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# Financial Ratio Analysis and Health Level of PT Wijaya Karya (Persero) Tbk Based on Altman Z-Score

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**Abstract**

This study employs a quantitative descriptive approach to evaluate the financial performance and health of PT Wijaya Karya (Persero) Tbk. It involves analyzing the company's financial ratios, including profitability, liquidity, activity, and solvency ratios, using the financial statements available on the IDX website from 2020-2023. The company's health is assessed using the four-variable version of the Altman Z-Score method. The results indicate a declining trend in liquidity ratios, suggesting a reduced ability to meet short-term obligations. Fluctuations in solvency ratios imply increased risk or development through higher borrowing. Activity ratios reflect an overall increase, but with fluctuations in fixed asset utilization and collection efficiency. Profitability ratios demonstrate a downward trend over time. According to the Altman Z-Score analysis, the company faces a high risk of bankruptcy due to its vulnerable health level, necessitating immediate action to address this critical issue.

**Keywords: Liquidity Ratio, Solvability Ratio, Activity Ratio, Profitability Ratio and Altman Z-Score**

## 1. Introduction

Financial statements serve as comprehensive reports detailing a company's financial status and operational performance. These documents are pivotal for stakeholders in making informed decisions. The accurate portrayal of a company's financial standing and operational outcomes within these statements is considered a facet of corporate social responsibility towards both the public and capital markets (Jan, 2021). In holistically assessing a company's performance, a thorough analysis of its financial statements is essential (Handayani et al., 2021).

Financial statement analysis thoroughly examines information presented in financial statements, particularly the primary ones, to assess a company's value (Amel-Zadeh et al., 2020). Ratio analysis delves into the relationship between accounts in financial statements, comparing one account in the income statement or balance sheet to another. The interdependencies among financial statement accounts not only offer management or investors insights into the company's overall health but also furnish valuable information about the company's operational dynamics (Karthikeyan, 2021). Comparable financial reporting facilitates informed financial decision-making for investors. Comparability, a qualitative characteristic, aids users in discerning and interpreting similarities and differences among financial items and performance across companies (Martens et al., 2020).

PT Wijaya Karya (Persero) Tbk or WIKA is a highly esteemed and influential entity in Indonesia's building construction industry. With a rich heritage in infrastructure and property development, WIKA has been honored as The Most Outstanding Company in Indonesia in the Construction Sector in 2020. The company's total assets amounted to an impressive IDR 62.11 trillion, consolidating its position as the largest contractor in the country. WIKA has made significant contributions to various government projects, including toll roads and airports. Furthermore, WIKA maintains several specialized subsidiaries that encompass a wide range of construction fields.

PT Wijaya Karya (Persero) Tbk has encountered several recent challenges, notably a decline in net profit and an increase in debt. These factors have had an impact on the company's financial ratios, including the debt-to-equity ratio and net profit ratio. Investors commonly utilize these ratios to assess a company's financial stability and potential for future growth. Subpar financial ratios can erode investor confidence and influence the company's stock valuation. Consequently, companies must evaluate their operational management strategies and explore avenues to enhance efficiency, thereby elevating profit margins. A thorough analysis of financial statements can enable management to make well-informed decisions aimed at improving financial performance and reinstating investor confidence. This research presents an intriguing subject for in-depth analysis.

## 2. Theoretical Background

Every company whose shares are traded on the Indonesia Stock Exchange (IDX) must publish financial reports based on Financial Accounting Standards (SAK) and have been audited by independent auditors. One of the challenges faced by companies in the disclosure of financial statements to the public and the Capital Market Supervisory Agency (BAPEPAM) is the timeliness of auditors in finalizing their audit reports (Bahri & Amnia, 2020). Financial ratios are a commonly utilized tool in conducting audits. These ratios encompass liquidity, solvency, activity, and profitability. The analysis of financial ratios facilitates the evaluation of a company's current condition, enabling financial managers and other stakeholders to assess whether the company is in a sound financial position (Eskilani et al., 2019).

The representation of financial ratios is meaningful and unbiased regarding internal decisions and external conditions that can be measured quantitatively (Wibowo, 2018). Ratio analysis represents a method for presenting financial statement information by delineating the relationships among selected financial data. These associations are articulated in terms of percentages, levels, or simple proportions. Liquidity, activity, solvency, and profitability ratios are employed to evaluate the company's prospects and risks. The insights derived from these ratios significantly influence investor expectations of the company in the future (Indriaty et al., 2019).

The liquidity ratio serves as a metric for evaluating a company's ability to meet its short-term financial obligations. A company is considered to have strong liquidity if it can settle its short-term debts as they become due. A good corporate capacity is reflected by a high level of liquidity as this is used to pay off its short-term financial obligations (Dirman, 2020). Activity ratio analysis is used to evaluate the company's efficiency in using its assets to generate sales. This measure is divided into two categories, namely the long-term activity ratio and the short-term activity ratio (Devi et al., 2020).

A company's capacity to generate revenue concerning sales, total assets, and equity can be seen through analysis using profitability ratios. A metric to evaluate a company's ability to create profits based on its sales, assets, and equity is the main function of this ratio (Ningsih & Sari, 2019). The solvency ratio is a metric that assesses a company's capacity to meet its long-term financial obligations. It serves to gauge the degree to which a company's assets are underwritten by debt. This ratio is derived from a comparison of the sum of current liabilities and long-term debt to the total assets. Its purpose is to reveal the proportion of total assets that are financed through debt instruments (Jannah et al., 2021).

To address the limitations inherent in ratio analysis, an analytical tool known as Z-score analysis can be utilized. This tool simultaneously integrates multiple ratios to forecast the potential insolvency of a company. Z-score analysis, pioneered by Edward Altman, serves as an instrumental method for evaluating the probability of corporate insolvency and serves as a gauge of comprehensive financial performance (Utami & Hardana, 2022). The formula used involves a linear combination of four to five variables, where each ratio is assigned a weighted coefficient. This formula becomes data for stakeholders and data users. The z-score method is a diagnostic tool to evaluate financial health and soundness because it has a high level of accuracy, predicting bankruptcy with 94% accuracy from one year before the event to 72% from two years before the event (Swalih et al., 2021).

Altman developed a modified version of the analysis by incorporating four variables and formulated the Z-Score analysis model for diverse companies:

$$Z = 6{,}56X1 + 3{,}26X2 + 6{,}72X3 + 1{,}05X4$$

Where X1 is working capital to total assets, X2 is retained earnings to total assets, X3 is earnings before interest and taxes to total assets, and X4 is book value of equity to book value of debt. The Altman Z-Score health assessment levels are as follows:

Safe zone = 2,6 or higher

Gray area = 1,1 to 2,6

Risk zone = Below 1,1

Various studies have examined the role of financial ratios and the Altman Z-Score model in evaluating corporate financial health across different sectors. One study found that profitability and liquidity ratios, especially net profit to total assets, reflect internal financial efficiency and may influence investor perception through transparent disclosures (Wibowo, 2018). Profitability ratios had a direct positive but statistically insignificant effect on financial distress in the airport service company (Handayani et al., 2021). In the consumer goods sector, the Altman Z-Score helps evaluate bankruptcy risk through key financial indicators, serving as an early warning tool (Utami & Hardana, 2022). In the automotive industry, the Z-Score was shown to effectively identify financial soundness and early warning signals in Indian firms (Swalih et al., 2021). A more recent study compared the Altman Z-Score with the J-UK model in the manufacturing sector and found both models equally accurate in predicting financial distress, with a success rate of 78.1% (Rahmawati & Juliarto, 2024).

While these studies provide valuable insights, they primarily focus on manufacturing and service sectors. This research addresses a gap by examining the construction industry during the post-pandemic period, specifically PT Wijaya Karya (Persero) Tbk from 2020 to 2023.

Unlike previous studies that treated the Altman Z-Score as a final output, this study positions it as a core analytical component. By integrating traditional financial ratios with the Altman Z-Score model, the research provides a layered analysis that focuses specifically on the construction sector, capturing its unique financial characteristics and operational dynamics which remain underrepresented in prior studies. This theoretical foundation supports the analytical framework used in this study to assess the financial health of PT Wijaya Karya (Persero) Tbk.

## 3. Methodology

This study adopts a quantitative descriptive research approach utilizing numerical data to analyze the financial statements of PT Wijaya Karya (Persero) Tbk for the period spanning 2020 to 2023. PT Wijaya Karya (Persero) Tbk, renowned for its extensive history and esteemed standing in the business community, provides an intriguing focal point for investigating the determinants of enduring success. Data procurement involves the extraction of financial statements from the official website of the Indonesia Stock Exchange (IDX). The subsequent analysis encompasses the computation of liquidity ratios, solvency ratios, activity ratios, and profitability ratios, followed by an evaluation utilizing the Altman Z-Score method.

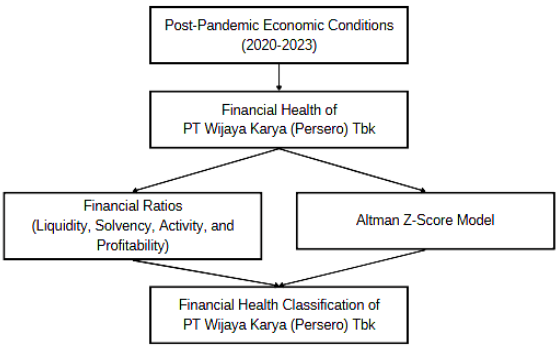


**Figure 1: Research Framework**

The Altman Z-Score is treated as an independent variable because it functions as an analytical tool that produces a predictive value regarding the company's financial distress risk. Although derived from financial ratios, the Z-Score has its own weighted formula and serves as a distinct predictor in this study.

The financial health classification serves as the dependent variable and represents the final output of the analysis. It is determined by the Altman Z Score classification into safe zone, gray area, or risk zone, which reflects the company's actual financial condition and provides the basis for interpreting its financial stability.

## 4. Findings/Result

The tables present the results of the financial ratio analysis and health measurement derived from the Altman Z-Score, accompanied by the corresponding interpretation findings.

TABLE I

LIQUIDITY RATIO

| Liquidity Ratio | 2020 | 2021 | 2022 | 2023 |
|---|---|---|---|---|
| Current Ratio | 1,09 | 1,01 | 1,10 | 0,80 |
| Quick Ratio | 0,85 | 0,68 | 0,73 | 0,48 |
| Cash Ratio | 0,34 | 0,19 | 0,16 | 0,08 |

The current ratio of 1.09 in 2020 reflects the company's ability to meet its short-term financial obligations. A ratio of 1.01 in 2021 depicts a dynamic balance between current assets and current liabilities, reflecting adequate liquidity but not enough safety margin. Conversely, the 1.10 ratio in 2022 illustrates a marginal improvement in liquidity, with current assets exceeding current liabilities. However, the 0.80 ratio in 2023 represents a significant decline, this result is an illustration that there is a shortage of current assets compared to current liabilities, this indication has the potential to hamper the company's ability to meet its short-term obligations.

The current ratio exceeding 1, as observed in 2020 and 2022, is generally regarded favorably as it signifies that the company possesses adequate current assets to satisfy its short-term obligations. Conversely, a current ratio below 1, as evident in 2023, is deemed unfavorable, suggesting potential insufficiency of current assets to meet short-term liabilities, thus indicating possible liquidity challenges.

The key metric when assessing a company's short-term financial stability for investors is to use the current ratio as a consideration. Sustained current ratios above 1 signify adept management of the company's liquidity and the capacity to fulfill short-term obligations. Conversely, a decline in the current ratio below 1, the pressure on the company's ability seen in 2023 to pay short-term obligations may impact investment evaluation.

In 2020, the quick ratio of 0.85 indicates that the company possesses IDR 0.85 in current assets (excluding inventory) for every IDR 1 in current liability. This suggests relatively favorable liquidity, albeit marginally below the preferred standard within the construction industry, which ideally should be higher. However, in 2021, a decline in the quick ratio to 0.68 signals a reduction in liquidity, with the company holding only IDR 0.68 in current assets for every IDR 1 in current liability. This may signify the onset of challenges in meeting short-term obligations without resorting to inventory sales. Subsequently, in 2022, a marginal uptick to 0.73 indicates a modest improvement in liquidity, yet it remains below the optimal threshold. This condition explains the company's position, which is still in a less-than-optimal position to fulfill its short-term obligations. Furthermore, in 2023, there is a substantial decline to 0.48 which is a critical warning sign. A decrease can be underlined that the company only has IDR 0.48 current assets per IDR 1 current liabilities, thereby implying a potentially large difficulty in settling short-term liabilities without utilizing inventory sales.

The reduction in the quick ratio indicates an increasing liquidity challenge. This could be attributed to a surge in short-term liabilities or a reduction in liquid assets. Such a situation could impede day-to-day operations and elevate the risk of insolvency if left unaddressed. Investors commonly regard the quick ratio as a pivotal gauge of a firm's financial well-being. The reduction in the quick ratio, especially if it is already low, can undermine investor confidence in the company's potential inability to pay off its short-term obligations without having to liquidate fixed assets or seek additional funding. Consequently, this may precipitate a decline in share price and an escalation in the cost of capital.

The quick ratio of PT Wijaya Karya (Persero) Tbk has exhibited a negative trajectory from 2020 to 2023. This downward trend signifies substantial liquidity challenges that could detrimentally impact the company's functions and stakeholder perceptions. Consequently, investors are likely to exercise heightened prudence and evaluate this liquidity risk before making further capital commitments to the organization.

In 2020, the company possessed cash equivalent to 34% of its total current liabilities, it can be interpreted that for every IDR 1 of current liabilities, the company has IDR 0.34 in cash. While this indicates a favorable position, it falls short of an ideal scenario, demonstrating that the company maintains a substantial portion of cash to cover its short-term liabilities. In 2021, the company's cash holdings amounted to 19% of its total current liabilities, translating to IDR 0.19 in cash for every IDR 1 of current liabilities. This decrease in liquidity indicates the company has less cash to meet its short-term obligations, raising concerns among investors. The company's cash position represents 16% of its total short-term liabilities in 2022, implying IDR 0.16 in cash per IDR 1 short-term liability.

The diminishing liquidity suggests potential challenges in meeting short-term obligations. By 2023, the company's cash reserves diminished to only 8% of its total current liabilities, equating to IDR 0.08 in cash for every IDR 1 of current liabilities. This substantial decrease indicates a high risk in fulfilling short-term obligations.

PT Wijaya Karya (Persero) Tbk's cash ratio showed a significant downward trend from 2020 to 2023. Investors may see this as a warning sign. A decrease in cash ratio indicates that the company has lower liquidity, which may affect the company's ability to meet its short-term obligations and may increase financial risk.

TABLE II

SOLVABILITY RATIO

| Solvability Ratio | 2020 | 2021 | 2022 | 2023 |
|---|---|---|---|---|
| Debt to Equity | 3,09 | 2,98 | 3,29 | 5,89 |
| Debt to Asset | 0,76 | 0,75 | 0,77 | 0,85 |

From 2020 to 2022, Debt to Equity (DER) ranged from 2.98 to 3.29. This indicates that the company has a fairly high debt compared to its equity. Although there was a slight decrease in 2021, overall, the DER remained high. The high use of corporate debt in funding its operations is indicated by the high level of DER. This condition can be positive if the debt is used for projects that generate high profits. However, it can also be a risk if the company fails to repay its debts. Meanwhile, in 2023, DER increased sharply to 5.89. This indicates a significant increase in the use of debt. This increase can be caused by various factors, such as massive expansion or to increase in operational costs that is not offset by an increase in equity. This very high DER value is a negative signal for investors as it indicates an increase in financial risk. This result can cause the company to have difficulty paying off debt if there is no adequate increase in revenue or equity.

If debt is used for projects that generate high revenues, this could increase the company's profitability in the long run. Investors may see high growth potential if the projects are successful. The high risk of corporate bankruptcy is seen from the high DER which reflects the company's inability to pay its debts. Investors may become concerned about the financial stability of the company and may demand higher returns to compensate for the risk. Investors will look at this number and consider whether the company can generate enough revenue to repay the debt. If not, they may see the company as a high-risk investment.

The company's debt to assets (DAR) remained relatively stable from 2020 to 2022, ranging from 0.75 to 0.77. In 2023, the DAR increased significantly to 0.85. A high DAR indicates that the company is using debt to fund its assets. This can be positive if the debt is used for investments that generate higher income than the cost of debt. A high DAR can also be a signal of higher financial risk. If the company is overly reliant on debt, it could indicate potential difficulties in meeting debt obligations, especially if revenues are volatile. Conservative investors see high DAR as a risk, as the company has large debt obligations compared to its assets. Aggressive investors, on the other hand, see the potential for growth if debt is used for expansion or profitable projects.

The growth from 0.76 to 0.85 has reflected the increased use of corporate debt in funding assets. This can be a positive signal if debt is used effectively to increase revenue, but it can also be a risk signal if the company is unable to manage its debt well. Investors need to consider the context and strategy of the company in using debt before making an investment decision.

TABLE III

ACTIVITY RATIO

| Activity Ratio | 2020 | 2021 | 2022 | 2023 |
|---|---|---|---|---|
| Total Asset Turnover | 0,24 | 0,26 | 0,29 | 0,34 |
| Fixed Asset Turnover | 3,20 | 2,02 | 2,59 | 2,78 |
| Average Age of Account Receivable | 375 | 178 | 278 | 186 |

Total asset turnover has experienced a gradual increase, this ratio shows a gradual increase from 0.24 in 2020 to 0.34 in 2023. This indicates that the company is increasingly efficient in using its assets to generate revenue. This increase is generally considered positive because it shows that the company can increase revenue with the assets it has.

Investor confidence can be increased from the growth of the total asset turnover ratio because it shows better operational efficiency. Investors tend to see companies that can improve their asset efficiency as more attractive investments. With an increased ratio, investors can expect higher earnings potential in the future, which can be reflected in a higher share price. The results of the total asset turnover ratio from 0.24 to 0.34 over four years reflect a positive trend for PT Wijaya Karya (Persero) Tbk. This reflects improved efficiency in asset utilization, which may increase investor confidence and future earnings potential.

In 2020, the company generated IDR 3.20 for every IDR 1 of fixed assets. This shows high efficiency in the use of fixed assets. In 2021, a significant decline compared to the previous year. The company only generated IDR 2.02 for every IDR 1 of fixed assets. This could indicate a decrease in efficiency or an increase in fixed assets without a comparable increase in revenue. In 2022, there was an improvement from 2021. The company generated IDR 2.59 for every IDR 1 of fixed assets. This indicates an improvement in the efficiency of the use of fixed assets. In 2023, a further improvement from 2022. The company generated IDR 2.78 for every IDR 1 of fixed assets. This shows a positive trend in the efficient use of fixed assets.

The increase in fixed asset turnover from 2021 to 2023 indicates an improvement in the efficiency of fixed asset utilization. This trend can be considered positive by investors as it shows that the company can increase revenue relative to its fixed assets. A sharp decline from 2020 to 2021 may be a concern for investors, as it indicates a significant drop in efficiency. Investors may want to understand the reasons behind this decline, such as large investments in fixed assets that have not generated the expected revenue.

Investors will look at fixed asset turnover as an indicator of the company's operational efficiency. An increase in fixed asset turnover from 2021 to 2023 suggests that the company has managed to improve the efficiency of its fixed asset utilization, which could be a positive signal for investors. However, the sharp decline from 2020 to 2021 may require further explanation from the company's management to convince investors that this decline is part of a long-term strategy to generate profits in the future. Overall, the upward trend in fixed asset turnover in recent years suggests that the company is on the right track in improving its operational efficiency, which could attract investors looking for companies with good growth potential.

In 2020, the average age of the accounts receivable ratio was 375 days. A high average age of receivables indicates that the company takes a long time to collect receivables from customers. This could be a sign of liquidity or efficiency problems in managing receivables. In 2021, it showed 178 days. The drastic decrease from 375 days to 178 days shows a significant improvement in the collection of receivables. This could be due to stricter credit policies or improved efficiency in the collection process. In 2022, it shows 278 days. The increase back to 278 days indicates a challenge in receivables collection. This could be due to difficult market conditions or internal issues in receivables management. In 2023, it shows 375 days. The decrease back to 186 days shows an improvement in receivables collection, although not as good as in 2021. The company showed efforts to improve the efficiency of receivables management.

In 2021 and 2023, a decrease in the average age of receivables in these years indicates an increase in liquidity and operational efficiency. The company shows that it can manage its receivables well and has a healthy cash flow which triggers increased investor trust. In 2020 and 2022, the high average age of receivables in these years could be a warning sign for investors. It indicates potential liquidity and operational efficiency issues that could affect the company's ability to meet its short-term obligations.

This trend can be a key parameter of a company's financial health, which is the main focus of investors. A decrease in the average age of receivables indicates that the company is more efficient in collecting receivables, which means better cash flow and lower credit risk. Conversely, an increase in the average age of receivables could raise concerns about the company's liquidity and receivables management.

TABLE IV

SOLVABILITY RATIO

| Solvability Ratio | 2020 | 2021 | 2022 | 2023 |
|---|---|---|---|---|
| Net Profit Margin | 0,02 | 0,01 | 0,00 | -0,35 |
| Return on Asset | 0,00 | 0,00 | 0,00 | -0,12 |
| Return on Equity | 0,05 | 0,04 | 0,00 | -1,20 |
| Gross Profit Margin | 0,09 | 0,10 | 0,10 | 0,08 |
| Operating Profit Margin | 0,02 | 0,01 | 0,01 | -0,34 |

In 2020, the company had a net profit margin of 2%. This means that for every IDR 1,000 of revenue, the company generated a net profit of IDR 20. Although small, this still shows profitability. In 2021, the net profit margin dropped to 1%. Interpreted that for every IDR 1,000 of revenue, the company only generates a net profit of IDR 10. This decrease shows a decline in profitability. Net profit margin reaches 0% in 2022 reflecting that the company does not generate net profit from its revenue. This indicates that all revenue is used to cover operating expenses and no profit is left. In 2023, the net profit margin became negative at -35%. This means that the company incurs a loss of IDR 350 for every IDR 1,000 of revenue. This loss indicates a serious problem in the company's profitability. Overall, the net profit margin ratio of PT Wijaya Karya (Persero) Tbk shows a significant downward trend from 2020 to 2023. From low profitability in 2020 and 2021 to no profit in 2022, and finally a big loss in 2023.

The company is facing major challenges in cost management and revenue enhancement from indications of declining and even losing net profit margins. This could be due to various factors such as increased operating costs, decreased demand, or management issues. Investors tend to see this trend as a warning sign. A negative net profit margin indicates that the company has not only failed to generate profits but also incurred significant losses. This can reduce investor confidence and lead to a drop in share price.

Return on assets (ROA) in 2020, 2021, and 2022 shows 0.00. A zero ROA indicates that it is not generating profit from its assets due to various factors such as a decrease in revenue, an increase in costs, or a combination of both. A zero ROA for three consecutive years may cause concern for investors as it indicates that the company is inefficient in managing its assets to generate profits. In 2023 it shows -0.12, indicating that the company is experiencing losses from its assets. This means that the company not only failed to generate profits but also incurred losses. A negative ROA is a very negative signal for investors. This reflects serious financial difficulties and inefficient use of its assets.

The ROA of PT Wijaya Karya (Persero) Tbk shows a very negative trend from 2020 to 2023. No profit was generated from assets for the first three years, and then the company made a loss in 2023. A consistently zero and then negative ROA indicates that the company may be facing serious operational and financial problems.

Return on Equity (ROE) in 2020 showed 0.05 or 5%. This shows that every IDR 1,000,000 of equity generated a profit of IDR 50,000. This is a positive sign, although not very high. In 2021 it showed 0.04 or 4%. A decrease from the previous year. Every IDR 1,000,000 of equity generates a profit of IDR 40,000. This indicates a decrease in efficiency in generating profits. In 2020 it shows 0.00 or 0%. There is no profit generated from equity. Every IDR 1,000,000 of equity generates no profit at all. This is a warning sign for investors because the company does not generate profits from its equity. In 2023 it shows -1.20 or -120%. Every IDR 1,000,000 of equity generates a loss of IDR 1,200,000. This shows that the company is making huge losses and using more equity than it generates.

The ROE which declined from 5% to 4%, then 0%, and finally -120% shows a very negative trend. This reflects a significant decline in the company's financial performance. Investors in 2020 and 2021, investors may still see potential, despite the decline. In 2020, investors began to worry because the company was not making a profit. In 2023, investors are very worried because the company is making huge losses. This could lead to a drop in share price and investor confidence. Overall, this ROE trend indicates that PT Wijaya Karya (Persero) Tbk has faced major challenges in recent years, which may negatively affect investor perceptions. Investors may be more cautious and seek more information about the cause of this decline before making an investment decision.

The company's gross profit margin (GPM) remained relatively stable at 10% for two years, namely in 2021 and 2022, but decreased from 9% in 2020 to 8% in 2023. This decline could indicate an increase in production costs or a decrease in selling prices that is not offset by cost reductions. Good operational efficiency and the ability to manage production costs are a reflection of a stable or increasing GPM. Stability at 10% for two years is a positive sign. A decline in GPM in 2023 to 8% could be a negative signal to investors, indicating potential problems in cost control or reduced price competitiveness. Investors tend to see GPM as an indicator of the company's financial health. A declining GPM may reduce investor confidence as it indicates a decline in operational efficiency. Conversely, a stable or increasing GPM can increase investor confidence.

In 2020, an operating profit margin of 2% indicates that the company generated an operating profit of IDR2 for every IDR100 of sales. In 2021 and 2022, the decrease to 1% indicates a decline in operational efficiency, where the company only generated IDR 1 for every IDR 100 of sales. In 2023, a negative operating profit margin of -34% indicates a significant operating loss. This means the company incurred a loss of IDR 34 for every IDR 100 of sales.

From 2020 to 2022, despite the declining margins, the company still generated an operating profit, albeit a small one. This could be considered negative as it indicates a decline in efficiency. Investors may see this downward trend as a warning sign and may question the company's management efficiency and operational strategy. As for 2023, negative margins are extremely negative for both the company and investors as they indicate large operating losses. Large operating losses can lead to a decline in investor confidence, a drop in share price, and difficulty in attracting new investment. PT Wijaya Karya (Persero) Tbk's operating profit margin shows a negative trend from 2020 to 2023, with a significant loss in 2023. This suggests that the company faces major challenges in operational efficiency and profitability, which could negatively impact investor perception and company value amidst market share.

TABLE V

ALTMAN Z-SCORE

| Z-Score | 2020 | 2021 | 2022 | 2023 |
|---|---|---|---|---|
| Working Capital to Total Assets (X1) | 0,10 | 0,09 | 0,09 | 0,10 |
| Retained Earnings to Total Assets (X2) | 0,06 | 0,00 | 0,00 | 0,00 |
| Earning Before Interest and Taxes to Total Assets (X3) | 0,00 | 0,00 | 0,00 | -0,12 |
| Book Value of Equity to Book Value of Debt (X4) | 2,29 | 1,16 | 0,82 | 0,53 |
| Four-variable version of the analysis | | | | |
| 6,56X1 | 0,63 | 0,62 | 0,57 | 0,65 |
| 3,26X2 | 0,21 | 0,00 | 0,00 | 0,00 |
| 6,72X3 | 0,03 | 0,02 | 0,02 | -0,79 |
| 1,05X4 | 2,40 | 1,22 | 0,86 | 0,56 |
| Altman Z-Score | 0,82 | 0,47 | 0,36 | 0,11 |

This consistent value of X1 indicates that the company's working capital was stable relative to its total assets during the period. In the Altman Z-Score formula, X1 is multiplied by a coefficient of 6.56, so although the contribution is positive, the value is quite small. Investors may see the stability in this ratio as a sign that the company can maintain sufficient working capital. However, a low value can also be cause for alarm, as low working capital may indicate potential liquidity issues.

The value of X2 in 2020 indicates that the company has quite good retained earnings compared to its total assets. Whereas in 2021 to 2023, the value of 0.00 indicates that the company has no retained earnings or very little retained earnings compared to its total assets. Investors may see this as a sign that the company is unable to generate enough profit to retain and reinvest. This could indicate problems in profitability and long-term sustainability.

The value of X3 indicates that the company did not generate operating profit relative to its total assets from 2020 to 2022. In 2023, the company experienced an operating loss relative to its total assets. Investors will most likely assess this result negatively as it indicates that the company was unable to generate sufficient operating profit or even incurred a loss. A negative value in 2023 may increase investors' concerns about the company's bankruptcy risk, especially if the overall Altman Z-Score value is in the distress zone (<1.81).

The X4 value in 2020 of 2.29 indicates the company is unlikely to go bankrupt because the value is above 1.8. In 2021, the value of 1.16 indicates the company is in the gray zone, indicating uncertainty of financial stability. In 2022 worth 0.82 indicates the company is at high risk of bankruptcy because the value is below 1.8. In 2023, the value of 0.53 indicates a higher risk of bankruptcy as the value continues to decline. Investors may see this downward trend as a warning sign of the company's deteriorating financial health. They will be more cautious and may consider reducing investments or seeking more information before making a decision.

## 5. Conclusions

Analysis of a company's financial statements using financial ratios and the Altman Z-Score provides a comprehensive picture of a company's financial health. Financial ratios such as liquidity, profitability, and solvency help identify strengths and weaknesses in a company's operations. Meanwhile, the Altman Z-Score, which combines several financial ratios, indicates bankruptcy risk. The company experienced several areas that needed to be improved in order to enhance financial performance while reducing the risk of bankruptcy.

From the analysis, it was found that the company has a low liquidity ratio, this suggests difficulty in meeting short-term obligations. The company also has difficulty generating sufficient profits to support growth and investment from this low level of profitability. In addition, a high level of solvency reflects the large debt burden borne by the company, which can jeopardize business continuity in the long run. The company's Altman Z-Score is in a zone that indicates a significant risk of bankruptcy, signaling the need for immediate action to improve financial conditions.

To improve, the company needs to focus on improving liquidity by managing cash flow more effectively and reducing outstanding receivables. Improving profitability can be achieved by optimizing operating costs and increasing production efficiency. In addition, the company should consider debt restructuring to reduce its financial burden and improve its solvency ratio. With these measures, the company can strengthen its financial position and reduce the risk of bankruptcy so that it can continue to grow in the future.

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