

Altman Z-Score Analysis in Predicting Financial Distress and Its Impact on Firm Value: Evidence from Property Sector Companies Listed on the Indonesia Stock Exchange (2022–2024)

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ABSTRACT

This study examines the effect of financial distress, measured by the Altman Z-Score, on firm value among property sector companies listed on the Indonesia Stock Exchange during 2022–2024. Liquidity, operating cash flow, and leverage are included as control variables to provide a more comprehensive understanding of the determinants of firm value. Using a quantitative approach, this study employs secondary data obtained from annual financial statements. The sample was selected through purposive sampling, resulting in 132 firm-year observations. Data were analyzed using multiple linear regression with IBM SPSS Statistics 27. The results indicate that the Altman Z-Score, liquidity, operating cash flow, and leverage have positive and significant effects on firm value proxied by Tobin's Q. These findings suggest that firms with stronger financial health, better short-term solvency, stable operating cash flows, and effective debt management tend to achieve higher market valuations. The study supports signaling theory and agency theory, highlighting the importance of financial information in investors' assessments of corporate prospects. Practically, the findings imply that managers should maintain financial health, improve operating cash flow quality, and optimize leverage management to enhance firm value and strengthen investor confidence.

Keywords: Financial Distress, Liquidity, Operating Cash Flow, Firm Value.

JEL Code: E44, F31, F37, G15

I. Introduction

The property sector plays a vital role in economic development through its contribution to housing provision, infrastructure development, and employment generation. However, the sector is highly influenced by macroeconomic conditions, interest rate fluctuations, and unstable market demand, resulting in greater financial risk and a higher likelihood of experiencing financial distress, particularly during market downturns. Research by Kusumawati & Haryanto (2022) indicates that property companies in Indonesia tend to face financial pressure when revenue growth becomes unstable and operating costs continue to increase. Therefore, understanding the financial condition of property firms is essential for stakeholders. Financial distress serves as an early indication of deteriorating financial health and may lead to more severe financial difficulties if not properly managed. Previous studies suggest that property companies are particularly vulnerable to financial pressure due to their substantial long-term financing requirements and capital-intensive projects. According to Suryani & Mariani (2022), firms that fail to maintain financial efficiency are more likely to enter financial distress sooner than those with effective financial management practices.



Consequently, assessing financial distress is important for evaluating a company's ability to sustain business continuity and maintain investor confidence, while early identification enables management to implement appropriate preventive measures.

The relationship between financial distress and firm value can be explained through signaling theory, which suggests that a company's financial condition provides signals to investors regarding its future prospects. Financial distress is generally perceived as a negative signal by the market, reducing investor confidence in the firm's ability to generate future returns. Arief et al. (2024) found that financial distress negatively affects firm value because investors tend to avoid companies with a high risk of bankruptcy and prefer firms with more stable financial conditions. Consequently, declining investor confidence may lead to lower stock prices and reduced firm value, as reflected in Tobin's Q and other valuation indicators. From the perspective of agency theory, financial distress may intensify conflicts of interest between management and shareholders, potentially diminishing firm value over the long term. During periods of financial difficulty, managers may adopt overly conservative or high-risk strategies that do not fully align with shareholder interests. Indriastuti (2021) demonstrated that ownership structure and corporate governance mechanisms can mitigate the risks associated with financial distress and contribute to maintaining firm value stability under financial pressure. Therefore, the relationship between financial distress and firm value should be examined from both signaling and agency perspectives to provide a more comprehensive understanding of its implications for managerial decision-making and corporate valuation.

Early detection of potential financial distress is crucial for business sustainability, as it provides management with sufficient time to implement corrective actions before financial conditions deteriorate further. Companies that can identify early signs of financial difficulties have greater opportunities to undertake debt restructuring, cost-efficiency measures, or seek alternative financing sources to improve their financial position. Anjarwati & Resmi (2023) emphasized that financial distress prediction models, such as the Altman Z-Score, can assist both companies and investors in anticipating bankruptcy risk and making more informed decisions. Early detection also benefits creditors by supporting more accurate assessments of a firm's creditworthiness and reducing default risk. Consequently, financial distress prediction provides significant value to various stakeholders within the corporate business environment. One of the most widely used models for assessing financial distress is the Altman Z-Score, which evaluates financial health through key indicators of profitability, solvency, liquidity, and operational efficiency. The model has been extensively validated in prior studies and has demonstrated considerable accuracy in predicting bankruptcy across different industries. Silviyani et al. (2024) reported that the Altman Z-Score remains a relevant early warning tool for identifying bankruptcy risk, particularly among firms experiencing substantial financing pressures. However, predictive outcomes may vary depending on firm characteristics and industry conditions. Therefore, the application of the Altman Z-Score should be adjusted to the specific research context and sample characteristics.

The Altman Z-Score model consists of five financial ratios that collectively assess a company's financial health. These ratios include working capital to total assets, which measures liquidity; retained earnings to total assets, which reflects cumulative profitability; earnings before interest and taxes to total assets, which indicates asset productivity; market value of equity to book value of total liabilities, which represents solvency; and sales to total assets, which measures asset utilization efficiency. Lumban Gaol et al. (2023) found that these components jointly provide an accurate assessment of the financial condition of property companies in Indonesia. A higher Z-Score indicates stronger financial health, whereas a lower score signals a greater risk of bankruptcy. Therefore, understanding each component of the Z-Score can help management identify areas requiring improvement to strengthen the company's financial position. The period from 2022 to 2024 is particularly relevant for analysis due to the significant financial challenges faced by property companies during this time. Changes in Bank Indonesia's benchmark interest rates and loan-to-value policies affected property demand and consumers' access to financing. Mustahgfiroh & Lisiantara (2022) reported that property firms unable to maintain adequate liquidity and a sound capital structure were more susceptible to financial distress, which could subsequently reduce firm value. These changing macroeconomic

conditions required property companies to adopt adaptive financial strategies to sustain performance and preserve investor confidence. Furthermore, increasing competition within the property sector intensified the need for innovation and financial efficiency.

Firm value is a critical aspect of financial analysis as it reflects investors' perceptions of a company's short- and long-term prospects. Measures such as Tobin's Q and Price-to-Book Value are commonly used to evaluate market responses to a firm's financial condition and future growth potential. Saputra et al. (2022) found that firm value is influenced by factors including profitability, firm size, and leverage. Therefore, firm value serves as a strategic indicator for assessing whether a company has favorable prospects or is experiencing significant financial pressure, while also assisting investors in making more informed investment decisions. Tobin's Q is considered an appropriate proxy for firm value because it integrates both market value and book value into a comprehensive measure. A Tobin's Q ratio greater than one indicates that the market values the company above its book value, reflecting positive expectations regarding future performance and growth opportunities. Dzahabiyya et al. (2020) argued that Tobin's Q is a relevant indicator of firm value because it captures management's effectiveness in utilizing corporate resources to create shareholder value. Conversely, a low Tobin's Q may signal financial difficulties, including potential financial distress that could threaten business continuity. Accordingly, the use of Tobin's Q enables a more accurate assessment of how the market evaluates the financial condition of property companies.

In addition to financial distress, several internal corporate factors may influence firm value and should be considered in a comprehensive financial analysis. These factors include profitability, which reflects a company's ability to generate earnings liquidity, which indicates its capacity to meet short-term obligations and capital structure, which represents the proportion of debt and equity financing. Sahara et al. (2022) found that profitability and capital structure significantly affect firm value, as they reflect operational efficiency and managerial financing decisions. Firms with higher profitability and an optimal capital structure generally exhibit greater firm value than those with weaker financial performance. Therefore, evaluating firm value requires consideration of multiple internal factors to provide a comprehensive view of a company's financial condition. Nevertheless, prior studies have reported inconsistent findings regarding the relationship between financial distress and firm value, with results varying across research samples and periods. Some studies suggest that financial distress reduces firm value because investors perceive it as a negative signal of managerial inefficiency in financial management. However, Venolika et al. (2022) found that financial distress does not always have a significant effect on firm value, as factors such as intellectual capital and financial reporting quality may influence market reactions to corporate conditions. These mixed findings indicate that the relationship between financial distress and firm value remains an important area for further investigation and provides an opportunity for this study to offer additional empirical evidence.

Operating cash flow is an important indicator of a company's ability to generate cash from its core business activities and may significantly influence firm value. Positive and stable operating cash flow reflects effective business operations and sufficient internal cash generation to support operational and investment activities without excessive reliance on external financing. Susilowati & Meidiyustiani (2023) found that operating cash flow positively affects the value of property companies, as investors perceive firms with strong cash flows as being better equipped to withstand financial pressures. In contrast, negative or unstable operating cash flow may hinder a company's ability to meet its financial obligations and increase the likelihood of financial distress. Therefore, operating cash flow represents an important control variable in examining the relationship between financial distress and firm value. In addition to financial distress, factors such as firm size, leverage, and profitability may also affect firm value and should be included in the research model to minimize analytical bias. Nafisah et al. (2023) identified profitability as a key determinant of firm value because investors tend to evaluate companies based on their ability to generate consistent earnings over time. Similarly, Kurniawan et al. (2022) noted that firm size is often regarded as an indicator of stability, as larger firms generally possess stronger resources and greater resilience in responding to financial pressures. Incorporating these control variables enables a more comprehensive assessment of the factors influencing firm value and contributes to more accurate and scientifically robust findings.

Leverage reflects the extent to which a company utilizes debt in its capital structure and may have a complex effect on firm value depending on its level of use. Optimal leverage can enhance firm value through tax benefits associated with interest expenses and improved returns on equity, whereas excessive leverage may increase bankruptcy risk and reduce firm value. Anggraeni & Banani (2021) found that leverage negatively affects firm value when debt levels exceed the optimal threshold, as investors perceive a higher risk of financial failure. In the property sector, high leverage is common due to the substantial capital requirements of property development projects. Therefore, effective leverage management is essential for maintaining firm value and mitigating the risk of financial distress. Although the property sector offers considerable growth potential, it also faces challenges that may affect financial health and firm value. These challenges include rising material costs, changing consumer preferences, and project uncertainties that require substantial financing and extended completion periods. Ningsih (2023) emphasized that property companies must maintain a sound financial structure to reduce the risk of declining firm value and losing investor and creditor confidence. This highlights the significant implications of financial distress for corporate operations and competitiveness. Firms that effectively manage financial distress risk are better positioned to sustain and enhance their value in an increasingly competitive market.

The relationship between financial distress and firm value remains an important area for further investigation due to the inconsistent findings reported in prior studies. For example, Silviani et al. (2024) found that financial distress does not significantly affect firm value, whereas Kusumawati & Haryanto (2022) reported a significant negative impact of financial distress on firm value. These mixed results highlight the need for additional research, particularly within the property sector, which possesses distinct characteristics in terms of capital structure and financing requirements. Examining property companies during the 2022–2024 period is expected to provide more specific empirical evidence regarding the relationship between financial distress and firm value and contribute to future studies on similar topics across different sectors and time periods. Emerging markets such as Indonesia differ substantially from developed capital markets in terms of information efficiency, disclosure quality, and investor behavior. Venolika et al. (2022) noted that emerging markets are generally characterized by higher information asymmetry, a greater dominance of individual investors, and less stringent disclosure regulations than those found in developed economies. These conditions often result in slower and less efficient market reactions to corporate financial information. Consistent with this view, Thanh et al. (2025) found evidence from the Vietnamese market that investor sentiment strongly influences stock returns due to the predominance of individual investors with limited fundamental analysis capabilities and a tendency to follow market behavior. These findings are particularly relevant to Indonesia, which shares similar characteristics with Vietnam as an emerging market in Southeast Asia.

Information asymmetry in emerging capital markets such as Indonesia creates challenges for rational and informed investment decision-making. Investors often face limited access to high-quality corporate information and may lack the expertise required to accurately interpret complex financial indicators. Zahro & Pujianto (2024) found that intensive trading activities by institutional and individual investors can increase information asymmetry in the short term due to differences in information access and processing capabilities. Similar conditions are likely present in Indonesia, where individual investors dominate market activity but may have limited ability to evaluate financial distress indicators. As a result, stock prices may not fully reflect a firm's fundamental condition, leading to market reactions that differ from those observed in more efficient capital markets. This study is important because it examines the relationship between financial distress and firm value within the context of the Indonesian capital market, which is generally classified as an emerging or weak-form efficient market. Unlike developed markets, where investors can rapidly process available information and financial distress is often found to significantly affect firm value, market reactions in Indonesia may differ due to variations in investor behavior and information-processing capabilities. Consequently, further investigation is needed to understand how financial distress influences firm value in this setting.

Furthermore, this study focuses on the 2022–2024 period, which represents the post-COVID-19 economic recovery phase and presents unique challenges and opportunities for the Indonesian property

sector. Accordingly, the research aims to examine the effect of financial distress, measured by the Altman Z-Score, on firm value, proxied by Tobin's Q, among property companies listed on the Indonesia Stock Exchange. The study also incorporates liquidity, operating cash flow, and leverage as control variables to provide a more comprehensive understanding of the determinants of firm value. The findings are expected to contribute to the academic literature and provide valuable insights for investors in evaluating the financial condition of Indonesian property firms.

II. Literature Review and Hypothesis Development

2.1. Signaling Theory

Signal theory describes how information owned by a company is used to reduce information asymmetry between internal and external parties. This theory was first introduced by Spence who stated that parties with more complete information could send signals to other parties. In a business context, management has more complete information than investors or creditors, so signals are an important mechanism in reducing uncertainty. Companies tend to convey positive signals through information such as good financial performance, dividend policies, and financial statements that show the company's stable prospects. Serena (2025) states that credible signals are easier to trust by the market because they reflect the true condition of the company. In addition to positive signals, there are also negative signals that arise from decreased performance, increased liability, or poor internal conditions. Signal theory also emphasizes the role of signal costs, where signals that require high costs tend to be more credible because only companies in good condition can afford them. Silviyani et al. (2024) show that the cost of signals affects the level of trust of external parties in the information submitted by the company. In addition, the quality of information such as clarity, accuracy, and audited financial statements also determine the effectiveness of signals in influencing market perception. Thus, signal theory is an important foundation in understanding how company information influences investor decisions through information asymmetry reduction mechanisms.

2.2. Agency Theory

Agency theory describes the relationship between the owner of the company (principal) and management (agent), where the owner authorizes the manager to manage the company. Differences in interests between the two parties can create agency problems because managers do not always act in accordance with the owner's main goal, which is to maximize the company's value. Serena (2025) states that the principal-agent relationship can cause information asymmetry that affects the quality of company decision-making. The problem of agency is also strengthened by the existence of information asymmetry, where management has more complete access to information than owners. This condition can encourage opportunistic behavior and decision-making that does not always benefit the owner. Silviyani et al. (2024) show that information asymmetry can cause management to hide certain information that has the potential to harm the owner. To reduce agency conflicts, a mechanism for supervision and alignment of interests is needed such as monitoring by the board of commissioners, ownership structures, performance-based incentives, and transparency in financial reporting. The mechanism aims to ensure that management acts in accordance with the interests of the owner and improves the quality of corporate governance. Thus, agency theory becomes an important basis for understanding the relationship between managerial behavior, ownership structures, and corporate decision-making.

2.3. Financial Distress

Financial distress is a condition when a company experiences financial stress that has an impact on the decline in its ability to fulfill obligations and run operations normally. This condition is generally

characterized by a decline in financial performance, a high debt burden, and a weakening of profitability. Kusumawati & Haryanto (2022) stated that financial distress can be identified through financial indicators that reflect the stability and ability of companies to maintain their business activities. Therefore, early detection of this condition is important to allow for appropriate corrective action. The Altman Z-Score model, which is commonly used in public companies, can be written through the following equation:

$$Z = 1,2X_1 + 1,4X_2 + 3,3X_3 + 0,6X_4 + 1,0X_5$$

With the following components:

- $X_1 = \frac{\text{Working Capital}}{\text{Total Assets}}$
- $X_2 = \frac{\text{Retained Earnings}}{\text{Total Assets}}$
- $X_3 = \frac{\text{EBIT}}{\text{Total Assets}}$
- $X_4 = \frac{\text{Market Value of Equity}}{\text{Total Liabilities}}$
- $X_5 = \frac{\text{Sales}}{\text{Total Assets}}$

The Z value is then used to group companies into safe, vulnerable, or high-risk bankruptcy categories. The lower the Z value, the higher the risk of financial distress that the company has. This model provides an advantage because it combines multiple financial ratios into one comprehensive indicator that is easy to use in evaluating a company's performance. One of the commonly used methods to measure financial distress is the Altman Z-Score developed by Edward Altman. This model uses multiple financial ratios that reflect the company's profitability, asset efficiency, and ability to meet long-term obligations. Silviani et al. (2024) show that the Altman Z-Score is effective in predicting potential bankruptcy in various industrial sectors. Financial distress not only reflects short-term problems, but can also affect business sustainability, including access to funding and investor confidence. Therefore, understanding financial distress is important in analyzing the company's financial health.

2.4. Value of the Firm

The value of the firm is a measure that reflects the market's assessment of the company's performance and prospects in creating welfare for shareholders. A company's value is often used as an indicator of investor confidence in the company's growth and sustainability potential. Kurniawan et al. (2022) stated that company value is one of the main measures in assessing a company's position in the eyes of investors. The value of a company is influenced by various factors, such as profitability, liquidity, capital structure, and ability to generate operating cash flow. Saputra et al. (2022) show that these financial factors can affect the value of the company depending on the effectiveness of the company's resource management. Therefore, company value is an important indicator in research that focuses on improving shareholder welfare. Tobin's equation Q can be mathematically written in the following formulation:

$$Q = \frac{\text{Market Value of Equity} + \text{Total Liabilities}}{\text{Total Assets}}$$

In this study, the value of a company is measured using Tobin's Q, which is a ratio that compares the market value of a company with the value of its assets. Ningsih (2023) explained that Tobin's Q is able to reflect market valuations more comprehensively because it includes elements of dynamic market value. A high Tobin's Q value indicates a positive market expectation of the company's prospects, while a low value indicates a poor market valuation. Thus, the value of the firm is an important variable to understand how the market responds to the company's financial condition and performance (Wibowo et al. 2025).

2.5. Liquidity

Liquidity is a company's ability to meet short-term obligations using its current assets. The level of liquidity reflects the company's ability to maintain smooth operations and manage short-term financial needs. Suryani & Mariani (2022) stated that liquidity is one of the early indicators of a company's financial health because it shows the company's ability to fulfill its current obligations. High liquidity indicates that the company has a good ability to deal with changes in business conditions and maintain cash flow stability. Saputra et al. (2022) found that liquidity levels can affect investor perceptions because they reflect a company's ability to maintain its operational activities. Conversely, low liquidity can indicate potential financial difficulties and lower investor confidence. The level of liquidity is influenced by the management of current assets, such as inventories and receivables, as well as the company's effectiveness in managing cash flow. Therefore, liquidity is one of the important ratios in financial analysis because it provides an overview of the company's ability to maintain short-term financial balance and maintain operational sustainability.

2.6. Operating Cash Flow

Operating cash flow is cash generated from the company's main activities and reflects the company's ability to carry out operations using internal resources. Ningsih (2023) stated that operating cash flow is an important indicator because it shows the company's ability to maintain its business activities without a high dependence on external funding. Positive and stable operating cash flow reflects the quality of revenue and healthier financial conditions. Nafisah et al. (2023) explained that operating cash flow stability can reduce financial risks because companies have better ability to meet their operational needs and financial obligations. On the other hand, weak operating cash flow can be an indication of pressure on the company's operational activities. The amount of operating cash flow is influenced by the effectiveness of receivables management, inventory, credit policy, and operational cost efficiency. In addition, investors also make operating cash flow one of the considerations in assessing the company's ability to pay debts, fund investments, and distribute dividends. Therefore, operating cash flow is an important indicator in the analysis of a company's performance and financial health (Sonnya & Wardhani, 2025).

2.7. Leverage

Leverage is a measure that shows the level of debt use in a company's funding structure. The use of debt can support business growth and expansion, but it also increases the financial obligations that must be fulfilled by the company. Zahro & Pujianto (2024) stated that leverage is an important indicator in assessing the level of risk of a company related to its ability to meet its obligations. High levels of leverage can increase interest expenses and pressure on cash flow, especially when companies face revenue instability. However, leverage can also provide benefits if debt is managed effectively to support the improvement of the company's performance. Nafisah et al. (2023) explained that optimal use of debt can have a positive impact on the company through increasing business results. In addition, leverage is one of the factors that investors pay attention to in assessing the risk and stability of the company. Saputra et al. (2022) found that high and uncontrolled levels of leverage can increase a company's vulnerability to financial stress. Therefore, leverage is often used in financial research to assess funding strategies, financial risks, and their impact on a company's performance and value.

III. Research Method

This study employs a quantitative approach with an associative research design to examine the effect of financial distress, proxied by the Altman Z-Score, on firm value in property sector companies listed on the Indonesia Stock Exchange (IDX) during the 2022–2024 period. A quantitative approach was selected because

the study utilizes numerical data analyzed through statistical procedures to test hypotheses and investigate relationships among variables Sugiyono (2019). The associative design aims to identify and explain the relationships and effects among the variables examined in the study (Arikunto, 2019). The study uses secondary data obtained from annual financial statements of property sector companies published on the official Indonesia Stock Exchange website (www.idx.co.id) and related corporate sources. The observation period covers fiscal years 2022 to 2024. Secondary data were selected because all research variables require quantitative financial information that can be objectively measured and statistically analyzed (Ghozali, 2021).

The population consists of all property sector companies listed on the Indonesia Stock Exchange during the research period. The sample was selected using purposive sampling based on several criteria, including companies that were consistently listed during 2022–2024, published complete financial statements, and provided all data required to calculate the research variables. Based on these criteria, 132 firm-year observations were obtained for analysis. The dependent variable in this study is firm value, measured using Tobin's Q. The primary independent variable is financial distress, measured using the Altman Z-Score model. In addition, liquidity, operating cash flow (OCF), and leverage measured by the debt to equity ratio (DER) are included as control variables to provide a more comprehensive analysis of factors affecting firm value. Data analysis was conducted using IBM SPSS Statistics 27. The analytical procedures included descriptive statistics, classical assumption tests consisting of normality, multicollinearity, heteroscedasticity, and autocorrelation tests, followed by multiple linear regression analysis. Hypothesis testing was performed using the t-test to examine partial effects, the F-test to assess simultaneous effects, and the coefficient of determination (R^2) to evaluate the explanatory power of the regression model.

IV. Results and Discussion

4.1. Analysis Result

a. Description Analysis Result

Tabel 1. Descriptive Analysis Result

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
Z-Score	132	-13.917	24.098	5.17064	4.223197
Liquidity	132	.026	11.155	2.42656	2.155171
OCF	132	10.499	28.725	22.58614	3.206732
DER	132	-76.751	3.305	-.03970	6.788351
Tobin's Q	132	.188	4.746	1.01230	.748278
Valid N (listwise)	132				

Descriptive analysis was carried out to provide an overview of the characteristics of the research data consisting of 132 observations of property sector companies during the 2022–2024 period. The results of descriptive statistics show that there is considerable variation in data across all research variables. The financial distress variable measured using the Altman Z-Score has an average of 5.17 with a standard deviation of 4.22, which indicates a difference in the level of financial health between companies. The liquidity variable has an average value of 2.43 and a standard deviation of 2.16, indicating the company's ability to meet relatively diverse short-term liabilities. Operating cash flow (OCF) showed an average of 22.59 with a standard deviation of 3.21, reflecting the positive and stable operating cash flow conditions in most of the sample companies. Meanwhile, the leverage proxied by the Debt to Equity Ratio (DER) has an average of -0.0397 with a standard deviation of 6.79, indicating a fairly high variation in the company's funding structure. The value of companies measured using Tobin's Q has an average of 1.012 and a standard deviation of 0.748, which indicates that in general the market values companies close to or slightly higher than their book value, although there are quite diverse valuation differences between companies.

b. Normality Test

Tabel 2. Result Normality Test

One-Sample Kolmogorov-Smirnov Test		
		Unstandardized Residual
N		132
Normal Parameters ^{a,b}	Mean	0.0000000
	Std. Deviation	.27291006
Most Extreme Differences	Absolute	.088
	Positive	.088
	Negative	-.064
Kolmogorov-Smirnov Z		1.009
Asymp. Sig. (2-tailed)		.260

Based on the results of the normality test using the One-Sample Kolmogorov-Smirnov Test, the residual mean value is 0.0000000 with a standard deviation of 0.27291006, which shows that the residual in the regression model is around zero. The test results showed a Kolmogorov-Smirnov Z value of 1.009 with an Asymp value. Sig. (2-tailed) is 0.260. Since the significance value is greater than the significance level of 0.05, it can be concluded that the residual is normally distributed. Thus, the regression model in this study has met the assumption of normality, so the data is suitable for regression analysis at the next stage.

c. Multicollinearity Test

Tabel 3. Result Multicollinearity Test

Coefficients ^a			
Model		Collinearity Statistics	
		Tolerance	VIF
1	Z-Score	.915	1.092
	Liquidity	.723	1.383
	OCF	.774	1.292
	DER	.961	1.041
a. Dependent Variable: Tobin's Q			

Based on the results of the multicollinearity test in the Coefficients table, it is known that all independent variables have a Tolerance value above 0.10 and a Variance Inflation Factor (VIF) value below 10. The Z-Score variable has a Tolerance value of 0.915 and a VIF of 1.092. The liquidity variable has a Tolerance value of 0.723 and a VIF of 1.383. Furthermore, the OCF variable showed a Tolerance value of 0.774 and VIF of 1.292, while the DER variable had a Tolerance value of 0.961 and VIF of 1.041

d. Heteroscedasticity Test

Tabel 4. Result Heteroscedasticity Test

Coefficients ^a					
Model		Unstandardized Coefficients		t	Sig.
		B	Std. Error		
1	(Constant)	.311	.103	3.220	.002
	Z-Score	-.011	.029	-.387	.700
	Liquidity	.039	.037	1.053	.294
	OCF	-.084	.075	-1.125	.263
	DER	-.057	.036	-1.571	.119
a. Dependent Variable: ABS_RES					

The results of the heteroscedasticity test showed that all independent variables had a significance value above 0.05, namely the Altman Z-Score of 0.700, liquidity of 0.294, operating cash flow of 0.263, and leverage (DER) of 0.119. These findings suggest that the regression model does not experience heteroscedasticity problems because residual variance is constant. Thus, the assumption of homogeneous heteroscedasticity has been fulfilled so that the regression model can be used for further testing and produce efficient and unbiased coefficient estimation.

e. Autocorrelation Test

Tabel 5. Result Autocorrelation Test

Model Summary^b					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.582 ^a	.338	.318	.27717	1.831
a. Predictors: (Constant), Z-Score, Liquidity, OCF, DER					
b. Dependent Variable: Tobin's Q					

The results of the autocorrelation test using the Durbin-Watson method produced a value of 1.831. The value is between the upper limit (dU) of 1.78 and the value of 4-dU of 2.22, thus meeting the criteria of autocorrelation freedom. These findings suggest that the residuals in the regression model have no correlation between observation periods. Thus, the classical assumption of autocorrelation has been fulfilled and the regression model is considered feasible for use in further analysis.

f. Multiple Linear Regression Analysis

Tabel 6. Result Multiple Linear Regression Analysis

Coefficients^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-.149	.159		-.937	.350
	Z-Score	.095	.045	.158	2.089	.039
	Liquidity	.201	.058	.297	3.500	.001
	OCF	.304	.116	.216	2.633	.010
	DER	.183	.056	.241	3.269	.001
a. Dependent Variable: Tobin's Q						

The results of multiple linear regression analysis showed that the variables Altman Z-Score, liquidity, operating cash flow (OCF), and leverage (DER) had a positive influence on the value of the company proxied with Tobin's Q. A constant value of -0.149 indicates that when all independent variables are of constant value, the value of the company is estimated to be -0.149. However, the constant is not statistically significant because it has a significance value of 0.350 (>0.05). Partially, the Altman Z-Score has a coefficient of 0.095 with a significance value of 0.039 (<0.05), which indicates that the improvement of the company's financial health has a positive and significant effect on the company's value. Liquidity has a coefficient of 0.201 with a significance value of 0.001 (<0.05), which indicates that the company's ability to meet short-term obligations has also increased the company's value. Furthermore, the operating cash flow (OCF) shows a coefficient of 0.304 with a significance value of 0.010 (<0.05), which means that the better the company's ability to generate cash from operational activities, the higher the company's value provided by the market. In addition, the leverage measured using DER has a coefficient of 0.183 with a significance value of 0.001 (<0.05), which indicates a positive and significant influence on the company's value. These findings indicate that all

independent variables in the model contributed positively to the increase in the company's value during the study period.

g. Hypothesis Test Result (t-Test)

Tabel 7. Result t Test

Coefficients^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-.149	.159		-.937	.350
	Z-Score	.095	.045	.158	2.089	.039
	Liquidity	.201	.058	.297	3.500	.001
	OCF	.304	.116	.216	2.633	.010
	DER	.183	.056	.241	3.269	.001
a. Dependent Variable: Tobin's Q						

Based on the results of the t-test in the coefficient table, it can be known the influence of each independent variable on the dependent variable, namely Tobins Q. The Z-Score variable has a coefficient value of 0.095, a t-value of 2.089, and a significance value of 0.039. Because the significance value is less than 0.05, the Z-Score has a positive and significant effect on Tobins Q. This means that the higher the Z-Score value, the Tobins Q value tends to increase. The Liquidity variable has a coefficient value of 0.201, a t-value of 3.500, and a significance value of 0.001. The significance value is smaller than 0.05, so that Liquidity has a positive and significant effect on Tobins Q. OCF variables have a coefficient value of 0.304, a t-value of 2.633, and a significance value of 0.010. Because the significance value is below 0.05, the OCF has a positive and significant effect on Tobins Q. The DER variable has a coefficient value of 0.183, a t-value of 3.269, and a significance value of 0.001. Significance values smaller than 0.05 indicate that DER has a positive and significant effect on Tobins Q.

h. Hypothesis Test Result (F-Test)

Tabel 8. Result F Test

ANOVA^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	4.990	4	1.247	16.238	.000 ^b
	Residual	9.757	127	.077		
	Total	14.747	131			
a. Dependent Variable: Tobin's Q						

Based on the results of the F test, an F value of 16.238 was obtained with a significance value of 0.000. Because the significance value is $0.000 < 0.05$, it can be concluded that X1 Z-Score, X2 Liquidity, X3 OCF, and X4 DER simultaneously have a significant effect on Tobins Q.

i. Result of the Coefficient of Determination

Tabel 7. Result Coefficient of Determination

Model Summary^b				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.582 ^a	.338	.318	.27717
a. Predictors: (Constant), Z-Score, Liquidity, OCF, DER				
b. Dependent Variable: Tobin's Q				

Based on the results of the determination coefficient test, the Adjusted R Square value was obtained of 0.318. This value shows that X1 Z-Score, X2 Liquidity, X3 OCF, and X4 DER are able to explain the variation in changes in Tobins Q, by 31.8%. Thus, the magnitude of the influence of the four independent variables on Tobins Q is 31.8%. Meanwhile, the remaining 68.2% was influenced by other variables outside this research model.

4.2. Discussion

Based on the results of the t-test, the Altman Z-Score variable has a significance value of 0.039 with a regression coefficient of 0.095. These results show that the Altman Z-Score has a positive and significant effect on the company's value. Thus, the research hypothesis is accepted, which means that financial distress conditions proxied through Z-Score have the ability to predict the value of the company. Conceptually, the higher the Z-Score, the lower the risk of financial distress and the healthier financial condition of the company. This is a positive indicator for investors, thus encouraging an increase in market valuation of the company. On the other hand, a low Z-Score value indicates a higher risk of financial distress, so market perception of the company tends to decline. Thus, it can be concluded that a company's financial health, as measured through the Altman Z-Score, plays an important role in determining the company's value. The better the financial condition reflected in the high value of the Z-Score, the higher the value of the company proxied through Tobins Q.

V. Conclusion

This study aims to analyze the influence of the Altman Z-Score, liquidity, operating cash flow (CFO), and leverage (DER) on the value of companies proxied with Tobin's Q in property sector companies listed on the Indonesia Stock Exchange for the 2022–2024 period. The results of the study show that all of these variables have a positive and significant effect on the company's value. These findings indicate that sound financial conditions, ability to meet short-term liabilities, strong operating cash flows, and effective debt management are important factors in increasing the company's value and shaping investors' positive perception of the company's prospects. Theoretically, the results of this study support signal theory and agency theory which explains that corporate financial information is the basis for investors to assess the company's performance, risk, and prospects. In practical terms, this study implies that companies need to maintain financial health, increase liquidity, strengthen operational cash flow, and optimally manage capital structures in order to increase company value and maintain investor confidence. For investors, financial indicators such as the Altman Z-Score, liquidity, OCF, and DER can be taken into consideration in evaluating the company's condition and making more rational investment decisions. Based on the findings of the study, property sector companies are advised to continue to improve the effectiveness of financial management through monitoring financial distress risks, strengthening liquidity capabilities, optimizing operational cash flow, and utilizing debt productively. Meanwhile, further research is suggested to add other variables that

have the potential to affect the company's value, expand the scope of the research sector, and use a longer observation period to produce more comprehensive findings and have broader generalization power.

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