Harmoni Economics: International Journal of Economics and Accounting

E-ISSN: 3063-8712
P-ISSN: 3063-6205

Research Article

The Influence of Window Dressing and Leverage on Investment Decisions in Consumer Non-Cyclical Companies Listed on the Indonesia Stock Exchange

Riyan Ardika[1]*, Ilham Wahyudi[2], Muhammad Ridwan[3]

[1] Faculty of Economics and Business, Jambi University, Indonesia ; e-mail : riyanardika3@gmail.com
[2] Faculty of Economics and Business, Jambi University, Indonesia ; e-mail : ilham_wahyudi@unja.ac.id
[3] Faculty of Economics and Business, Jambi University, Indonesia ; e-mail : m_ridwan@unja.ac.id

* Corresponding Author : Riyan Ardika

Abstract: Consumer non-cyclical companies represent a stable sector that provides essential goods and services, often attracting investors seeking long-term, low-volatility opportunities. This study investigates how financial strategies—specifically window dressing and leverage—influence investment decisions in 68 consumer non-cyclical companies listed on the Indonesia Stock Exchange for the period 2019–2023. Investment decisions are measured using two key valuation indicators: Price to Book Value (PBV) and Price to Earnings Ratio (PER). Window dressing is quantified through changes in quarterly cash holdings, while leverage is proxied by the Debt to Equity Ratio (DER). Employing a quantitative descriptive method, this research uses purposive sampling and multiple linear regression analysis, preceded by classical assumption tests. The findings reveal that both window dressing and leverage have a significant positive effect on PBV, indicating that these factors play a role in shaping market perceptions of firm value. Conversely, neither variable has a significant influence on PER, suggesting that investors in this sector rely more on consistent fundamentals than on short-term financial appearances or capital structure when evaluating profitability. These results support signaling theory, emphasizing that while financial signals can influence market behavior, their effectiveness depends on the credibility of the signal and the investor's focus. This study provides practical implications for managers aiming to enhance firm value and for investors seeking to interpret financial signals more accurately.

Keywords: Investment Decisions, Leverage, Price Earnings Ratio, Price to Book Value, Window Dressing.

Received: 14 April, 2025:
Revised: 19 May, 2025:
Accepted: 17 June ,2025:
Online Available: 26 June,2025:
Curr. Ver.: 26 June, 2025

1. Introduction

Investment decisions involve the allocation of funds to financial instruments or assets with the expectation of future returns, based on risk and return analysis [1]. Investors, whether individuals or institutions, typically participate in capital markets where issuers and fund providers meet through instruments such as stocks, bonds, and mutual funds. Rational investors base their decisions on fundamental analysis—such as company performance, financial statements, and industry outlook—and technical analysis, including price trends and trading volume. They also consider macroeconomic factors like inflation, interest rates, and political stability, aligning decisions with investment goals, risk tolerance, and time horizon [2]. In contrast, irrational investors are often influenced by emotions such as fear or market euphoria. For instance, during the early phase of the COVID-19 pandemic, panic buying and impulsive investment behavior were observed as market participants reacted emotionally to

uncertainty, often without sufficient analysis—leading to increased market volatility and potential financial losses [3].

Rational investors typically base their strategies on a combination of fundamental analysis—evaluating company performance, financial statements, and macroeconomic indicators—and technical analysis, such as trends in price movements and trading volumes [2]. In times of market uncertainty, such as during the early stages of the COVID-19 pandemic, maintaining rationality and discipline becomes particularly challenging for investors. The abrupt onset of global disruptions and heightened volatility often leads to emotionally driven decisions that deviate from sound investment principles. However, success in navigating market turbulence largely depends on the ability to adhere consistently to a pre-established investment plan. This includes applying the principle of diversification as a fundamental risk management strategy, which serves to mitigate unexpected losses and enhance port

folio resilience during periods of uncertainty [4].

Among the eleven sectors listed on the Indonesia Stock Exchange (IDX), the consumer non-cyclicals sector presents unique characteristics, particularly in its stability during economic fluctuations. This defensive nature often attracts investors seeking lower-risk assets during periods of market uncertainty. However, recent data reveals that this sector showed relatively modest PBV growth of only 11% during 2023–2024, significantly lower than other sectors such as consumer cyclicals, which recorded PBV growth of up to 85% [5]. This notable discrepancy raises important questions about investor interest, market perception, and valuation dynamics in the consumer non-cyclicals industry. It also suggests the possibility that the sector's perceived safety may come at the cost of growth potential, making it a relevant subject for further academic and empirical investigation.

Technical analysis tools like window dressing have been identified as factors influencing investor behavior, especially toward the end of the financial year. Window dressing involves presenting financial reports in a more favorable light, often to attract investors or meet managerial performance targets [6]. Brigham and Houston describe it as a practice aimed at enhancing the appearance of financial statements without altering the underlying fundamentals [7]. A notable case is PT Tiga Pilar Sejahtera Food Tbk. (AISA), which overstated its receivables to improve financial appearance, leading to a short-term increase in share price but eventually revealing significant financial distress and investor loss [8].

The phenomenon of window dressing that typically occurs at the end of the year—particularly in December—has made this month historically favorable for investors. The movement of the Indonesia Composite Index (IHSG) in December has consistently shown a positive trend. Historical records indicate that the IHSG's monthly performance in December has almost always ended in the green zone. From 2004 to 2021, spanning 18 consecutive years, the IHSG never experienced a decline during this month. However, in December 2022, the index recorded its first negative performance, declining by 3.26%. Meanwhile, the IHSG's strongest December performance occurred in 2003, when it surged by 12.12%.

Table 1. The IHSG's percentage movement from 2012 to 2021

Year	March	June	September	December
2012	3.42	3.20	4.98	0.95
2013	3.03	-4.93	2.89	0.42
2014	3.20	-0.31	0.01	1.50
2015	1.25	-5.86	-6.34	3.30
2016	1.56	4.58	-0.40	2.87
2017	3.37	1.60	0.63	6.78
2018	-6.19	-3.08	-0.70	2.28
2019	0.39	2.41	-2.52	4.79
2020	-16.76	3.19	-7.03	6.53
2021	-4.11	0.64	2.22	0.73
Average	-1.08	0.14	-0.63	3.02
Up	7	6	5	10
Down	3	4	5	0
Total	10	10	10	10
Up Probability	70%	60%	50%	100%

Source: Indonesia Stock Exchange, 2024

This historical IHSG data indicates that December has demonstrated a particularly strong upward trend, with a 100% probability of positive returns—higher than any other month. This phenomenon suggests that some investors and fund managers engage in selective stock purchases toward the end of the year in an effort to enhance portfolio performance and present more favorable results to shareholders.

In addition to window dressing, leverage is another critical variable affecting investment decisions. Leverage, typically measured by the Debt to Equity Ratio (DER), reflects a company's capital structure and reliance on debt financing [9]. According to capital structure theory, an optimal use of debt can increase firm value, while signaling theory (Ross, 1977) posits that debt can serve as a positive signal to investors regarding a firm's confidence and future prospects. During the COVID-19 pandemic, companies like Indofood and Ultrajaya Milk effectively leveraged debt to sustain operations and pursue strategic growth, resulting in improved performance and investor confidence [10]. Conversely, firms like Garudafood struggled despite increased debt, highlighting that leverage must be complemented with effective operational strategies. These contrasting outcomes underscore the need to further investigate the role of leverage, as its impact on investment decisions may vary significantly depending on firm-specific factors such as management efficiency, industry positioning, and financial resilience.

Previous research has analyzed window dressing primarily in broad market indices or across multiple sectors. However, few studies have focused on the consumer non-cyclicals sector specifically, despite its unique financial and operational characteristics. This study addresses that gap by examining the influence of both window dressing and leverage on investment decisions within consumer non-cyclical companies listed on the IDX over the 2019–2023 period. By integrating both technical and fundamental variables, this research aims to provide a more comprehensive understanding of how these financial strategies influence investor behavior and market valuation in a stable yet underexplored sector.

2. Literature Review

Investment refers to the allocation of financial resources into various assets or instruments with the expectation of generating future returns. According to Halim, investment activities are essential for both individuals and institutions in enhancing asset value or securing additional income [11]. In the context of financial markets, investors seek to optimize returns while managing associated risks. Investment decisions, therefore, represent a critical aspect of financial management, involving the evaluation of expected returns, risk exposure, and market conditions. Common financial indicators such as Price to Book Value (PBV) and Price to Earnings Ratio (PER) are often utilized to assess a company's valuation and future profitability potential, serving as important tools in guiding these decisions [12]. Hartono states that effective investment decision-making combines rational analysis, clear financial objectives, and a structured decision-making process, often guided by both fundamental and technical approaches [13].

Signaling theory, introduced by Ross (1977), provides a useful framework for understanding how companies communicate their internal conditions to external stakeholders. In financial markets, information asymmetry often exists between a company's management and investors [13]. To bridge this gap, managers may use observable financial decisions—such as issuing debt or distributing dividends—as signals to convey confidence in the firm's future performance. Corporate reports that are publicly disclosed may serve as a basis for shareholders to assess firm performance and inform their investment decisions[14]. In this context, capital structure choices, particularly the use of leverage, can send strong messages to investors about a company's risk tolerance, growth prospects, and credibility. A firm's ability to manage financial signals effectively can significantly influence investor perceptions and behavior.

Window dressing is a financial reporting strategy where managers attempt to make a company's financial position appear more attractive than it truly is, especially near the end of a reporting period [15]. Window dressing is a practice that presents a particular portfolio composition to the market, which is different from that held by the fund in the reporting period [16]. Brigham and Houston define window dressing as a deliberate effort by managers to temporarily enhance the appearance of financial statements to attract investors or satisfy performance evaluations [7]. This practice may involve inflating earnings, accelerating revenue recognition, or manipulating the timing of expenses. Empirical studies, such as Putri and

Sari, have documented instances of stock price surges at year-end that are often attributed to window dressing activities, particularly in December—a phenomenon that can distort investor judgment and misrepresent a firm's underlying financial health [17].

Leverage refers to the use of borrowed capital in financing a company's operations and investments. It is commonly measured through financial ratios such as the Debt to Equity Ratio (DER). Kasmir explains that leverage allows firms to enhance potential returns on equity, but it also increases financial risk due to mandatory interest and principal repayments [9]. According to Modigliani and Miller's capital structure theory, under certain assumptions, leverage can optimize a company's value by reducing its overall cost of capital. However, excessive leverage may lead to financial distress or bankruptcy. From a signaling perspective, a firm's decision to utilize debt financing can be interpreted by investors as a signal of managerial confidence in stable cash flows and long-term profitability [12].

The interaction between window dressing, leverage, and investment decisions highlights the complexity of investor behavior in response to financial signals and reporting practices. While window dressing may offer short-term gains through improved investor sentiment, its effectiveness is conditional on investor awareness and the perceived credibility of the firm's disclosures [7]. Leverage, on the other hand, has the potential to either enhance or deteriorate firm value depending on its alignment with operational capacity and strategic planning [9]. Together, these variables shape investor perceptions and play a crucial role in influencing how investment decisions are made in the capital market.

Previous studies have consistently demonstrated a significant relationship between window dressing practices and increases in PBV. Febriani et al. found that companies in the automotive and component sectors listed on the Indonesia Stock Exchange (IDX) that engaged in window dressing showed a notable rise in PBV at year-end [18]. Similarly, Debataraja and Sunarya identified a positive and significant impact of window dressing on PBV in the banking sector between 2017 and 2021 [19]. These findings suggest that financial statement enhancements made for cosmetic purposes can lead to improved investor perception, which then translates into higher market valuation as reflected in the PBV ratio.

H_1: Window dressing has a positive effect on Price to Book Value (PBV)

Empirical evidence also supports the positive influence of leverage, measured through Debt to Equity Ratio (DER), on PBV. A study by Syihab and Sadikin in the property and real estate sector found that companies with higher DER levels experienced an increase in PBV, suggesting that investors may interpret increased debt usage as a signal of growth potential when managed effectively [20]. Likewise, Seran and Al-Choir found a similar pattern in their study of PT Astra International Tbk, where DER had a significant and positive coefficient on PBV [21]. These results reinforce the signaling theory perspective that leverage can communicate managerial confidence and future profitability to the market.

H_2: Leverage (DER) has a positive effect on Price to Book Value (PBV)

The impact of window dressing on PER has also been confirmed in earlier research. Debataraja and Sunarya reported that in LQ45 banking companies, window dressing practices led to an artificial inflation of earnings figures, thereby boosting PER during the reporting period [19]. This suggests that investors may respond positively to improved profit appearances—even if temporary—reflecting an increased valuation of the firm's equity relative to its reported earnings. Such responses are aligned with signaling theory, wherein financial manipulation serves as a short-term signal of performance, regardless of its sustainability.

H_3: Window dressing has a positive effect on Price to Earnings Ratio (PER)

In contrast, several studies have shown a negative relationship between DER and PER. Nuarta et al., in their research on food and beverage companies listed on the IDX, found that higher DER levels were associated with lower PER [22]. The findings indicate that excessive reliance on debt may raise investor concerns regarding financial stability and repayment capacity, thereby suppressing stock price growth even when earnings are positive. These concerns are especially prominent during periods of economic uncertainty, where investors become more risk-averse. Thus, leverage must be carefully managed to avoid negative signaling effects on firm valuation.

H_4: Leverage (DER) has a positive effect on Price to Earnings Ratio (PER)

The development of this research framework is based on the theoretical foundation and empirical findings discussed in the previous section. Drawing on signaling theory, this study explores how managerial strategies—such as window dressing and leverage—serve as signals that influence investor perception and ultimately affect investment decisions. Window dressing is often used by managers to create a more favorable financial image, particularly at the

end of the reporting period, while leverage reflects a firm's approach to external financing and risk management.

To examine these dynamics, this study focuses on two key indicators of investment decision-making: Price to Book Value (PBV) and Price to Earnings Ratio (PER). PBV reflects market valuation relative to a firm's book value, while PER captures the market's expectations of future earnings growth. Both indicators are sensitive to market perceptions and are commonly used by investors in evaluating firm value. The proposed framework integrates window dressing and leverage as independent variables that are hypothesized to influence PBV and PER, thus providing a comprehensive view of how financial reporting strategies and capital structure decisions shape investor responses in the consumer non-cyclical sector.

This research framework can be see in the Figure 1 below :

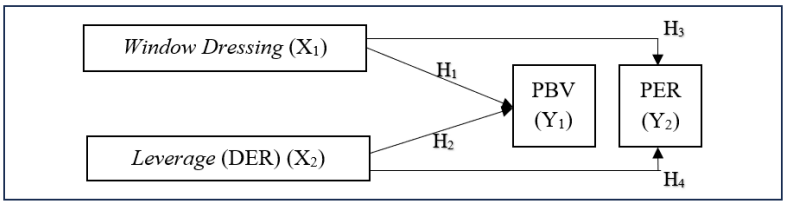

Figure 1. Research Framework

3. Proposed Method

This study employs a quantitative-descriptive research method, using numerical data to analyze the relationship between financial indicators. Secondary data in the form of annual and quarterly financial statements were obtained from the official website of the Indonesia Stock Exchange (IDX) for the 2019–2023 period. Time-series data are utilized to examine trends and fluctuations in key variables across multiple reporting periods.

The population in this study includes all companies in the consumer non-cyclical sector listed on the IDX. A non-probability sampling technique, specifically purposive sampling, was applied to select firms that meet criteria related to data availability and consistency throughout the study period.

The independent variables are window dressing and leverage. Window dressing is measured using the average difference approach, by comparing the average quarterly cash and cash equivalents in the fourth quarter with the average of the first three quarters. A significant increase in cash holdings at year-end may indicate managerial attempts to temporarily enhance financial appearance, thus reflecting potential window dressing behavior. Leverage is assessed using the Debt to Equity Ratio (DER). The dependent variable is investment decision, which is proxied by two indicators: Price to Book Value (PBV) and Price to Earnings Ratio (PER). Detailed variable definitions and measurement formulas are provided in the following section:

Table 2. Operational Variables and Measurements

Variable	Definition	Measurement	Scale
Window Dressing	Window dressing is a tactic where managers make financial statements look better than they are, especially at the end of a reporting period. [23]	$WD4.it = \left[\frac{CH4it - CHavg1.3it}{CHavg1.3it}\right] \times 100$ [23]	Ratio
Leverage	Leverage refers to the use of borrowed funds (debt) to finance the acquisition of assets or operations with the goal of increasing potential returns to shareholders. [9]	$DER = \frac{Total\ Liabilities}{Total\ Equity}$ [9]	Ratio
Price to Book Value	Price to Book Value (PBV) is a financial ratio that compares a company's	$PBV = \frac{Market\ Price\ per\ Share}{Book\ Value\ per\ Share}$	Ratio

	market price per share to its book value per share [12]	[12]	
Price to Earning Ratio	Price to Earnings Ratio (PER) is a financial metric that compares a company's market price per share to its earnings per share (EPS). [12]	$PER = \frac{Market\ Price\ per\ Share}{Earnings\ per\ Share\ (EPS)}$ [12]	Ratio

The sampling method employed in this study is purposive sampling, targeting companies in the consumer non-cyclical sector listed on the Indonesia Stock Exchange (IDX). The criteria for sample selection include: (1) companies must have been listed on the IDX since the first quarter of 2019 and remained continuously listed through 2023; (2) companies must have complete quarterly financial data during the 2019–2023 period; (3) companies must not have experienced trading suspensions during the observation period; and (4) companies must report their financial statements in Indonesian Rupiah. Based on these criteria, a total of 68 companies were selected from a population of 129 as valid samples for this study.

This study applies a multiple linear regression analysis to examine the influence of window dressing and leverage on investment decisions, as measured by Price to Book Value (PBV) and Price to Earnings Ratio (PER). Multiple linear regression is employed to evaluate the simultaneous effect of two or more independent variables on a dependent variable and is suitable for testing the proposed hypotheses in this research.

Prior to conducting the regression analysis, this study performs a series of classical assumption tests to ensure the validity and reliability of the regression model. These tests include:

1. Normality test – to examine whether the residuals in the model are normally distributed.
2. Multicollinearity test – to assess whether there is a high correlation among the independent variables, which could bias the regression estimates.
3. Heteroscedasticity test – to evaluate whether the variance of the residuals is constant across observations.
4. Autocorrelation test (if necessary, especially for time-series data) – to determine whether there is correlation between residuals over time.

Passing all classical assumption tests is essential to fulfill the conditions of the Best Linear Unbiased Estimator (BLUE) according to the Gauss-Markov theorem. Only after these assumptions are met, the regression results can be interpreted with confidence. All data processing and statistical tests are conducted using Microsoft Excel and SPSS version 25.0..

4. Results and Discussion

4.1. Descriptive Statistical Test Results

Before conducting classical assumption tests and regression analysis, this study begins with descriptive statistical analysis to provide an overview of the research variables. Descriptive statistics are used to summarize and describe the characteristics of the dataset, including the mean, minimum, maximum, and standard deviation of each variable. This step is essential to understand the distribution, central tendency, and variability of the data, as well as to detect any initial patterns or irregularities that may influence subsequent analyses.

Descriptive statistical analysis was conducted to provide an overview of the characteristics of each variable used in the study. The analysis included 340 observations for each variable.

Table 3. Results of Descriptive Statistical Test

	N	Minimum	Maximum	Mean	Std. Deviation
WD	340	-91.76	589.69	21.9421	77.58640
DER	340	-4.85	95.86	2.3800	7.04650
PBV	340	-7.32	60.67	3.4864	7.27295
PER	340	-1153.33	686.99	17.9831	102.36915
Valid N (listwise)	340				

Source: SPSS data processing results, 2025

The **Window Dressing (WD)** variable has a **mean value of 21.94** with a **standard deviation of 77.59**, indicating a relatively high level of variation across companies. The **minimum value is -91.76** and the **maximum is 589.69**, suggesting the presence of outliers or extreme differences in cash holding patterns among firms at year-end.

The **Debt to Equity Ratio (DER)** has an **average of 2.38**, with a **minimum of -4.85** and a **maximum of 95.86**, and a **standard deviation of 7.05**. The negative minimum value may reflect data entry issues or accounting anomalies, and the wide range suggests substantial variation in leverage policies among firms in the consumer non-cyclical sector.

The **Price to Book Value (PBV)** shows a **mean of 3.49** with a **standard deviation of 7.27**, and values ranging from **-7.32 to 60.67**. This indicates that while most firms are valued positively by the market, there are firms whose market value is significantly lower than their book value.

The **Price to Earnings Ratio (PER)** displays the highest variability, with a **mean of 17.98** and a **standard deviation of 102.37**, and values ranging from **-1153.33 to 686.99**. These extreme values likely reflect firms with negative earnings or market anomalies, indicating that PER may be highly sensitive to profitability fluctuations and should be interpreted cautiously.

Overall, the descriptive statistics indicate the presence of considerable variability and potential outliers in the dataset, especially for PER and WD, which may influence the results of subsequent regression analysis and justify the need for classical assumption testing.

4.2. Normality Test Results

The normality test is conducted to determine whether the residuals of the regression model are normally distributed. A normal distribution of residuals is one of the essential assumptions in classical linear regression, as it affects the validity of statistical inferences, such as hypothesis testing. In this study, the Kolmogorov-Smirnov test is used, where a significance value (Sig.) greater than 0.05 indicates that the data are normally distributed and the assumption of normality is fulfilled.

Table 4. Results of Normality Test (Model I-Dependent Variable : PBV)

		Unstandardized Residual
N		340
Normal Parameters[a,b]	Mean	.0000000
	Std. Deviation	.70242358
Most Extreme Differences	Absolute	.044
	Positive	.028
	Negative	-.044
Test Statistic		.044
Asymp. Sig. (2-tailed)		.200[c,d]

Source: SPSS data processing results, 2025

The Kolmogorov-Smirnov normality test **model I** was conducted to evaluate whether the residuals of the regression model are normally distributed. The test results show that the Asymp. Sig. (2-tailed) value is **0.200**, which is **greater than the significance level of 0.05**. This indicates that the null hypothesis, which assumes a normal distribution of residuals, **cannot be rejected**. Therefore, it can be concluded that the residuals are **normally distributed**, and the regression model for the PBV variable satisfies the assumption of normality.

Table 5. Results of Normality Test (Model II-Dependent Variable : PER)

		Unstandardized Residual
N		340
Normal Parameters[a,b]	Mean	.0000000
	Std. Deviation	15.16180662
Most Extreme Differences	Absolute	.043
	Positive	.035
	Negative	-.043
Test Statistic		.043
Asymp. Sig. (2-tailed)		.200[c,d]

Source: SPSS data processing results, 2025

The Kolmogorov-Smirnov normality test **model II** was conducted to evaluate whether the residuals of the regression model are normally distributed. The test results show that the Asymp. Sig. (2-tailed) value is **0.200**, which is **greater than the significance level of 0.05**. This indicates that the null hypothesis, which assumes a normal distribution of residuals, **cannot be rejected**. Therefore, it can be concluded that the residuals are **normally distributed**, and the regression model for the P**ER** variable satisfies the assumption of normality

4.3. Multicollinearity Test Results

The multicollinearity test is used to identify whether there is a high correlation among independent variables in the regression model. High multicollinearity can distort the estimation of regression coefficients, making it difficult to determine the individual effect of each variable. This study employs the Variance Inflation Factor (VIF) and Tolerance values to assess multicollinearity. A VIF value below 10 and a Tolerance value above 0.10 indicate the absence of multicollinearity and that the independent variables can be reliably included in the model.

Table 6. Results of Multicollinearity Test (Model I-Dependent Variable : PBV)

	Collinearity Statistics	
Model	Tolerance	VIF
WD	**0.705**	**1.419**
DER	**0.705**	**1.419**

Source: SPSS data processing results, 2025

Based on the multicollinearity test results in **m**odel **I**, as indicated by the Tolerance and Variance Inflation Factor (VIF) values, there is no evidence of multicollinearity among the independent variables. Both Window Dressing and Debt to Equity Ratio have Tolerance values of 0.705, well above the 0.10 threshold, and VIF values of 1.419, which are far below the commonly used cutoff of 5. These results indicate that the independent variables are not strongly correlated and do not cause variance inflation, ensuring that the regression model is free from multicollinearity and that the coefficient estimates are both valid and reliable.

Table 7. Results of Multicollinearity Test (Model II-Dependent Variable : PER)

	Collinearity Statistics	
Model	Tolerance	VIF
WD	**0.705**	**1.419**
DER	**0.705**	**1.419**

Source: SPSS data processing results, 2025

Based on the results of the multicollinearity test of model II, the Tolerance value of 0.705 and VIF of 1.419 for the window dressing and debt to equity ratio variables indicate that there is no multicollinearity in the model. These values are within reasonable limits, so that the independent variables do not have a strong linear relationship with each other. Thus, the regression model can be used without worrying about multicollinearity interference.

4.4. Heteroscedasticity Test Results

The heteroscedasticity test is used to assess whether the variance of the residuals is constant across different levels of the independent variables. In this study, heteroscedasticity is tested using the scatterplot method, where the residuals (standardized or studentized) are plotted against the predicted values. A good regression model should exhibit a random and evenly spread pattern of residuals, forming a scattered and symmetrical distribution around the horizontal axis (zero line). If the plot shows a specific pattern (e.g., funnel shape or clear trend), it indicates the presence of heteroscedasticity. The absence of such patterns in the scatterplot suggests that the data fulfill the homoscedasticity assumption.

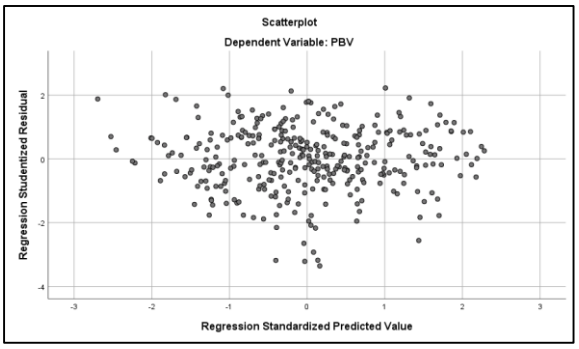

Figure 2. Results of Heteroscedasticity Test (Model I-Dependent Variable : PBV)
Source: SPSS data processing results, 2025

The random and unstructured distribution pattern indicates that there is no heteroscedasticity in the regression model. This means the variance of the residuals remains constant (homoscedastic) across the range of predicted values. Therefore, the classical assumption of homoscedasticity is fulfilled, and the regression model can be considered valid in terms of error variance stability.

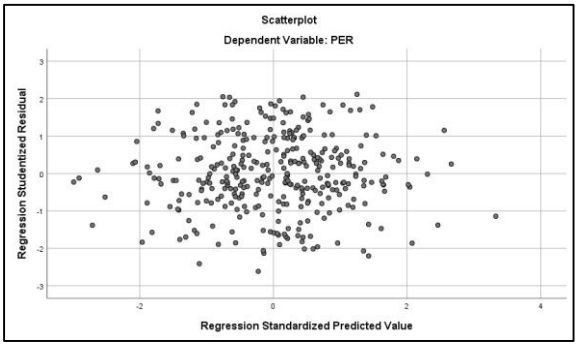

Figure 3. Results of Heteroscedasticity Test (Model II-Dependent Variable : PER)
Source: SPSS data processing results, 2025

Based on the scatterplot between the standardized predicted values and studentized residuals, the points appear randomly dispersed around the zero line without forming any specific pattern such as a fan shape, curve, or other systematic structures. This pattern suggests that the residual variance is constant, leading to the conclusion that the regression model does not exhibit symptoms of heteroscedasticity. With this assumption satisfied, the regression model is appropriate for further analysis.

4.5. Autocorrelation Test Results

The autocorrelation test assesses whether the residuals in the regression model are correlated with one another over time. Autocorrelation is especially relevant in time-series data and can violate the assumption of independence among observations. This study uses the Durbin-Watson (DW) test to detect autocorrelation. A DW value close to 2 suggests no autocorrelation, while values significantly lower than 2 indicate positive autocorrelation and values significantly higher than 2 indicate negative autocorrelation.

Table 8. Results of Autocorrelation Test (Model I-Dependent Variable : PBV)

Durbin-Watson
1.755

Source: SPSS data processing results, 2025

Based on the regression output, the Durbin-Watson value of 1.755 indicates no signs of autocorrelation in the regression model. This value is close to the ideal threshold of 2, suggesting that the residuals are independent. Thus, the regression model satisfies the classical assumption of no autocorrelation, allowing the estimation results to be considered valid.

Table 9. Results of Autocorrelation Test (Model II-Dependent Variable : PER)

Durbin-Watson
1.692

Source: SPSS data processing results, 2025

Similarly, a Durbin-Watson value of 1.692 also falls within the acceptable range, reinforcing the conclusion that the regression model does not suffer from autocorrelation. As this assumption is met, the model is deemed appropriate for further analysis without violating classical linear regression assumptions.

4.6. Multiple Linear Regression Test Results

The multiple linear regression analysis was conducted to examine the influence of the independent variables—Window Dressing and Leverage—on investment decisions, as measured by Price to Book Value (PBV) and Price Earnings Ratio (PER). This test aims to determine the magnitude and significance of each variable's effect on the dependent variables, while ensuring that the assumptions of classical linear regression have been satisfied. The following table presents the results of the regression analysis.

Table 10. Results of t-test (Model I-Dependent Variable : PBV)

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients			Collinearity Statistics	
		B	Std. Error	Beta	t	Sig.	Tolerance	VIF
1	(Constant)	1.691	.115		14.690	.000		
	WD	.022	.001	.678	20.459	.000	.705	1.419
	DER	.718	.086	.275	8.297	.000	.705	1.419

a. Dependent Variable: PBV

Source: SPSS data processing results, 2025

The linear regression model generated from these results is:

$$PBV = 1{,}691 + 0{,}022WD + 0{,}718DER$$

Based on the t-test results model I, both independent variables—**Window Dressing (WD)** and **Debt to Equity Ratio (DER)**—have a significant positive influence on Price to Book Value (PBV).

- For **Window Dressing (WD)**, the t-value is **20.459** with a significance level of **0.000** ($p < 0.05$). This indicates a statistically significant effect. The positive unstandardized coefficient (**B = 0.022**) suggests that an increase in window dressing is associated with an increase in PBV, holding other variables constant.
- For **Debt to Equity Ratio (DER)**, the t-value is **8.297** and the significance level is also **0.000** ($p < 0.05$), confirming a significant relationship. The unstandardized coefficient (**B = 0.718**) implies that higher leverage leads to higher PBV, assuming other variables remain unchanged.

Table 11. Results of t-test (Model II-Dependent Variable : PER)

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients			Collinearity Statistics	
		B	Std. Error	Beta	t	Sig.	Tolerance	VIF
1	(Constant)	10.100	2.485		4.064	.000		
	WD	-.011	.023	-.031	-.479	.632	.705	1.419
	DER	.751	1.867	.026	.402	.688	.705	1.419

a. Dependent Variable: PER

Source: SPSS data processing results, 2025

The t-test results indicate that both independent variables—**Window Dressing (WD)** and **Debt to Equity Ratio (DER)**—do **not** have a statistically significant effect on **Price to Earnings Ratio (PER)**.

- For **Window Dressing**, the t-value is **-0.479** with a significance level of **0.632** ($p > 0.05$). This implies that window dressing has no significant influence on PER. The negative coefficient (**B = -0.011**) further suggests a weak and statistically insignificant inverse relationship.
- For **Debt to Equity Ratio**, the t-value is **0.402** with a significance level of **0.688** ($p > 0.05$), indicating no significant effect on PER. Although the coefficient is positive (**B = 0.751**), it is not statistically meaningfu

4.6. Discussion

H_1: Window dressing has a positive effect on Price to Book Value (PBV)

This study finds that window dressing has a significant effect on Price to Book Value (PBV) in non-cyclical consumer companies. A higher level of window dressing tends to raise PBV, indicating that strategically prepared year-end financial reports may create a more favorable perception among investors. As such, window dressing serves not only as a managerial tactic but also as a signal that influences investment decisions through market valuation indicators like PBV.

These findings are consistent with previous research by Febriani et al. and Debataraja & Sunarya, which confirmed the positive effect of window dressing on PBV across different sectors, including automotive and services [18][19]. This suggests that the signaling impact of window dressing extends beyond cyclical industries to stable sectors such as consumer non-cyclicals.

Theoretically, this aligns with signaling theory (Ross, 1977), where window dressing acts as a tool to reduce information asymmetry by sending positive signals to investors. Temporary enhancements in financial statements—such as boosting earnings or cutting expenses—can create the impression of stronger performance, thus influencing market valuation [24].

Nevertheless, the effectiveness of such signals depends on investors' ability to discern genuine performance from temporary adjustments. As noted by Agarwal et al., repeated use of window dressing without real performance improvement may lead to investor distrust and damage long-term reputation [25]. Therefore, both managers and investors must balance strategic communication with transparency to ensure credible and sustainable market relationships.

H_2: Leverage (DER) has a positive effect on Price to Book Value (PBV)

The results indicate that the Debt to Equity Ratio (DER) has a positive and significant influence on Price to Book Value (PBV) in non-cyclical consumer companies. This implies that companies with higher leverage tend to have higher market valuations relative to their book values, suggesting that capital structure—especially the use of debt—is considered by investors in assessing growth potential.

These findings align with previous research by Syihab and Sadikin, and Seran and Al Choir, which found a similar positive relationship between DER and PBV across various sectors [20][21]. Their studies suggest that optimal leverage levels can enhance investor confidence by signaling effective risk management and the potential for higher returns.

This relationship is supported by signaling theory, which posits that financial decisions such as increased leverage may convey managerial optimism about future profitability [26]. If interpreted positively, this signal can drive investor interest and stock prices, thus raising PBV.

However, excessive leverage may send a negative signal if not backed by solid operational performance and sustainable profit growth [27].

From a managerial standpoint, these findings highlight the importance of viewing DER as both a financial strategy and a communication tool to the market. For investors, DER should be analyzed in the context of broader financial indicators such as cash flow and industry prospects. When interpreted wisely, DER serves as a valuable signal for rational investment decision-making.

H_3: Window dressing has a positive effect on Price to Earnings Ratio (PER)

The findings reveal that window dressing does not significantly influence the Price to Earnings Ratio (PER) in consumer non-cyclical companies listed on the Indonesia Stock Exchange for the 2019–2023 period. This suggests that end-of-year financial report adjustments by management fail to impact investor perception regarding profitability, as reflected in PER. Investors appear to disregard such cosmetic enhancements in evaluating earnings potential or expected returns.

This result contrasts with Debataraja, who reported a positive relationship between window dressing and PER, especially in more volatile sectors [19]. However, it aligns with Febriani et al., who found no significant effect of window dressing on PER in the automotive sector, highlighting investor preference for long-term fundamentals over short-term financial manipulation [18].

From the lens of signaling theory, the absence of impact indicates that window dressing does not transmit a strong or credible signal to investors in shaping earnings expectations. Since PER relies on sustainable profitability, any artificial financial presentation lacking real operational improvements is likely ignored or viewed skeptically [28].

Given the relatively stable nature of the consumer non-cyclicals sector, investors in this space prioritize consistent indicators like operating margins and cash flow. Temporary financial adjustments have limited effectiveness in altering stock valuation based on earnings. Moreover, due to higher investor financial literacy and advanced market analytics, short-term cosmetic strategies such as window dressing are increasingly identifiable and thus less influential.

Additionally, the presence of negative PER values in the dataset—resulting from company losses—may explain why window dressing, which yields only positive adjustments, fails to significantly affect PER. This data asymmetry further reduces the explanatory power of window dressing on PER movements [18].

H_4: Leverage (DER) has a positive effect on Price to Earnings Ratio (PER)

This study finds that leverage, as measured by the Debt to Equity Ratio (DER), does not have a significant influence on the Price to Earnings Ratio (PER) among consumer non-cyclical companies listed from 2019 to 2023. This suggests that capital structure, specifically the proportion of debt to equity, is not a key determinant in shaping investor valuation based on earnings in this sector.

The result contrasts with Nuarta et al., who observed a negative relationship between DER and PER, interpreting high leverage as a risk signal that lowers earnings expectations [22]. However, it aligns with Matsani, who found no significant relationship between DER and PER in the food and beverage sector, emphasizing investors' focus on short-term profitability and operational efficiency over capital structure [29].

From the perspective of signaling theory, DER does not appear to act as a credible or influential signal regarding future profitability [30]. In stable sectors such as consumer non-cyclicals, investors tend to adopt conservative outlooks and rely more on profitability indicators like net margin or return on equity, rather than leverage ratios.

The insignificant relationship may also be due to the temporal mismatch: DER reflects historical financing decisions, while PER is driven by future earnings expectations. Therefore, debt levels do not directly impact investor valuations in this context. Additionally, because firms in this sector generally operate in low-risk environments, investors may not perceive leverage as a critical factor in earnings valuation, rendering DER less relevant for explaining PER.

5. Conclusions and Recommendation

Based on the regression analysis conducted on consumer non-cyclical companies listed on the Indonesia Stock Exchange during 2019–2023, several conclusions can be drawn. First, window dressing has a positive effect on Price to Book Value (PBV), suggesting that strategic financial reporting by management can enhance investor perception and increase market valuation. Likewise, leverage as measured by the Debt to Equity Ratio (DER) positively influences PBV, indicating that optimal debt usage is perceived as a signal of growth and stability. However, window dressing does not significantly affect the Price to Earnings Ratio (PER), showing that investors tend to rely on more consistent and fundamental indicators rather than temporary profit appearances. Similarly, DER does not significantly influence PER, as investors may prioritize operational performance and future earnings potential over capital structure.

This study, however, has several limitations. It only examines two independent variables (window dressing and DER) and two investment decision indicators (PBV and PER), which may not fully represent all factors influencing investor behavior in the sector. Additionally, the measurement of window dressing is conducted purely through quantitative financial data, without incorporating qualitative aspects. The research is also limited to non-cyclical consumer companies, thus its findings may not be generalizable to other sectors or different time periods.

Based on these findings, future research is recommended to include more comprehensive variables, sectors, and timeframes. Investors are encouraged to look beyond surface-level financial indicators and conduct more in-depth analyses. Meanwhile, company management should maintain transparency and utilize financial strategies responsibly to preserve long-term investor trust and market credibility.

References

[1] I. Fahmi, Pengantar Pasar Modal. Bandung: Alfabeta, 2015.

[2] E. Tandelilin, Portofolio dan Investasi: Teori dan Aplikasi. Yogyakarta: Kanisius, 2010.

[3] M. A. Pratama, "Covid-19 dan Efeknya ke Performa Pasar Modal Indonesia," BI Institute. [Online]. Available: https://www.bi.go.id/id/bi-institute/BI-Epsilon/Pages/Covid-19-dan-Efeknya-ke-Performa-Pasar-Modal-Indonesia.aspx

[4] A. Amelia Putri et al., "Pengaruh Profitabilita Likuiditas dan Leverage Terhadap Keputusan Investasi Pada Perusahaan Food And Beverage Di Bursa Efek Indonesia Periode 2018-2022," J. Int. Multidiscip. Res., pp. 91–100, 2022.

[5] Indonesia Stock Exchange, "IDX Yearly Statistics 2024," 2024.

[6] A. Sugiono and E. Untung, Panduan Praktis Dasar Analisis Laporan Keuangan. Jakarta: PT Grasindo, 2016.

[7] E. F. Brigham and J. F. Houston, Essentials of Financial Management, 4th ed. Singapore: Cengange Learning Asia Pte Ltd, 2018.

[8] F. Sarumaha, "Pelanggaran Etika Profesi: Window Dressing Manipulasi Laporan Keuangan oleh PT Tiga Pilar Sejahtera Food Tbk (AISA) Tahun 2017," Kompasiana. Accessed: May 12, 2025. [Online]. Available: https://www.kompasiana.com/fiktor39095/62a1e5d6fca4e42f25209392/pelanggaran-etika-profesi-window-dressing-manipulasi-laporan-keuangan-oleh-pt-tiga-pilar-sejahtera-food-tbk-aisa-tahun-2017?page=2

[9] Kasmir, Analisis Laporan Keuangan, 1st ed. Jakarta: PT Rajagrafindo Persada, 2017.

[10] M. Kurnia, "Bagaimana Kondisi Perusahaan semenjak Pandemi, Hengkang atau Bertahan?," Kumparan. [Online]. Available: https://kumparan.com/michele-kurnia/bagaimana-kondisi-perusahaan-semenjak-pandemi-hengkang-atau-bertahan-1w1GcFqdc8o

[11] A. Halim, Analisis Investasi, 2nd ed. Jakarta: Salemba Empat, 2005.

[12] I. Fahmi, Analisis Laporan Keuangan, 4th ed. Bandung: CV Alfabeta, 2014.

[13] J. Hartono, Teori portofolio dan analisis investasi, 8th ed. Yogyakarta: BPFE, 2017.

[14] D. I. Mustika, D. Djatnika, and S. Setiawan, "Pengaruh Kinerja Keuangan Perusahaan dan Variabel Makroekonomi terhadap Harga Saham yang Terdaftar di Jakarta Islamic Index," J. Appl. Islam. Econ. Financ., vol. 2, no. 2, pp. 351–362, Feb. 2022, doi: 10.35313/jaief.v2i2.2974.

[15] M. P. D. Saragih, F. Fidyah, A. Eki Pradita, and A. Permanasari, "Determinan dan Pengaruh Parktik Window Dressing Pada Perusahaan Sektor Teknologi di Indonesia," Audit. dan Perpajak., vol. 1, no. 1, pp. 1–10, 2024, [Online]. Available: https://dataindonesia.id

[16] M. R. Marques, J. O. Sampaio, and V. A. B. Silva, "Window dressing em fundos de investimento no Brasil," Rev. Contab. e Financ., vol. 31, no. 82, pp. 116–128, 2020, doi: 10.1590/1808-057x201908760.

[17] W. D. Putri and S. P. Sari, "Fenomena Sell in May,Window Dressing, December Effect dan January Effect terhadap Dinamika Harga Saham Perbankan," 5th Pros. Bus. Econ. Conf. Util. Mod. Technol. 2022, pp. 614–623, 2022, [Online]. Available: https://journal.unimma.ac.id/index.php/conference/article/view/7511

[18] L. Febriani, I. Wahyudi, and F. Olimsar, "Pengaruh Window Dressing Terhadap Keputusan Investasi Pada Perusahaan Otomotif Dan Komponen Yang Terdaftar Di Bursa Efek Indonesia (2016-2020)," Jambi Account. Rev., vol. 2, no. 1, pp. 112–127, 2022, doi: 10.22437/jar.v2i1.17254.

[19] M. Debataraja and P. A. Sunarya, "Pengaruh Window Dressing Terhadap Keputusan Investasi Pada Perusahaan Lq45 Sektor Perbankan Yang Terdaftar Di Bursa Efek Indonesia (2017-2021)," Indones. J. Account., vol. 4, no. 1, pp. 14–18, 2023.

[20] F. L. Syihab and T. Sadikin, "The Effect of Return on Assets and Debt To Equity Ratio on Price To Book Value," J. Focus Manaj. UPMI, vol. 1, no. 01, pp. 82–98, 2024, doi: 10.55751/jfm.v1i01.94.

[21] L. M. Seran and F. Al-choir, "Pengaruh Current Ratio (CR) dan Debt to Equity Ratio (DER) terhadap Nilai Perusahaan (PBV) pada PT Astra International Tbk Periode 2013–2023," JORAPI J. Res. Publ. Innov., vol. 2, no. 4, pp. 848–858, 2024.

[22] E. Nuarta, I. G. Arimbawa, M. M. A. Alwan, E. Damayanti, and J. Suyono, "The Influence of Debt Asset Ratio (Dar), Debt Equity Ratio (Der), on Return on Equity Ratio (Roe) and Price Earning Ratio (Per) in Food & Beverages Companies Listed in Indonesia Stock Exchange in 2016 - 2018," Int. Conf. Bus. Soc. Sci., pp. 345–357, 2020.

[23] A. R. Khokhar, "Three Essays in Empirical Corporate Finance," Open Acces Diss. Theses, 2018.

[24] H. L. Huang, L. W. Liang, H. Y. Chang, and H. Y. Hsu, "The influence of earnings management and board characteristics on company efficiency," Sustain., vol. 13, no. 21, pp. 1–18, 2021, doi: 10.3390/su132111617.

[25] V. Agarwal, G. D. Gay, and L. Ling, "Window Dressing in Mutual Funds," Rev. Financ. Stud., vol. 27, no. 11, pp. 3133–3170, 2014.

[26] M. Epure and M. Guasch, "Debt signaling and outside investors in early stage firms," J. Bus. Ventur., vol. 35, no. 2, 2020, doi: 10.1016/j.jbusvent.2019.02.002.

[27] N. S. Latipah, Hwihanus, and N. Rahmiyati, "Pengaruh Likuiditas, Struktur Aktiva, Struktur Modal Terhadap Nilai Perusahaan Dengan Profitabilitas Sebagai Variabel Intervening Pada Consumer Non-Cyclical yang Terdaftar di Bursa Efek Indonesia," J. Trends Econ. Account. Res., vol. 3, no. 4, pp. 550–560, 2023, doi: 10.47065/jtear.v3i4.640.

[28] N. S. Primasari and E. T. Wahyuningtyas, "Analisis F-Score untuk Pendeteksian Window Dressing dengan Moderasi Manajemen Laba dan Cash Holding," E-Jurnal Akunt., vol. 31, no. 5, p. 1189, 2021, doi: 10.24843/eja.2021.v31.i05.p09.

[29] Matsani, "The Influence of Current Ratio, Debt to Equity Ratio, and Total Asset Turnover on Price Earning Ratio: A Case Study on Companies in the Food and Beverage Industry Listed on the Indonesia Stock Exchange during the Period 2011-2020.," Judicious J. Manag., vol. 4, no. 2, pp. 316–333, 2023, doi: 10.37010/jdc.v4i2.1469.

[30] M. Kebewar, "The Effect of Debt on Corporate Profitability: Evidence from French Service Sector," SSRN Electron. J., 2012, doi: 10.2139/ssrn.2191075.