Performance Analysis and Financial Projections of Shipping Companies

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Article Info	Abstract
	The level of competition in the sea transportation industry continues to experience increasing growth every year. This research aims to determine the development of the financial performance of Shipping Company and what the future condition of the company's finances will be, as a business strategy to face competitive competition. This research uses a descriptive quantitative approach by measuring the 2019-2023 financial statements using Net profit margin, Return on Assets, Earning Before Interest Tax Depreciation and Amortization and compound annual growth, and projecting financial conditions for the next 5 years, namely 2024-2028 based on assumptions. Data collection techniques use secondary sources and primary sources, namely interviews and documentation. Results of historical financial research (Common Size, Trend and CAGR) in 2019-2023. The company experienced fluctuating conditions for financial performance (NPM, ROA, EBITDA) in 2019-2023. The company was quite good with a medium Z-Score level > 1.1 and projected conditions The Company's finances for 2024-2028 have increased significantly each year.

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1. INTRODUCTION

In running a business, the company will face various problems during its operations in producing goods/services needed by the community and obtaining the greatest possible profit from the operation. Optimizing profits by managing production factors as effectively as possible. Maximizing profits is actually the goal for every company [1]. The company's goal of obtaining finances, whether profit or loss, can be seen in the financial report, which is a report prepared in accordance with accounting principles containing recorded information and data used by the company to show its condition and performance to the parties who need it. [2].

In assessing the company's business results, a financial performance assessment is carried out, which is an analysis carried out to assess the extent to which the company has complied with financial implementation regulation [3]. The purpose of financial analysis is to assess business performance, project company reports, see financial conditions, developments, and how the financial structure, cash flow, and cash flow of the organization are [4]. Measuring the Company's financial performance can also use calculations of financial ratios which are classified into liquidity ratios, profitability ratios, solvency ratios and activity ratios (Rochman & Pawenary, 2020). Good company financial performance can be achieved if it is supported by the management of the company's financial budgeting plan in a certain period.

Currently in the transportation industry, it was found that the transportation and warehousing business sector experienced significant growth of 15.93% as of May 5, 2023

in the first quarter of 2023 compared to the first quarter of 2022 [6]. Furthermore, based on data from the Ministry of Transportation of the Republic of Indonesia, the national sea transportation fleet experienced the largest growth in 2022 of 296.930%. The fleet experienced an average growth of 147%. The highest growth occurred in 2022, where the national shipping fleet experienced a growth of 687.5% in 2022 from 2021. This spike occurred due to the presence of a new shipping fleet in 2022. [7]. In the intense competition in the transportation industry, it has caused an increase in the shares of shipping issuers, so that it attracts investors to the financial performance of shipping, the outline of the shipping industry that experienced an increase in shares in the calculation year to date (ytd) including PT Rig Tenders Tbk (RIGS) jumped 14.37% to IDR 565 per share, while PT Pelita Samudera Shipping Tbk (PSSI) shares jumped 7.35% and PT Temas Tbk (TMAS) jumped 5.65% [8]

In facing increasingly tight competition from new companies and similar companies in the field of marine transportation, companies must manage their businesses with good management. An integrated management service system built by a company is one of the most important quality assurance systems [9]. Therefore, a financial performance analysis is needed to measure the extent to which the company's performance has developed and it is also necessary to prepare financial projections to provide an overview of the company's financial condition in the future to face economic uncertainty that may occur so that the company can maintain its business existence and remain superior in competition.

2. METHOD

In this study, the grand theory of management accounting is used, namely financial performance and financial projections. The type of research used is quantitative descriptive used to analyze data by describing or depicting data that has been collected as it is without intending to make conclusions that apply generally or generalizations (Sugiyono, 2022:206). The calculations used in the financial performance analysis use profitability ratios with net profit margin indicators, return on assets, and ebitda ratios and z-score level measurements. Furthermore, in the preparation of financial projections using historical assumptions (trend analysis, common size analysis and compound annual growth (CAGR)) and basic macroeconomic assumptions (gross domestic product, inflation, exchange rates, and loan interest rates). In the research data collection technique, the data sources used are secondary data and also primary data, secondary data in the form of financial report documents for 2019-2023, gross domestic product data obtained from the Central Statistics Agency, the International Monetary Fund (IMF), inflation data, exchange rate data and loan interest rate data from the Bank Indonesia (BI) website, and for primary data, namely the results of interviews with company management. In the data analysis process there are 6 stages with the following explanations:

1. The first stage is analyzing business activities by analyzing the company's market share, the type of company's products and services, and how the industry is reviewed.
2. The second stage, namely the process of historical financial analysis with indicators (Kasmir, 2022:91):
   - Trend analysis to determine the tendency or trend or direction of the financial position, whether it is increasing, decreasing or remaining the same (Kasmir, 2022:91), formula that can be used:

$$\text{Index Number} = \frac{\text{Comparsion Year}}{\text{Base Year}} \times 100\%$$

   - Common size analysis to determine changes in financial report items to determine the percentage of investment in each asset or liability, to determine the capital structure,

and to determine the composition of costs in relation to sales (Kasmir, 2022:91). Formulas that can be used for components of the statement of balance sheet (BS):

$$BS = \frac{\text{Asset components}}{\text{Total assets}} \times 100\%$$

Or use the following profit and loss report (P/L) component analysis formula:

$$P/L = \frac{\text{P/L Components}}{\text{Total Revenue}} \times 100\%$$

- Compound annual growth rate (CAGR) to determine the income level in the 2019-2023 period, using the following formula:

$$CAGR = \left(\left(\frac{Final\ Value}{Initial\ Value} \right)^{\frac{1}{Number\ of\ Years}} \right) - 1$$

3. The third stage, Financial Performance Analysis to assess current and past performance and the company's sustainability.
   - Net profit margin (NPM), to measure the level of efficiency of the company in generating net profit based on its total revenue. With the calculation formula (Kasmir, 2022:201):

   $$NPM = \frac{Earning\ After\ Interest\ Tax\ (EAT)}{Sales}$$

   - *Return On Asset (ROA), used to measure the extent to which a company's assets generate income. The formula used is as follows* (Kasmir, 2022:201):

   $$ROA \quad \frac{Earning\ After\ Interest\ Tax\ (EAT)}{Asset}$$

   - *Earning Before Interest Tax, Depreciation and Amortization (EBITDA),* used to measure business profit without considering interest, taxes and depreciation and amortization. The formula used is:

   $$EBITDA = \frac{(Nett\ Income + Interest + Tax + D\&A\ Expense)}{Total\ Sales}$$

   - The Z-Score used is the third model developed by Altman because the Shipping Company is included in the non-manufacturing private sector with the formula:

Z''-Score		
Z =	6,56 (X1)	Working capital / Total asset
	+ 3,26 (X2)	Retained earning / Total asset
	+ 6,72 (X3)	EBIT / Total asset
	+ 1,05 (X4)	Book value of equity / Book value of debt
Score	**Condition**	
> 2,60	Not bankrupt	
1,1 - 2,60	Grey area	
< 1,1	Bankrupt	

4. Stage four, Macroeconomic and Industrial Assumptions are used by considering future risks that may impact the company's internal economy, including:
   - Gross Domestic Product Value
   - Inflation Rate
   - Exchange Rate
   - Loan Interest
5. Stage five, forming assumptions, at this stage the author determines the assumptions used in compiling the financial projections.
   - *Assumption Revenue Estimation (Revenue E)*, can use the formula SEOJK.05/2020:

   $$Revenue\ E = \quad Porsi\ Assumption \times Revenue\ Aktual$$

   - *Cost of Goods Sold* (COGS), To calculate the COGS Estimation (COGS E) you can use the following formula:

   $$COGS\ E = \quad Porsi\ Assumption \times Total\ Revenue\ Assumption$$

- *Assumption Operating Expenditure* (OPEX), on capital expenditure expenditures based on trend analysis calculations on historical data or based on macroeconomic data.
6. Stage six, preparation of the 2024-2028 financial report projections including profit (loss) reports, financial position reports and cash flow reports.

3. RESULTS AND DISCUSSION

1. Macroeconomic Analysis

Based on the projection of Gross Domestic Product (GDP) at constant prices published by the International Monetary Fund (IMF), GDP growth during 2023 to 2026 with the highest growth predicted to occur in 2024, which is 6.06% with an average growth of 5.15%. Furthermore, regarding the inflation projection, the highest growth will occur in 2026 at 2.51% and inflation will decrease in 2028 to 1.15%.

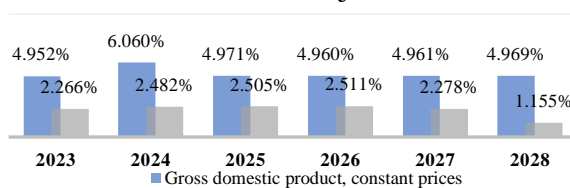Chart 1 GDP Inflation Projection 2023-2028

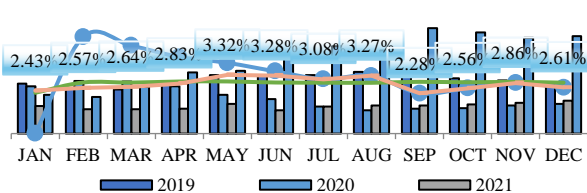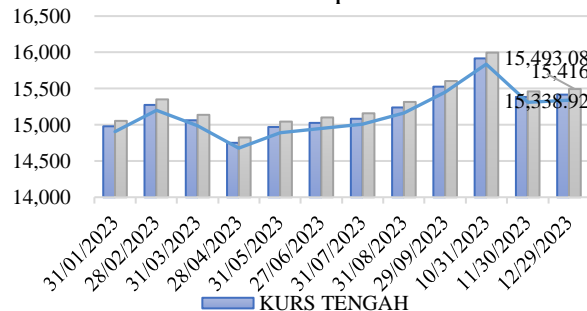

Chart 2 Historical Inflation 2019-2023

Chart 3 Rupiah Exchange Rate Against Dollar

Regarding the rupiah loan interest rates for working capital loans, investment loans, and consumer loans over the past 5 years, they have fluctuated. The interest rate for working capital loans provided to state-owned banks in 2023 was 8.93%, investment loans provided were 9.41%, and consumer loans provided were 9.27%.

Table 1 Loan Interest Rates

	KELOMPOK BANK DAN JENIS PINJAMAN	2019	2020	2021	2022	2023 Dec*
1	**Bank Persero**					
2	Pinjaman Modal Kerja Yang Diberikan	9,72	8,77	8,34	8,29	8,93
3	Pinjaman Investasi Yang Diberikan	9,75	8,87	8,49	8,72	9,41
4	Pinjaman Konsumsi Yang Diberikan	11,44	10,56	10,14	9,65	9,27

2. Historical Financial Performance Analysis

Profitability Ratio Analysis: The average NPM measurement result from 2019 to 2023 was 5% with quite profitable results for the company even though it fluctuated. The Company's return on assets ratio for the period December 31, 2023, on average from

2019 to 2023 was 13%, indicating that the invested capital fluctuated in generating profits. Based on the measurement results, the average EBITDA margin from 2019 to 2023 was 13%. This illustrates that the profits generated are positive with fair value.

Chart 4 Results of Profitability Ratio Analysis for 2019-2023
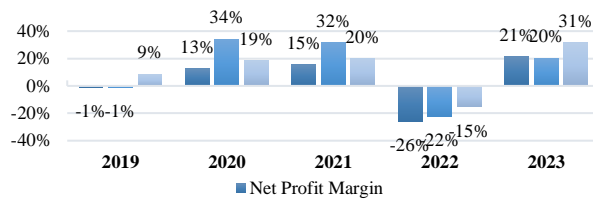
Z-Score: Measurement of the financial performance of Shipping Companies using the third Z-Score model, the results showed that the company's performance conditions in 2019 were at the start-up stage with a high risk of bankruptcy, namely below 1.1 because the ability of assets to generate profits was still inadequate, then in 2020 the company's performance conditions began to increase with a score of 2.08 due to an increase in working capital assets with medium conditions in the gray zone, namely between 1.1 and 2.6, as well as the conditions in 2021 which were at the settle stage with a medium risk of the gray zone. However, in 2022 the company was in a position towards the highest bankruptcy, namely with a score of 0.65 far below 1.1 in the red zone, this was because in 2022 was the last year after the crisis caused by the Covid-19 pandemic there was a decrease in profit before tax. And finally in 2023 the company's position returned to normal with a score of 1.0 but was still in the red zone, which means the company was able to get out of the high bankruptcy risk zone and return to normal, so the company was able to reduce the risks that caused the low profits obtained in 2022.
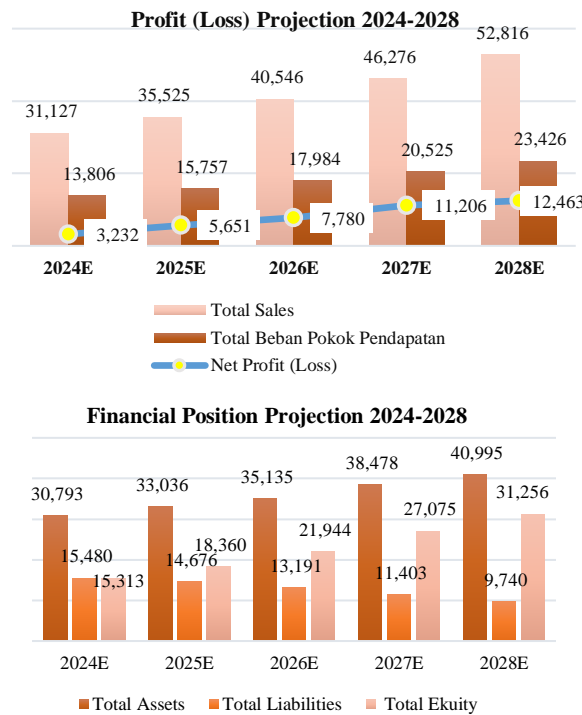
Chart 5 Results of Z-Score Analysis 2019-2023
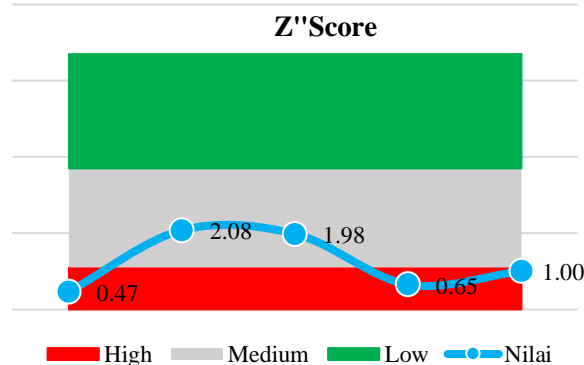

3. Financial Projection

Optimistic scenario:

Chart 6 Financial Report Projection 2024-2028 Optimistic Scenario

Profit (Loss) Projection 2024-2028

Financial Position Projection 2024-2028

Based on the optimistic category financial projection results data, the revenue projection results for 2024 to 2028 were obtained with an average revenue of IDR 41,258 million with a CAGR increase of 14% per year in line with the shipping industry target. The highest net profit is predicted to occur in 2028 reaching IDR 12,463 million with profit growth reaching 40% per year from 2024 to 2028. Regarding the projection of the company's asset value, it experienced a growth of 15% per year, the highest asset value was in 2028 amounting to IDR 40,995 million and for equity it is projected to experience a growth of 27% per year.

Chart 7 Z"-Score 2024-2028 Optimistic Scenario
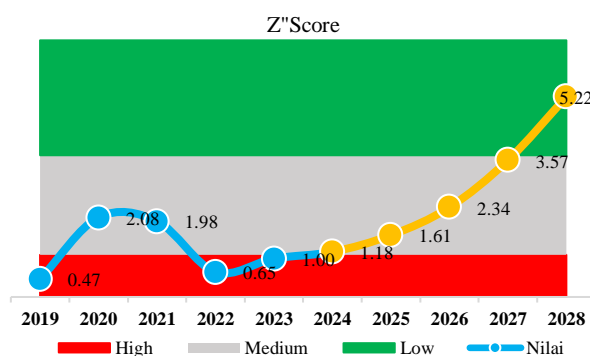
The direction of the z-score level movement continues to increase from 2024 to 2028 towards the green zone or low risk of bankruptcy zone, the company was able to reach the green zone in 2027 with a score of 3.57 above the medium value limit towards the green zone, and in 2028 the company was able to be in a very high green zone with a score of 5.22.

Moderate Scenario:

Chart 8 Financial Report 2024-2028 Moderate Scenario
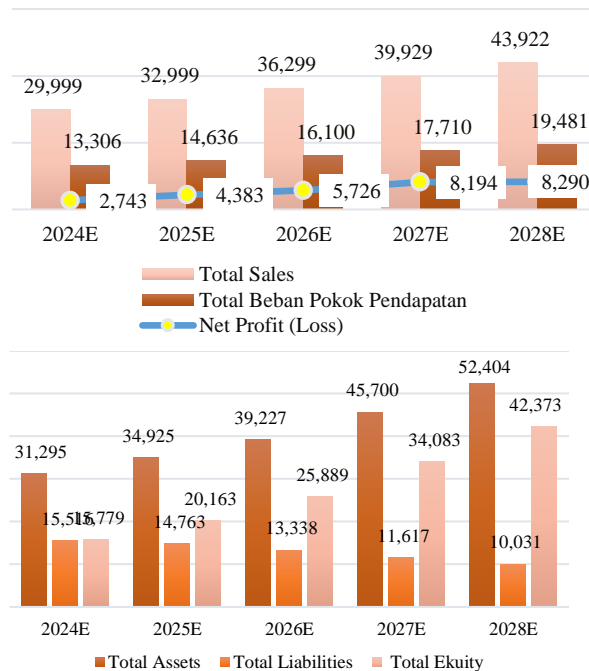
The nominal income in the moderate category projection from 2024 to 2028 obtained an average value of IDR 36,630 million with an increase of 10% CAGR per year in accordance with the company's management target. The profit projection with the moderate category also experienced the highest increase, namely in 2028 it was obtained at IDR 8,290 million with an increase of 32% per year in CAGR.

For the asset value, it is projected to experience annual growth of 11%, the highest growth is still in the fifth year of the 2028 projection of IDR 51,404 million, for the liability value there was a negative growth of 8% in other words there was a decrease per year. Furthermore, the highest equity was obtained in 2028 in line with the increase in assets and the decrease in liabilities, namely to IDR 42,373 million with a growth of 22%.

Chart 9 Z"-Score 2024-2028 Moderate Scenario
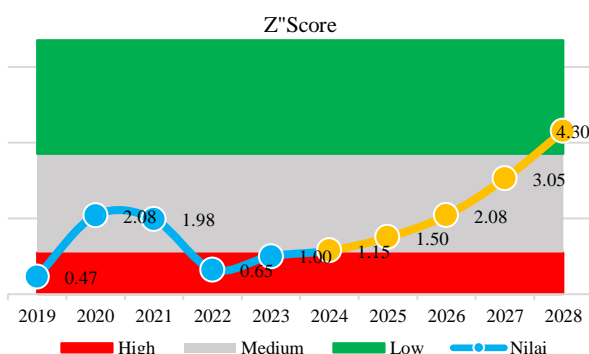
The score obtained from the moderate category is obtained by an annual increase in score in line with the increase in profit, the highest score is in 2028, the company can reach the green zone, namely with a condition of not going bankrupt with a recorded value of 4.30.

Conservative Scenario:

Chart 10 Financial Report 2024-2028 Conservative Scenario
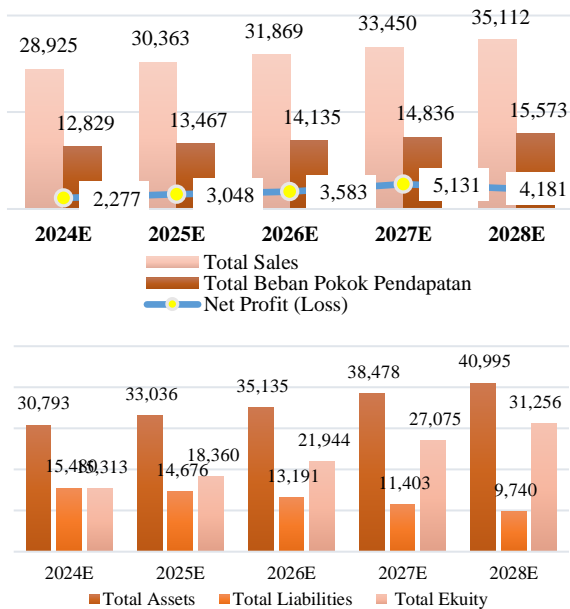
In the revenue projection from 2024 to 2028, an average nominal value of IDR 31,944 million was obtained with an annual increase of 5% CAGR in line with the projected gross domestic product growth rate. For profits obtained in the conservative category, the highest profit is predicted to occur in 2027 of IDR 5,131 million and in 2028 it will decrease to IDR 4,181 million with an average nominal value of IDR 3,644 million from 2024 to 2028 with an annual increase of 16% CAGR.

The total value of assets obtained from the conservative category was recorded to have grown by 6% per year with a CAGR of the highest asset acquisition in 2027 of IDR 40,995 million, for liabilities there was a negative decrease of 9% per year and equity experienced a growth of 15%, the highest equity value in 2027 of IDR 27,075 million.

Chart 11 Z"-Score 2024-2028 Conservative Scenario
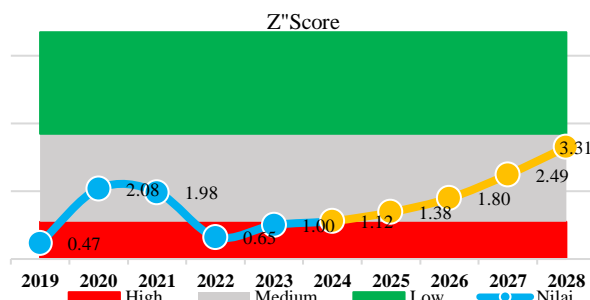
The z-score level obtained from the conservative category in 2024, which was 1.12, was still in a high state of bankruptcy, in 2025 it increased to 1.38, still in a gray condition, and in 2028 it became 3.31 in a non-bankrupt condition but still in the gray zone, not yet reaching the green zone.

4. CONCLUSION

The development of the Company's financial performance from 2019 to 2023 is still in quite good condition with an average positive profitability value of 5% from NPM, 13% from ROA and EBITDA Ratio. For the Z-Score analysis, a medium condition was obtained between high risk and low risk of bankruptcy in 2019 to 2023 with an average score of 1.24. Based on the measurement of the profitability ratio and Z-Score, it can be concluded that the Company's financial performance is in quite good condition but is vulnerable to risks that cause bankruptcy. The financial projection for 2024 to 2028 shows that the Company's

finances are predicted to experience an increase in profit per year. In the optimistic category, the average nominal net profit was obtained of IDR 8,066 million with a growth of 40% per year and this category was able to reach the green zone in the year starting from 2027 to 2028. Furthermore, for the moderate category, the average nominal net profit was obtained of IDR 5,867 million with a growth of 32%, the condition of the company in the moderate category was able to reach the green zone in 2028, and in the conservative category, the average nominal net profit was obtained of IDR 3,644 million with a growth of 16% per year. The financial condition of the company in the conservative category has not been able to reach the green zone and is still in the gray zone until 2028.

5. SUGGESTIONS

Further research can use other financial ratio measurement indicators to measure financial performance, such as liquidity ratios, solvency ratios, activity ratios or profitability ratios with other indicators, and can use other assumptions in preparing financial projections, can use all management assumptions, industry assumptions or macroeconomic assumptions as a whole in forming cost assumptions and income assumptions.

6. ACKNOWLEDGEMENTS

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