

Research Article

Firm Size and Leverage on Company Performance: The Role of IT Investment as a Moderation Variable

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Abstract: This study aims to analyze the effect of firm size and leverage on company performance with Information Technology Investment (ITI) as a moderating variable in non-primary consumer goods sector companies (consumer cyclical) listed on the Indonesia Stock Exchange in 2021-2023. The population in this study were all non-primary consumer goods sector companies (consumer cyclical) listed on the Indonesia Stock Exchange. The sample in this study was 85 companies with 220 observation data obtained using purposive sampling techniques. This study uses multiple linear regression analysis methods and Moderated Regression Analysis (MRA) using IBM SPSS 30 software. The results of this study conclude that firm size has a significant positive effect on company performance, leverage has a significant negative effect on company performance, Information Technology Investment (ITI) significantly strengthens the effect of firm size on company performance, Information Technology Investment (ITI) does not moderate the relationship between leverage and company.

Keywords: Firm Size; Leverage; Company Performance.

1. Introduction

The non-primary consumer goods sector (consumer cyclical) is one of the economic sectors that supports Indonesia's economic development that produces or distributes non-urgent products and services (discretionary) or secondary goods (www.idx.co.id). This sector includes various sub-sectors such as automotive, electronics, clothing, luxury goods, retail, as well as other lifestyle products that make this sector highly sensitive to macroeconomics and changes in purchasing power. The development of the non-primary consumer goods sector (consumer cyclical) in Indonesia in recent years has shown a positive trend. From data from the Indonesia Stock Exchange (IDX), the number of companies in this sector increased from 132 companies in 2021, to 159 companies in 2023. This growth shows that the consumer cyclical sector continues to attract industry players. However, this growth will also pose new challenges in the form of increasingly fierce competition in both domestic and global markets, requiring companies to be able to adapt quickly to market conditions, coupled with economic fluctuations and rapid changes in purchasing power.

In this competitive environment, company performance is an important factor in determining the company's competitiveness and business continuity. This is because optimal performance not only reflects the efficiency of resource management, but is also an important indicator for investors and other stakeholders. One of the measures that can be used to assess a company's performance is Return On Asset (ROA). ROA is a ratio used to calculate a company's ability to generate net profit on the assets owned by the company over a certain period (Talha et al., 2022).

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Table 1. ROA of Several Consumer Cyclical Sector Companies Listed on the IDX in 2021-2023

Company	ROA		
	2021	2022	2023
Astra Otoparts Tbk (AUTO)	3,7%	8,0%	10,3%
PT Chitose Internasional Tbk (CINT)	-19,9%	-1,5%	1,3%
PT Anugerah Kagum Karya Utama Tbk (AKKU)	-16,7%	-4,9%	-0,7%
PT Sepeda Bersama Indonesia Tbk (BIKE)	18,2%	14,3%	7,5%
Mahaka Media Tbk (ABBA)	-4,0%	-6,0%	-16,0%

Source: Annual Report of each company

From Table 1, it can be seen that not all companies in the consumer cyclical sector have experienced an increase in performance even though this sector continues to grow. For example, the company Astra Otoparts Tbk (AUTO) showed a significant increase in ROA from 3.7% in 2021 to 10.3% in 2023. This indicates that the company is getting more efficient in managing its assets. However, on the other hand, the company Mahaka Media Tbk (ABBA) experienced a downward trend in ROA, even reaching -16.0% in 2023. This downward trend shows that the company's efficiency in generating profits from its assets is also getting lower, which if this trend continues, the company is likely to face financial risks and decreased competitiveness due to worsening performance. To avoid this decline in performance, it is necessary to analyze factors that can affect the company's performance, especially from internal factors, so that the company can establish a long-term strategy in maintaining and improving the company's performance, especially from within the company.

According to Ershova et al. (2021), one of the factors that is suspected to be able to affect company performance is firm size and leverage. The size of a company reflects the company's capacity to manage risk, obtain financing, and the ability to invest in innovation. Meanwhile, leverage or debt ratio, describes the funding strategy used by the company, as well as the level of financial risk that the company bears. The high use of leverage without being balanced with efficient management can reduce profitability and increase the company's financial burden.

In today's era of digitalization, investment in information technology (Information Technology Investment) is increasingly an important strategy in encouraging company efficiency and innovation. Both investments in hardware, software, and management information systems that support decision-making. Table 2 shows how the level of investment in information technology in several companies in the consumer sector is assessed from the IT disclosure index of each company.

Table 2. IT Disclosure Index of several companies in the consumer cyclical sector

Company	ITI		
	2021	2022	2023
Astra Otoparts Tbk (AUTO)	95%	85%	85%
PT Chitose Internasional Tbk (CINT)	75%	80%	70%
PT Anugerah Kagum Karya Utama Tbk (AKKU)	10%	15%	20%
Electronic City Indonesia Tbk. (ECII)	30%	45%	55%
Mahaka Media Tbk (ABBA)	45%	50%	40%

Based on Table 2, it can be seen that there are significant differences between several companies in the consumer cyclical sector. PT Astra Otoparts Tbk. has an IT disclosure index that tends to be consistent, which is above 85%, this is in line with the company's

performance which also continues to increase, from 3.7% in 2021 to 10.3% in 2023. While PT Anugerah Kagum Karya Utama Tbk only has an IT Disclosure index of 10% and increased to 20% in 2023, the company's performance continues to show a negative trend throughout the 2021-2023 period. This also happens to PT Mahaka Media Tbk, where although the company's IT Disclosure index value is in the range of 40-50%, the company's performance continues to decline to -16% in 2023. This data shows that the high level of the IT Disclosure index has a correlation with increased efficiency and company performance.

In addition, the phenomenon of the IT productivity paradox also shows that not all investments in technology will provide significant results on company performance. Therefore, it is important to examine the role of IT investment in more depth, including as a moderation variable. This study aims to find out how firm size and leverage affect company performance, as well as test whether information technology investment (IT investment) is able to moderate the relationship between these two variables and company performance in companies in the non-primary consumer goods sector (consumer cyclicals) listed on the IDX during the 2021-2023 period.

2. Literatur Review

Resource Based View Theory (RBV)

The RBV theory explains that a company's competitive advantage is highly dependent on internal resources that are valuable, rare, inimitable, and non-substitutable (Barney, 1991). In this context, investment in information technology is one of the resources that can create a competitive advantage if it is strategically integrated. Handoyo et al., (2023) explain that companies that are able to manage IT effectively, will improve business efficiency and performance.

Agency Theory

Agency Theory was first proposed by Micheal C. Jensen and Williah H Meckling in 1976 which describes the relationship between the owner of the company (Principal) and management (agent). Ramadhani (2020) said that agency theory is used to help understand the conflict between agent and principal. Where in this relationship there is a conflict of interest called an agency problem, which is when the principal hires an agent to operate the company, the principal expects the agent to act in accordance with the interests of the principal in operating the company so as to generate profits for the principal.

Trade-off Theory

The Trade-off Theory explains that companies must find a balance between the tax benefits of debt (tax shield) and the risk of bankruptcy arising from high leverage (Kraus & Litzenberger, 1973). Research [3] shows that companies with high leverage tend to experience a decrease in ROA, this is due to high interest expense and limited space to invest in productive activities.

Pecking Order Theory

The pecking order theory states that companies make funding decisions in a hierarchical manner starting from internal funding to external funding. This funding sequence starts from retained earnings, then debt to finally the issuance of new equity (Myers and Majluf, 1984). Generally, large companies have large assets. Where large companies prefer internal funding as a form of financial efficiency and a strategy to maintain company performance.

Firm Size

Firm Size is a big picture of the size of a company (Eri M, 2022). The larger a company, the easier it will be for the company to have access to greater resources, both capital, labor, technology and distribution networks [1] (Menicucci and Paolucci, 2016) [4].

Leverage

Leverage adalah jumlah utang yang digunakan perusahaan untuk mendanai struktur modalnya. Menurut Kasmir (2019) leverage merupakan rasio yang digunakan dalam

mengukur sejauh mana aktivitas perusahaan dibiayai dengan utang, penggunaan utang yang tinggi tanpa pengelolaan yang baik dapat meningkatkan risiko finansial, yang akan berdampak negative terhadap profitabilitas perusahaan. Hal ini dikarenakan leverage yang tinggi dapat mengurangi fleksibilitas keuangan perusahaan dalam jangka panjang [3].

Company Performance

According to Sri & Chen (2019), company performance is the result or achievement of the company from the operational activities and use of resources owned by the company in a certain period of time, which reflects the company's condition. A company's performance appraisal provides an overview of how effective and efficient the company is in achieving its goals.

Information Technology Investment

Information Technology Investment is the decision to invest in allocating all types of resources including hardware, software applications and human resources to manage information systems (Scniederjans et al., 2010:9). According to Hermin et al., (2023) IT investments that are carried out strategically will increase the speed of information, operational efficiency, and the competitiveness of the company.

The Influence of Firm Size on Company Performance

Sunarto and Budi (2009) said that generally large companies have large total assets. The larger the assets owned by the company, the smoother the asset turnover rate, so that the profit obtained by the company will also be greater (Kartikaningsih, 2013). With high profits and easy access to financing, it allows companies to make various investments in innovation, including technology and increase competitiveness to support the company's future growth which ultimately improves the company's performance.

H1: Firm size has a positive and significant effect on the performance of companies in the Non-Primary Consumer Goods Sector (consumer cyclical) listed on the Indonesia Stock Exchange (IDX).

The Effect of Leverage on Company Performance

Sukadana & Triaryati (2018) explain that high levels of leverage have high risks, where companies will pay larger debt costs. With a large debt burden, the company's profit will be reduced as a result of the payment of interest expense from the debt, so that if the use of debt is not considered, it will reduce the company's performance.

H2: Leverage has a negative and significant effect on the performance of companies in the Non-Primary Consumer Goods Sector (consumer cyclical) listed on the Indonesia Stock Exchange (IDX)

The Effect of Information Technology Investment on Firm Size

The larger the assets owned by the company, the smoother the asset turnover rate, so that the profit obtained by the company will also be greater (Kartikaningsih, 2013). With a large amount of assets and higher profits coupled with access to a variety of easier financing, large companies are free to make various investments that can benefit the company, including investments in information technology. Brynjolfsson & Hitt's (2000) research which said that companies that invest in information technology tend to have better performance compared to companies that do not invest in information technology.

H3: Information Technology Investment strengthens the relationship between firm size and performance to the performance of companies in the Retail Non-Primary Consumer Goods Sector (consumer cyclical) listed on the Indonesia Stock Exchange (IDX).

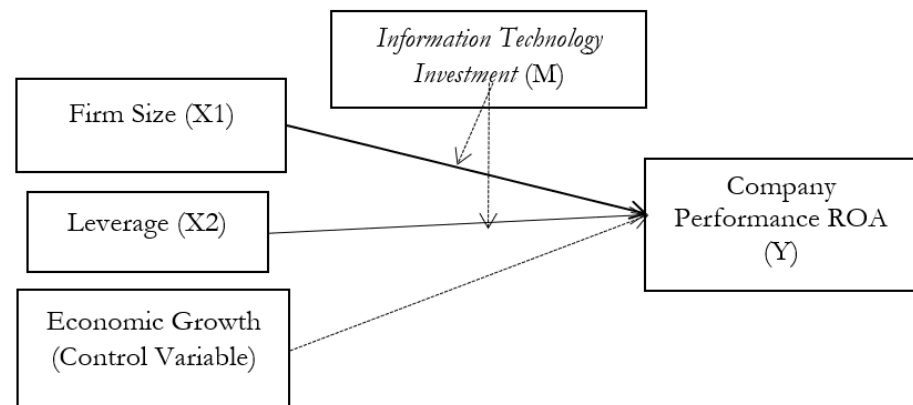
The Effect of Information Technology Investment on Leverage

Companies that invest in information technology tend to be more innovative in producing new products and services. Not only that, companies that use information

technology are more efficient in their operational activities. This innovation and efficiency can increase the company's revenue or profit, thereby reducing the negative impact of high leverage.

H4: Information Technology Investment weakens the relationship between leverage and performance on the performance of companies in the Non-Primary Consumer Goods Sector (consumer cyclical) listed on the Indonesia Stock Exchange (IDX).

Research Conceptual Framework



Picture 1. Research Conceptual Framework

3. Method

This research is a quantitative research with a deductive approach. Quantitative research is research that involves collecting data in the form of numbers and then analyzing them statistically to test hypotheses or answer certain research questions (Kent, 2020) [8]. The object of this research is a company in the non-primary consumer goods sector (consumer cyclical) listed on the Indonesia Stock Exchange (IDX) in 2021-2023. The population of this study is all companies in the non-primary consumer goods sector (consumer cyclical) listed on the Indonesia Stock Exchange (IDX) in 2021-2023.

The samples in this study were taken through purposive sampling techniques with the following criteria:

1. Non-Primary Consumer Goods Sector Companies (Consumer Cyclical) Go Public listed on the Indonesia Stock Exchange (IDX)
2. Companies (issuers) that have issued financial statements and annual reports consecutively and have been audited from 2021 to 2023.
3. Companies that present the company's financial statements in Rupiah (Rp) currency units.
4. Companies that present complete data and are related to research variables and in accordance with research needs.

Based on these criteria, a sample of 85 companies in the consumer cyclical sector listed on the IDX was obtained.

Table 3. Variable Operational Definitions

No	Variable	Variable Definition	Indicator	Data source
1	Firm Size (X1)	Firm Size is a big or small picture of a company.	$Size = \ln Total Assets$	Corporate Financial Statements on the IDX
2	Leverage (X2)	Leverage is the amount of debt that a company uses to fund its capital structure.	$DAR = \frac{Total Debt}{Total Assets}$	Corporate Financial Statements on the IDX
3	Information Technology Investment (M)	Information Technology Investment is a decision to invest in allocate all kinds of resources to manage information systems	$IT Disclosure Index (\%) = \frac{Total score achieved}{Maximum otal score} \times 100\%$	Company Annual Report
4	Company Performance (Y)	Company Performance is the result or achievement of the company from the operational activities and use of resources owned by the company in a certain period that reflects the company's condition.	$ROA = \frac{Net Profit}{Total Assets}$	Corporate Financial Statement on the IDX
5	Economic Growth (control variable)	Economic growth is the improvement of a country's economy that reflects the macroeconomic state of a country.	$Economic Growth = \frac{(PDB this year - PDB the year before)}{\times 100\%}$	Central Statistics Agency (BPS)

The data analysis technique was carried out using SPSS (Statistical Package for the Social Sciences) software. The data analysis techniques used in this study consist of:

1. Descriptive Statistics
2. Classic Assumption Test
3. Multiple Linear Regression Analysis

$$ROA = \alpha + \beta_1 FS + \beta_2 LEV + \beta_3 EG + e$$
4. Moderated Regression Analysis (MRA)

$$ROA = \alpha + \beta_1 FS + \beta_2 LEV + \beta_3 ITI + \beta_4 (FS * ITI) + \beta_5 (LEV * ITI) + \beta_6 EG + e$$
5. Hypothesis Test
6. Coefficient of Determination

4. Results and discussion

Descriptive Statistics

Descriptive statistics were carried out to see the character of each research variable. The following are the results of descriptive statistics in this study.

Table 4. Descriptive Statistics of Research Variable

Variable	Minimum	Maximum	Mean	Std. Deviation
<i>Firm Size</i> (FZ)	22.88	31.77	27.7730	1.77778
<i>Leverage</i> (LEV)	.00	117.38	2.4113	11.75291
<i>Information Technology Investment</i> (ITI)	.00	1.00	.4244	.23713
<i>Economic Growth</i> (EG)	.10	.12	.1063	.01049
Kinerja Perusahaan (Y)	-9.50	4.69	-.0937	.89147

Based on Table 3, it can be seen that the average ROA of consumer cyclical sector companies listed on the Indonesia Stock Exchange is -0.0937. The highest ROA value of 4.69 is owned by PT Trikonsel Oke Tbk. in 2022. While the lowest ROA value is owned by PT. Globe Kita Terang Tbk. in 2023 is -9.50 of its total assets or assets. The standard deviation value of ROA of 0.89147 is greater than the average ROA, indicating that there is a high variation between companies in the consumer cyclical sector.

The average firm size in the consumer cyclical sector is 27.77. The largest firm size is 31.77 in the company Indomobil Sukses International Tbk. in 2023. Meanwhile, the lowest value is 22.88 in the company Globe Kita Terang Tbk. in 2023. The standard deviation value of 1.78 indicates that the spread of the company's firm size is relatively small, but there is still variation in the size of the company.

The consumer cyclical sector has an average leverage of 2.41. The lowest leverage value of 0.00 is PT. Meanwhile, the highest leverage value was 117.38 in PT. Globe Kita Terang Tbk. in 2023. The standard value of leverage deviation of 11.75, which is much larger than the average, indicates that there is a very high diversity in the use of debt in the consumer cyclical sector.

The average value of the company's IT investment in the consumer cyclical sector is 0.4244 or 42.44%. The lowest IT investment value of 0.00 is in the company PT. Bukit Uluwatu Villa Tbk in 2023. The highest ITI value of 100.00 or 100% in the company Mitra Pinasthika Mustika Tbk. in 2022. The standard deviation value of the company's ITI in the consumer cyclical sector is quite high, which is 0.2371 or 23.71%, this means that the variation between companies is also quite large, where there are companies that are very open in disclosing IT information, and some are very minimal.

The average economic growth during the observation period was 0.1063. The lowest value is 0.10 and the highest is 0.12. The standard deviation of economic growth is 0.01049, this means that the variation in economic growth is relatively small.

Classic Assumption Test

To test the accuracy of the data, Ghazali (2018) explained that it is necessary to carry out several classical assumption tests, namely normality tests, multicollinearity tests, heteroscedasticity tests, and autocorrelation tests. The normality test is performed to see whether the dependent variables and independent variables are normally distributed or not. The normality test used in this study was a statistical test with Kolmogorov-Smirnov. To overcome abnormal data, outlier data must be eliminated. Outlier data is extreme observation data and is far different from other observations (Makulau et al. 2010) with a standardized residual value of ≥ 2.5 (Mangeka & Rahayu, 2020). Detection of outlier data is carried out with casewise diagnostic. The results showed 35 outlier data, bringing the research data to 220. The following are the results of the normality test in this study.

Table 5. Normality Test Results

One-Sample Kolmogorov-Smirnov Test	
Unstandardized Residual	
N	220
Test Statistic	0.033
Asymp.Sig. (2-tailed)	0.200 ^d

Source: SPSS output (generated data)

After the outlier data is discarded, it can be seen in Table 4 that the normality test results show a significance value of 0.200 which statistically the value is greater than 0.05, thus indicating that the residual is normally distributed.

The Multicollinearity test is carried out to test whether the regression model finds a correlation between independent variables or not. Multicollinearity can be seen from the tolerance value and variance inflation factor (VIF), with a cutoff tolerance (T) value of > 0.10 or a VIF value of < 10 (Ghozali, 2018). The following are the results of the multicollinearity test on the research data.

Table 6. Multicollinearity Test Results

	Variable	Tolerance	VIF
1	Firm Size (FZ)	0.832	1.202
	Leverage (LEV)	0.491	2.035
	IT Investment (ITI)	0.665	1.505
	Economic Growth (EG)	0.992	1.008

Source: SPSS output (generated data)

Based on Table 5, it can be seen that the tolerance value (T) is greater than 0.1 and the VIF is smaller than 10. Therefore, it can be concluded that the regression model with ROA as a dependent variable does not experience multicollinearity between all its independent variables.

The Heteroscedasticity test is a test that is carried out with the aim of seeing whether in the regression model there is a variance disparity from one residual observation to another. Ghozali (2018) explained that a good regression model is a model with the same or homogeneous residual value (homoskedasticity). To test the heteroscedasticity of the research data, a glacier test was carried out. The significance limit of the glycemic test is 0.05, where if the significance value is > 0.05 , it means that there is no heteroscedasticity. The following are the results of the heteroscedasticity test on the research data.

Table 7. Results of Heteroscedasticity Test with Glejser Test

	Variable	Sig.
1	(Constant)	0.112
	Firm Size (FZ)	0.427
	Leverage (LEV)	0.597
	IT Investment (ITI)	0.608
	Economic Growth (EG)	0.329

Source: SPSS output (generated data)

In Table 6, the significance value of all independent variables of the study is > 0.05 , thus showing that there is no heteroscedasticity.

The Autocorrelation test is a test conducted to assess whether in the linear regression model there is a correlation between the disruptive error in the t period and the disruptive error in the $t-1$ period (previously). A good model is one that is free of autocorrelations. To detect autocorrelation in the research data, the Durbin Watson (DW) test was performed. Where if $du < dw < 4 - du$ means that there is no autocorrelation. Table 7 shows the results of the autocorrelation test on the research data.

Table 8. Autocorrelation Test Results

Type	R	RSquare	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	0.990 _a	0.981	0.980	0.04832	1.219

Source: SPSS output (generated data)

The results of the autocorrelation test in Table 7 show a DW value of 1.219 with a dL value of 1.75161 and a dU value of 1.80686 where this value is below the dL value, so it can be concluded that a positive autocorrelation occurs. So, to overcome autocorrelation in this data, the Cochrane Orcutt trial was carried out. This is because the Cochrane Orcutt test can overcome autocorrelation in regression models (Aprianto et al., 2020).

Table 9. Cochrane Orcutt Trial Results

Type	R	RSquare	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	0.993 _a	0.986	0.985	0.04439	1.955

Source: SPSS output (generated data)

The results of the Cochrane Orcutt test shown in Table 15, show a DW value of 1.955, which is greater than the dL value of 1.75161 and the dU value of 1.80686. This result shows that the $dU < DW < 4 - dL$ is $1.75161 < 1.955 < 2.045$, so it is concluded that there is no autocorrelation.

Multiple Regression Analysis

Multiple linear regression analysis is used to determine the direction and extent of the influence of independent variables on dependent variables (Ghozali, 2018). The following are the results of the multiple linear regression test on the research data.

Table 10. Results of Multiple Linear Regression Analysis

Type		Unstandardized Coefficient		Standardized Coefficient	t	Sig
		B	Std. Error	Beta		
1	(Constant)	-0.390	0.066		-5.945	<0,001
	Firm Size (FZ)	0.015	0.002	0.077	7.702	<0,001
	Leverage (LEV)	-0.068	0.001	-0.971	-97.245	<0,001
	Economic Growth (EG)	0.010	0.319	0.000	0.033	0.974

Source: SPSS output (generated data)

Based on the results of data processing shown by Table 9, the multiple linear regression equation can be formulated as follows.

$$ROA = -0,390 + 0,015(FZ) - 0,068(LEV) + 0,010(EG) + e$$

Based on this equation, the value of the constant coefficient is -0.390, indicating that if independent factors, namely firm size and leverage (LEV) that affect the performance of the company proxied through ROA, then the value of the company's performance is estimated to be -0.390. The value of the firm size coefficient (Firm Size) is 0.015 indicating a positive value. This means that every 1 unit increase in the firm's size (Firm Size) will increase the firm's performance by 0.015 units assuming other variables are constant. The value of the leverage coefficient (LEV) in Table 16 is -0.068 indicating a negative value. This shows that every time the leverage increases by 1 unit, the performance of the company proxied through ROA will decrease by -0.068 assuming the other variables are constant. The value of the economic growth coefficient (Economic Growth) based on Table 16 is 0.010 with a positive value. This indicates that for every 1 unit increase in economic growth, the company's performance will also increase by 0.010 units, assuming the other variables are constant.

Moderate Regression Analysis Test

Moderate Regression Analysis (MRA) is a test that is carried out to determine the role of moderation variables in research. This test was used by researchers to see if the relationship between independent variables and dependent variables (becoming stronger or weaker) after the moderation variable was added. If the significance value < 0.05 , it means that there is a significant moderation effect. On the other hand, if the significance value > 0.05 , this indicates a significant moderation role. The following are the results of the MRA test on the research data.

Table 11. Moderated Regression Analysis (MRA) Test Results

Type		Unstandarized Coeficient		Standarize d Coeficient	t	Sig
		B	Std.Error	Beta		
1	(Constant)	-0.154	0.114		-1.351	0.178
	Firm Size (FZ)	0.006	0.004	0.032	1.611	0.109
	Leverage (LEV)	-0.066	0.001	0-.947	-45.756	<0,001
	IT Investment (ITI)	-0.435	0.238	-0.304	-1.828	0.069
	Economic Growth (EG)	-0.053	0.311	-0.002	-0.170	0.865
	Firm Size & ITI	0.017	0.008	0.350	2.025	0.044
	Leverage & ITI	-0.007	0.005	-0.031	-1.494	0.137

Source: SPSS output (generated data)

Based on the results of the MRA test shown in Table 17, the following equation can be formulated.

$$ROA = -0,154 + 0,006(FZ) - 0,066(LEV) - 0,435(ITI) + 0,017(FZ * ITI) - 0,007(LEV * ITI) + 0,053(EG) + e$$

From the equation that has been formulated, the interaction between firm size and IT Investment (FZ*ITI) has a significance value of 0.044, this value is smaller than 0.05 (significant) and shows a positive value. This value indicates a significant moderation in the interaction between firm size and IT Investment (ITI). The interaction between leverage and IT Investment (LEV*ITI) shows a significance result of 0.137, this value is greater than 0.05 (insignificant). This value indicates that there is no moderation relationship in leverage interaction with IT Investment.

Hypothesis Test

Partial Test (t-test)

The first hypothesis (H1) in this study is "Firm Size has a positive and significant effect on the performance of companies in the Non-Primary Consumer Goods Sector (consumer cyclicals) listed on the Indonesia Stock Exchange (IDX)". Based on Table 9, the value of the Firm Size coefficient is 0.015 which shows a positive value, the calculation value is 7.702 and the significance is $< 0.001 < 0.05$. This means that firm size has a positive and significant effect on the performance of companies proxied by ROA in the consumer cyclicals sector. So it can be concluded that **H1 was accepted**.

The second hypothesis (H2) in this study is "Leverage has a negative and significant effect on the performance of companies in the Non-Primary Consumer Goods Sector (consumer cyclicals) listed on the Indonesia Stock Exchange (IDX)". Based on Table 9, the value of the leverage coefficient is -0.068 which indicates a negative value, the calculation value is -97.245 and the significance is $< 0.001 < 0.05$. This means that Leverage has a negative and significant effect on the performance of companies proxied by ROA in the consumer cyclicals sector. So it was concluded that **H2 was accepted**.

The third hypothesis in this study is "Information Technology Investment strengthens the relationship between firm size and performance to the performance of companies in the Retail Non-Primary Consumer Goods Sector (consumer cyclicals) listed on the Indonesia Stock Exchange (IDX)". Based on Table 10, the significance value of the interaction between Firm Size and ITI (FZ*ITI) is 0.044 with a positive value. This value is less than 0.05 (signify). This means that there is a positive (strengthening) and significant moderation between the interaction of firm size (Firm Size) and IT Investment (ITI) in the consumer cyclicals sector. So it was concluded that **H3 was accepted**.

The fourth hypothesis in this study is "Information Technology Investment weakens the relationship between leverage and performance on the performance of companies in the Non-Primary Consumer Goods Sector (consumer cyclicals) listed on the Indonesia Stock Exchange (IDX)". Based on Table 10, the significance value of leverage interaction with IT Investment (LEV*ITI) is 0.137, where this value is greater than 0.05 (insignificant). This means that there is no significant moderation between leverage interaction (LEV) and IT Investment (ITI) in the consumer cyclicals sector. So it was concluded that **H4 was rejected**.

Simultaneous Test (Test f)

Simultaneous studies (Test F) are carried out with the aim of showing whether all independent variables together have an influence on the bound (dependent) variables.

Table 12. Results of the F Test Multiple Linear Regression Analysis

Type	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	25.301	3	8.434	3418.649	<0,001 b
Residual	0.533	216	0.002		
Total	25.834	219			

Source: SPSS output (generated data)

Table 13. F Moderated Regression Analysis (MRA) Test Results

Type	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	25.337	6	4.223	1808.737	<0,001 b
Residual	0.497	213	0.002		
Total	25.834	219			

Source: SPSS output (generated data)

From Table 10 and Table 11, it can be seen that the significance value of ROA as a dependent variable in the study is < 0.001 , where this value is < 0.05 . This means that there is a significant influence of all independent variables together on the dependent variables. So it was concluded that this research is worthy of testing.

Coefficient of Determination Test (R^2)

The determination coefficient test was carried out with the aim of assessing how far the model is able to explain the variation of dependent variables. The following are the results of the coefficient of determination of research data.

Table 14. Determination Coefficient (R^2) Test Results for Multiple Linear Regression Analysis

Type	R	RSquare	Adjusted R Square	Std. Error of the Estimate
1	0.990 ^a	0.979	0.979	0.04967

Source: SPSS output (generated data)

Table 15. Determination Coefficient (R^2) Test Results for Moderated Regression Analysis

Type	R	RSquare	Adjusted R Square	Std. Error of the Estimate
1	0.990 ^a	0.981	0.980	0.04832

Source: SPSS output (generated data)

Based on Table 20, the value of Adjusted R Square (R^2) for multiple regression analysis is 0.979. This means that the independent variables in this study, namely firm size and leverage, affect the performance of companies proxied with ROA of 97.9% and the remaining 21% are determined by other variables that are not studied in this study. Meanwhile, Table 21 shows the Adjusted R Square (R^2) on the Moderated Regression Analysis (MRA) of 0.981, which means that the independent variables of firm size and leverage as well as the Moderation variable of Information Technology Investment in this study affect the performance of companies proxied with ROA of 98.1%, the remaining 19% is influenced by other variables that are not studied in this study.

The Effect of Firm Size on the Performance of Non-Primary Consumer Goods Sector Companies (Consumer Cyclicals) Listed on the Indonesia Stock Exchange

Based on the results of the research data processing, it is known that the Firm Size (FZ) coefficient has a positive value of 0.015, a tcal value of 7.702 and a significance of $< 0.001 < 0.05$. This means that firm size has a positive and significant effect on the performance of companies proxied by ROA in the consumer cyclicals sector. So it can be concluded that H1 is accepted. H1 was accepted because the results of data processing can prove that firm size has a positive and significant influence on the performance of companies in the consumer cyclicals sector listed on the Indonesia Stock Exchange (IDX). The results of this study are in line with the research of Nasir (2021) who stated that firm size has a significant positive effect on company performance. This means that the larger the size of a company, the company's performance will also increase, and vice versa.

The results of this study are also supported by the Resource Based View (RBV) theory which states that large companies have more internal resources such as superior assets, technology, and human resources that can be mobilized to increase efficiency and innovation (Barney, 1991).

The Effect of Leverage on the Performance of Non-Primary Consumer Goods Sector Companies (Consumer Cyclicals) Listed on the Indonesia Stock Exchange

Based on the statistical data obtained in the processing of the research data, it is known that the value of the leverage coefficient is -0.068 with a calculation value of -85,968 and the

significance is $< 0.001 < 0.05$. This shows that Leverage has a negative and significant effect on the company's performance and H2 is accepted. The reason why H2 was accepted is because the results of statistical data processing can prove that leverage has a negative and significant effect on the performance of companies in the consumer cyclicals sector listed on the Indonesia Stock Exchange (IDX). Where this result is in line with the research of Erawati & Wahyuni (2019) which states that Leverage has a negative effect on company performance because it provides great risk for the company. Leverage has a significant negative effect on the company's performance, meaning that if the company uses low debt, the company's performance will increase, and vice versa.

This result is consistent with the trade off theory which states that the use of large amounts of debt will incur interest expenses that suppress net profit and increase the risk of bankruptcy if not offset by good risk management (Kraus & Litzenberger, 1973). In addition, research by Budiadnyani et al., (2023) also states that high leverage without the right financing strategy will negatively impact profitability and pressure finances until finally company performance.

The Influence of Information Technology in Moderating the Influence of Firm Size on the Performance of Non-Primary Consumer Goods Sector Companies (Consumer Cyclicals) Listed on the Indonesia Stock Exchange

Based on the results of data processing, it is known that the significance value of the interaction between Firm Size and ITI (FZ*ITI) is 0.044 with a positive value. The results of this statistic show values smaller than 0.05, (significant). This positive and significant value means that Information Technology Investment (ITI) strengthens the influence of firm size on the performance of companies in the consumer cyclicals sector listed on the Indonesia Stock Exchange (IDX). Where it can be concluded that H3 is accepted. The results of this study are in line with the research of Dandago et al. (2012), Campbell (2012), and Kohli et al. (2012) which stated that information technology investment has a positive influence on company performance. These results show that companies with large sizes will benefit even more if they also make optimal investments in information technology.

This result is in line with the theory of Resource Based View (RBV), which states that companies with strategic resources such as information technology will have a competitive advantage if they are able to integrate them efficiently in business processes. According to Handoyo et al., (2023), large companies have structures that allow companies to adopt information technology efficiently, resulting in improved company performance.

The Influence of Information Technology in Moderating the Influence of Leverage on the Performance of Companies in the Non-Primary Consumer Goods Sector (Consumer Cyclicals) Listed on the Indonesia Stock Exchange

Based on the results of statistical testing of research data, the significance value of leverage interaction with IT Investment (LEV*ITI) was $0.137 > 0.05$ (insignificant). This shows that there is no significant moderation between leveraged interaction (LEV) and IT Investment (ITI). So it was concluded that H4 was rejected. The reason is because the statistical results show a value greater than 0.05 which is not significant, so there is no role of Information Technology Investment (ITI) moderation in affecting the relationship between leverage and the performance of companies in the consumer cyclicals sector listed on the Indonesia Stock Exchange (IDX).

These results are in line with research by Fitri & Putra (2022) which found that IT investment does not moderate the relationship between leverage and financial performance, especially if high leverage has limited the company's ability to allocate funds optimally. In the theory of trade-off, it is also explained that there is an optimal limit in the use of debt, because of the high risk of interest expense and bankruptcy, so that when leverage exceeds the optimal limit, the benefits of information technology alone are not strong enough to offset the financial pressure produced.

5. Conclusion

This research was conducted with the aim of finding out how the effect of firm size and leverage on company performance with Information Technology Investment as a moderation variable in companies in the consumer cyclicals sector listed on the Indonesia Stock Exchange

(IDX) from 2021 to 2023. In this study, the company's performance was measured through the Return On Asset (ROA) value. Based on data processing and analysis, it can be concluded that firm size has a significant positive effect. Leverage has a significant negative effect on the company's performance. Information Technology Investment (ITI) strengthens the relationship between firm size and company performance. Information Technology Investment (ITI) does not moderate the relationship between leverage and company performance proxied through ROA in companies in the consumer cyclical sector in 2021-2023.

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