short-term assets. When a company has a lot of liquidity, it means it is good at managing its cash, but too much liquidity might mean it is not using its assets in the best way. Bui et al. (2025) say that the activity ratio shows how well a company uses its assets to make money; the higher the asset turnover, the more efficient the company is in its operations. Kubenka and Myskova (2022) explain that the solvency ratio shows how much a company relies on debt to fund its assets, and it is important for predicting whether the company will stay stable or face bankruptcy.

Research shows that looking at a company's liquidity, activity, and solvency together is a good way to check how financially stable it is (Billios et al., 2024; Sethi & Mahadik, 2025). These three ratios not only show the company's current financial situation but also help predict if it might face financial problems in the future. For PT Mitrabahtera Segara Sejati Tbk, whose financial reports are in US dollars, this analysis helps explain how well the company is running its operations and how its money is structured, which in turn affects its overall financial health.

This study looks at how the liquidity ratio (X1), activity ratio (X2), and solvency ratio (Y) are connected when evaluating a company's financial stability. The findings from this research are expected to add real-world evidence to the theory of financial performance analysis and also help managers create long-term financial plans. Based on what experts and past studies have said, this research is very useful for making smart financial decisions by using signs of a company's financial health.

Theoretical Framework

Evaluating a company's financial stability is a key part of today's financial management because it shows how well the company can keep performing over a long time, stay out of financial trouble, and keep the confidence of investors and people who lend money. This stability can be checked by looking at different financial ratios like liquidity ratios, activity ratios, and solvency ratios. These ratios help determine how efficiently a company is running and how strong its finances are when dealing with changes in the economy.

According to Hanafi and Halim (2016, as cited in Hamsyah et al., 2023), the liquidity ratio (X1) is used to show how well a company can pay its short-term debts using its current assets. This ratio shows how secure the company is in the short term and how well it manages its cash. A higher liquidity ratio means the company is better at paying its bills, but if it's too high, it might mean the company has too many assets that aren't being used effectively. Meilany Angreni and others (2025) also found that having a good balance in liquidity is important for keeping the company's value because it shows the company can stay liquid without giving up chances for long-term growth.

Furthermore, the activity ratio (X2) shows how well a company uses its assets to make sales. Bui et al. (2025) say that good performance in activities like turning over inventory and collecting money from customers is a key sign of possible financial problems later on. This ratio checks how fast a company can turn its resources into income. A high activity ratio means the company is running smoothly and has strong financial health.

Meanwhile, the solvency ratio (Y), also called the leverage ratio, helps measure how much of a company's funding comes from debt versus its own money. Kubenka and Myskova (2022) say that solvency is important for checking financial stability because too much debt can lead to bankruptcy. This matches what Sethi and Mahadik (2025) found, which is that solvency has a big impact on how well a company can keep going,

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and companies with lower solvency are usually more stable financially. Billios et al. (2024) also point out that using several numbers like liquidity, activity, and solvency ratios together can strongly predict the chance of bankruptcy and long-term financial health.

From these studies, it seems that the connection between liquidity, activity, and solvency is very important when looking at how stable a company's finances are. However, there is still a gap in research because most past studies have looked at manufacturing, banking, and financial services sectors. There isn't much research on the logistics and shipping industries in Indonesia, especially for PT Mitrabahtera Segara Sejati Tbk. Also, earlier studies have mostly looked at each ratio on its own, but there hasn't been much analysis on how these ratios work together in the context of financial stability for logistics companies that use USD data.

Method

This study uses a quantitative descriptive method to describe and examine how liquidity, activity, and solvency ratios relate to the financial stability of PT Mitrabahtera Segara Sejati Tbk. This approach was selected because it offers a clear and measurable way to understand the company's financial health by using numerical data from official financial reports.

The information used in this study comes from secondary data collected from the yearly financial reports of PT Mitrabahtera Segara Sejati Tbk between 2020 and 2024. All the financial reports were downloaded from the company's official website at https://www.mbss.co.id. To make the data comparable with international standards and to present it more clearly, all the financial figures were converted into US dollars (USD) using the average exchange rate for each year of the study. The data includes reports on the company's financial position, income, and cash flow, which were then used to calculate different financial ratios that were the main focus of this study.

The study looked at three types of financial ratios: liquidity ratios, activity ratios, and solvency ratios. Liquidity ratios help figure out if a company can pay its bills that are due soon. To calculate this ratio, you look at:

1. **Liquidity ratio:**
   a. Current Ratio (CR)= $\frac{\text{Current Assets}}{\text{Current Liabilities}}$
   b. Quick Ratio (QR)= $\frac{\text{Current Assets} - \text{Inventories}}{\text{Current Liabilities}}$
   c. Cash Ratio = $\frac{\text{Cash} + \text{Cash Equivalents}}{\text{Current Liabilities}}$
2. **Activity Ratio:**
   a. Cash Turn Over (CTO) = $\frac{\text{Sales}}{\text{Cash + Marketable Securities}}$
   b. Receivable Turn Over (RTO) = $\frac{\text{Sales}}{\text{Accounts Receivable}}$

c. Inventory Turn Over (ITO) = $\frac{\text{Sales}}{\text{Inventory}}$

d. Fixed Asset Turn Over (FATO) = $\frac{\text{Sales}}{\text{Total Fixed Assets}}$

e. Total Asset Turn Over (TATO)= $\frac{\text{Sales}}{\text{Total Assets}}$

3. **Solvabilities ratio:**
   a. Debt to Equity Ratio (DER) = $\frac{\text{Totat Debt}}{\text{Total Equity}}$

   b. Debt Ratio (DR) = $\frac{\text{Total Debt}}{\text{Total Assets}}$

   c. Equity Ratio = $\frac{\text{Total Equity}}{\text{Total Assests}}$

   d. TIE Ratio = $\frac{\text{EBIT}}{\text{Interest Expense}}$

Financial data that was changed into USD was studied using a quantitative descriptive method. This study looks at how things changed and how different factors are connected during the years 2020 to 2024. The goal is to explain how changes in a company's ability to manage cash and how well it runs its operations can influence its ability to stay financially strong. This helps show how stable PT Mitrabahtera Segara Sejati Tbk is when dealing with changes in the global economy.

Results

Table 1. Liquidity Ratio of PT Mitrabahtera Segara Sejati Tbk for 2020–2024

LIQUIDITY RATIOS		YEAR					
		2020	2021	2022	2023	2024	Average
Current Ratio (CR) (USD)	Current Assets	53.778.617	44.451.035	111.920.948	162.008.691	147.711.632	103.974.185
	Current Liabilities	25.504.185	5.991.075	15.863.508	12.478.600	11.870.448	14.341.563
		210,86%	741,95%	705,52%	1298,29%	1244,36%	724,99%
Quick Ratio (QR) (USD)	Current Assets-Inventories	51.155.445	41.203.937	109.393.818	159.778.164	146.364.631	101.579.199
	Current Liabilities	25.504.185	5.991.075	15.863.508	12.478.600	11.870.448	14.341.563
		200,58%	687,76%	689,59%	1280,42%	1233,02%	708,29%
Cash Ratio (USD)	Cash + Cash Equivalent	35.190.214	27.240.958	100.692.087	148.314.940	134.966.375	89.280.915
	Current Liabilities	25.504.185	5.991.075	15.863.508	12.478.600	11.870.448	14.341.563
		137,98%	454,69%	634,74%	1188,55%	1136,99%	622,53%

The Current Ratio went up from 210.86% in 2020 to 1,244.36% in 2024, showing the company can easily pay its short-term debts. The Quick Ratio also increased from 200.58% to 1,233.02%, with an average of 708.29%, meaning the company has strong liquidity even without using inventory. The Cash Ratio rose from 137.98% to 1,136.99%, averaging 622.53%, which shows the company has a very strong cash position. Overall, the company's ability to manage its short-term finances is very good and consistent.

Table 2. Activity Ratio of PT Mitrabahtera Segara Sejati Tbk for 2020–2024

ACTIVITY RATIOS		YEAR					
		2021	2022	2023	2024	2025	Average
Cash Turn Over (CTO) (USD)	Sales	-12.930	-6.098	-	-	-	-9.514
	Cash+ Marketable Securities	35.190.214	27.240.958	100.692.087	148.314.940	134.966.375	31.215.586
		-0,04%	-0,02%	0,00%	0,00%	0,00%	-0,03%
Receivable Turn Over (RTO) (USD)	Sales	-12.930	-6.098	-	-	-	-9.514
	Account Receivable	12.702.337	11.376.412	7.688.712	10.270.535	8.940.251	10.195.649
		-0,10%	-0,05%	0,00%	0,00%	0,00%	-0,08%
Inventory Turn Over (ITO) (USD)	Sales	-12.930	-6.098	-	-	-	-9.514
	Inventory	2.623.172	3.247.098	2.527.130	2.230.527	1.347.001	2.394.986
		-0,49%	-0,19%	0,00%	0,00%	0,00%	-0,34%
Fixed Asset Turn Over (FATO) (USD)	Sales	-12.930	-6.098	-	-	-	-9.514
	Total Fixed Assets	141.080.443	133.188.050	99.072.924	85.059.420	99.828.539	111.645.875
		-0,01%	0,00%	0,00%	0,00%	0,00%	-0,01%
Total Asset Turn Over (TATO) (USD)	Sales	-12.930	-6.098	-	-	-	-9.514
	Total Assets	194.859.060	177.639.085	210.993.872	247.068.111	247.540.171	215.620.060
		-0,01%	0,00%	0,00%	0,00%	0,00%	-0,01%

The average Cash Turnover (-0.03%) and Receivable Turnover (-0.08%) show that cash and receivables are moving slowly. Inventory Turnover (-0.34%) means inventory isn't being sold fast enough. Fixed Asset Turnover and Total Asset Turnover (-0.01%) suggest that the company isn't using its assets well to make more money. Overall, the activity ratios are not very efficient, so there is a need to improve how operations are managed.

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Table 3. Solvability Ratio of PT Mitrabahtera Segara Sejati Tbk for 2020–2024

SOLVABILITY RATIOS		YEAR					
		2020	2021	2022	2023	2024	Average
Debt to Equity Ratio (DER) (USD)	Total Debt	38.053.795	8.532.100	24.885.243	36.253.325	27.694.183	27.083.729
	Total Equity	56.613.097	56.767.041	60.142.471	60.209.797	33.313.200	53.409.121
		67,22%	15,03%	41,38%	60,21%	83,13%	50,71%
Debt Ratio (DR) (USD)	Total Debt	38.053.795	8.532.100	24.885.243	36.253.325	27.694.183	27.083.729
	Total Assets	194.859.060	177.639.085	210.993.872	247.068.111	247.540.171	215.620.060
		19,53%	4,80%	11,79%	14,67%	11,19%	12,56%
Equity Ratio (USD)	Totatl Equity	56.613.097	56.767.041	60.142.471	60.209.797	33.313.200	53.409.121
	Total Assets	194.859.060	177.639.085	210.993.872	247.068.111	247.540.171	215.620.060
		29,05%	31,96%	28,50%	24,37%	13,46%	24,77%
TIE Ratio (USD)	EBIT	-7.355.912	6.918.020	20.415.687	13.082.648	11.819.480	8.975.985
	Interest Expense	693.441	348.016	499.795	3.522.800	6.407.919	2.294.394
		-1060,78%	1987,85%	4084,81%	371,37%	184,45%	391,21%

The average Debt to Equity Ratio of 50.71% shows a safe balance between debt and equity. The Debt Ratio is 12.56%, which means the company isn't relying too much on debt. The Equity Ratio is 24.77%, showing strong ownership capital. Times Interest Earned is 391.21%, meaning the company has a good ability to pay interest from its profits. All these ratios together suggest a healthy and well-managed capital structure.

Discussion

Table 4. Summary of Financial Ratios of PT Mitrabahtera Segara Sejati Tbk 2020–2024

Ratio Category	Indicator	Average (%)	Interpretation
Liquidity	Current Ratio	724.99	Excellent
	Quick Ratio	708.29	Excellent
	Cash Ratio	622.53	Excellent
Activity	Cash Turnover	-0.03	Inefficient
	Receivable Turnover	-0.08	Inefficient
	Inventory Turnover	-0.34	Low

Ratio Category	Indicator	Average (%)	Interpretation
	Fixed Asset Turnover	-0.01	Suboptimal
	Total Asset Turnover	-0.01	Suboptimal
Solvency	Debt to Equity Ratio	50.71	Good
	Debt Ratio	12.56	Excellent
	Equity Ratio	24.77	Stable
	Times Interest Earned	391.21	Very good

The analysis shows that the company has very good liquidity and solvency, meaning it can easily handle both short-term and long-term debts. However, its operational efficiency is low, which suggests that the company should work on using its assets more effectively to increase revenue. Because the company has strong liquidity, a solid capital structure, and low debt risk, it is seen as financially stable during the 2020–2024 period.

Conclusion

Based on the financial analysis of PT Mitrabahtera Segara Sejati Tbk from 2020 to 2024, the company's financial situation is mostly stable. The liquidity ratio shows that the company is in a good position to cover short-term expenses without running into cash problems. This suggests that the company is doing a good job of managing its cash and other short-term assets. However, the activity ratio shows that the company is not very efficient in its operations. This is because the cash, accounts receivable, and inventory are moving slowly, and the assets are not being used well to generate income. The solvency ratio indicates that the company has a strong financial structure with not too much debt and good profits that can cover interest payments.

Overall, the connection between liquidity (X1), activity (X2), and solvency (Y) shows that having high liquidity and solvency helps make the company financially stable. However, improving activity efficiency is needed to get the best financial results. So, PT Mitrabahtera Segara Sejati Tbk is considered a financially stable company, but there is still space to make its operations more effective to keep growing in a sustainable way.

References

Angreni, M., Tampubolon, G. L., Handayani, R., & Panggabean, F. Y. (2025). The Effect Of Liquidity, Profitability, And Solvency On Company Value. INFOKUM, 13(02), 251-263.

Billios, D., Seretidou, D., & Stavropoulos, A. (2024). The power of numerical indicators in predicting bankruptcy: a systematic review. Journal of Risk and Financial Management, 17(10), 433.

Bui, T. H., Truong, T. T. D., & Tran, T. P. T. (2025). Financial ratios as indicators in bankruptcy prediction: A comparative analysis of statistical and machine learning models.

Gami, E. R. P., Pakpahan, D. R., Hou, A., & Hecimovic, A. (2025). The Impact of Liquidity, Leverage, and Profitability Ratios on Financial Distress. Quantitative Economics and Management Studies, 6(4), 604-611.

Hamsyah, H., Latif, I. N., & Dewi, C. K. (2023). Cooperative Financial Performance Analysis of Liquidity, Solvency, Profitability, and Activity Ratios. Indonesian Journal of Sustainability Policy and Technology, 1(1), 30-45.

Kubenka, M., & Myskova, R. (2022). Implementation of standards into predictors of financial stability. Economic research-Ekonomska istraživanja, 35(1), 6884-6900.

PT Mitrabahtera Segara Sejati Tbk. (2020–2024). Annual financial reports. Retrieved from https://www.mbss.co.id

Sethi, S. R., & Mahadik, D. A. (2025). Forecasting financial distress for organizational sustainability: An empirical analysis. Sustainable Futures, 9, 100429.