



# The Effect of Leverage on Company Value in Consumer Goods Industry Companies

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**Abstract.** The industrial sector, including consumer goods, is currently one of the sectors contributing significantly to Indonesia's economic growth. To compete with similar companies, managers must make the right decisions, most notably financial ones. The companies are expected to choose the best option of resources to be funded to achieve the right balance between cost efficiency and maximizing the firm value that will increase earnings for the shareholders. Leverage plays an essential role in maximizing firm value. This research mainly analyzes the relationship between working financial leverage and firm value for a sample of 30 Indonesian Stock Exchange-listed companies from the consumer goods sector. In addition, this research also examines the relationship between the control variable (profitability, working capital management, sales growth, inflation, interest coverage ratio, and firm size) and firm value, along with the impact of profitability on the leverage-firm value relationship. The data analysis method used is panel data regression analysis. The tests used are the Chow Test, Hausman Test, Lagrange Multiplier Test, Classic Assumption Test (Normality et al.), T-test, and F-Test. The results show as follows: (1) if we consider the control variable simultaneously, the leverage is significantly positively related to the firm value before reaching the firm's optimal capital structure. (2) still, with the consideration of the control variable simultaneously and with the moderation of profitability, leverage is significantly negatively related to the firm value, or it means that after reaching high profitability, an increase in leverage will reduce the firm value. This research implies that the results/findings can provide insight into the finance managers, investors, and financial institutions or lenders' decisions related to leverage about the firm value.

**Keywords:** Financial Leverage, Firm Size, Firm Value, Profitability, Working Capital.

## 1 Introduction

The industrial sector is one of the sectors significantly contributing to Indonesia's economic growth. BPS data in 2019 showed that the industrial sector contributed 19.7%, including the consumer goods industry. Consumer goods is a general term for any product or service purchased primarily for personal, family, or household use, such as clothing, groceries, or toys intended to satisfy human wants and needs through direct consumption or use [1]. In addition, all goods produced to meet the community's needs are consumer goods [2].

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People's purchasing power strongly influences the consumer goods industry sector. The number of competitors for similar products also impacts the company. This situation put the company in a situation where they must be able to compete with similar companies to gain market through the development of appropriate management to improve product quality, provide valuable facilities for users, and increase customer trust [3]. To be able to do this, companies need to prepare a budget. For several reasons, capital budgeting decisions are critical to a company's success [4]. Cost is a crucial part of the company, where one component is the cost of production, marketing costs, and costs for distribution. [3]. In a competitive modern business, a company's financial decisions affect its performance [5]. Companies face important decisions in terms of finance, one of which is debt policy or the choice of capital structure because of the company's value [6]. From a financial management perspective, the company's goal is to maximize firm value or performance, which also means maximizing shareholder wealth, so this must be the basis for all decision-making [7]. High company value is the company's goal because it reflects the ability to provide welfare for shareholders, which reflects more substantial stock market prices [8]. Financial managers are expected to choose the best option for the given resources to be funded and achieve the right balance to reduce costs and increase income for shareholders [9].

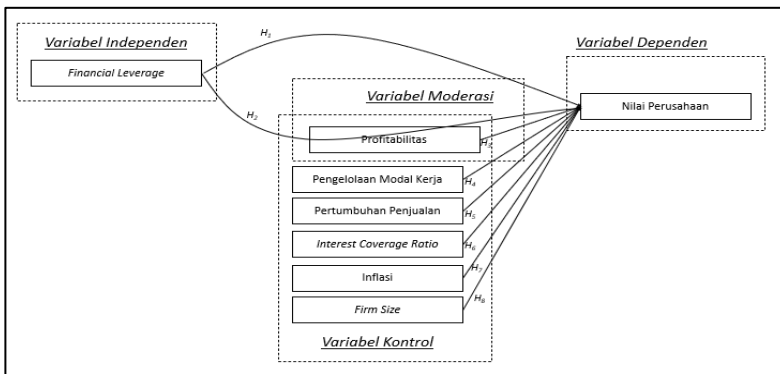
Funding through debt can also generate financial risk, an additional risk that ordinary shareholders bear due to the decision to finance through debt [10]. Firms with capital structures that are heavily indebted may need more funds for day-to-day operations [11]. In addition, during a market downturn, a debt-free company will have no additional debt burden. It may recover faster than a company dealing with slowing and declining sales growth and carrying debt burdens over an extended period. It will, therefore, outperform its peers. Their partners are from companies whose funding comes from debt [12]. By looking at the critical role of the consumer goods industry sector in the Indonesian economy and the importance of using debt for companies concerning company value, it is necessary to research how leverage has a relationship with company value in consumer goods companies in Indonesia. Previously, research has been conducted by [9] regarding leverage on company performance in companies included in the Karachi Stock Exchange 100 index from 2005 - 2014. This study shows that leverage can have a significant or insignificant effect on company performance. Specifically, this study uses Tobin's Q variable to represent the company's performance, which is significantly influenced by the capital structure variables, namely debt to capital and debt to equity, as well as sales growth variables. Based on the results of this study, it is essential to conduct similar research, so this research is entitled "The Effect of Leverage on Firm Value in Consumer Goods Industrial Sector Companies Listed on the Indonesia Stock Exchange." The difference or novelty of this research from previous research is that this research will focus on consumer goods companies in Indonesia. Consumption, and the future of green consumer behavior.

## 2 Literature Review

Financial management aims to maximize the value of the company. Companies that run smoothly will have an increased share value. On the other hand, if the company operates with obstacles, the value of the company's shares will decrease drastically because cred-

itor rights are prioritized [13]. The theory of capital structure about the value and performance of the company is already a problem that needs to be clarified in corporate finance [14].

Several studies have investigated factors influencing firm value, including size, profitability, debt, and investment opportunities. [15]. Firm value is influenced by financing decision factors, dividend policy, and external factors, including foreign exchange rates, inflation rates, political situations, economic growth, and market psychology [13]. In connection with the company's goal to obtain good corporate value, investors generally leave it to professionals to fill the positions of managers or commissioners in managing the company. Agency conflicts between shareholders and management and between shareholders and debt holders result in substantial agency costs for the company and the economy. Agency costs arise from the conflict of interest between management and shareholders when ownership and control of the company are separated. In this condition, self-serving managers enjoy excessive consumption of salaries and perks and tend to expand the company to increase their compensation and reputation at the expense of shareholders rather than make decisions to maximize firm value. [16]. Therefore, debt issuance can reduce agency costs, ultimately impacting the company's performance by disciplining or spurring managers to prioritize shareholders' interests rather than getting freedom for personal interests [17]. Debt pressures managers by limiting their actions and pressuring them to perform well and generate cash flow to repay the debt [18]. Financial leverage is the degree to which a company has funded its business operations through external resources, where there is an opportunity to finance operations and expansion from the additional available capital compared to a business that only relies on equity [9]. Debt must be repaid, which is also related to the ease with which companies can obtain debt capital in conditions of a more extended debt re-payment period and fewer re-payment reserves [10]. High debt results in companies using some of their profits as capital costs and increasing company costs. [19]. The increased debt financing during the financial crisis indicates that debt financing makes companies more vulnerable to the risk of refinancing and borrowing at higher costs, reducing their performance. [20]. Using debt excessively tends to result in high bankruptcy costs, which can negatively affect performance [6].



**Fig. 1.** Conceptual framework.

Based on the description above, the hypothesis of this research becomes as follows.

H1: There is an influence between financial leverage on firm value

H2: There is an influence between leverage, which is influenced/moderated by profitability on firm value

H3: There is an influence between profitability on firm value

H4: There is an influence between working capital management on firm value

H5: There is an influence between sales growth on firm value

H6: There is an influence between interest coverage ratio on firm value

H7: There is an influence between inflation on firm value

H8: There is an influence between firm size and firm value

### 3 Methods

This research design uses a quantitative research approach. This research is based on problems to be reviewed from the existing theory and compared with the results of previous studies to build a conceptual framework. This study aims to find and examine the factors that influence the firm value of consumer goods companies listed on the Indonesia Stock Exchange in the 2013-2018 period. This study analyzes the relationship between leverage, which is influenced by profitability, working capital management, growth sales, interest coverage ratio, inflation, and firm size as independent variables (free) and the control variable on firm value as the dependent variable (bound).

**Table 1.** Research variable.

Description	Variable	Code	Measurement
Dependent Variable	Company Value	TOBIN SQ	$TOBINSQ = \frac{\text{Market value of equity} + \text{book value of debt}}{\text{book value of assets}}$
Independent Variable	Leverage	LEV	$LEV = \frac{\text{Total Debt}}{\text{Total Asset}}$
	Leverage yang dipengaruhi/dimoderasi oleh profitabilitas	LEVxROA	
Control Variable	Profitability	ROA	$ROA = \frac{\text{Net Income}}{\text{Total Asset}}$
	Working Capital Management	CCC	$CCC = \frac{\text{Account Receivables}}{\text{Sales}/365} + \frac{\text{Inventories}}{\text{COGS}/365} - \frac{\text{Account Payables}}{\text{COGS}/365}$

	Sales Growth	GROWTH	$GROWTH = \frac{\text{Penjualan tahun penelitian}}{\text{Penjualan tahun sebelumnya}} - 1$
	Inflation	INF	
	Interest Coverage Ratio	ICR	$ICR = \frac{EBIT}{\text{Interest Expense}}$
	Firm Size	SIZE	In TOTAL ASSETS

This study uses a purposive sampling technique, namely sampling, by determining unique characteristics that are adjusted based on the research objectives of sampling. The population in this study was consumer goods companies with the following criteria:

1. Listed on the Indonesia Stock Exchange.
2. Active in trading on the stock exchange
3. The financial statements use Rupiah.

#### 4 Results and Discussion

An overview of the sample of this study can be seen from the statistics.

	TOBINSQ	LEV	ROA	CCC	GROWTH	INF	ICR	SIZE
Mean	3.443432	0.415968	0.105797	132.4860	0.077054	0.049506	233.4470	28.60149
Median	1.744812	0.387588	0.077831	104.3410	0.071200	0.050860	4.901998	28.17713
Maximum	23.28575	1.248573	0.925050	483.9795	1.273150	0.064125	10860.89	32.20096
Minimum	0.420624	0.069175	-0.209228	-24.83663	-0.437574	0.031983	-7.695688	25.32766
Std. Dev.	4.201265	0.199239	0.142911	93.85514	0.184858	0.014545	1199.322	1.657279
Skewness	2.375965	0.850219	1.885654	1.053829	2.975530	-0.043962	7.332385	0.386746
Kurtosis	8.472135	4.585944	9.664309	4.059409	21.20916	1.059990	58.86648	2.433255
Jarque-Bera	393.9382	40.55028	439.7684	41.73431	2752.416	28.28526	25020.89	6.896175
Probability	0.000000	0.000000	0.000000	0.000000	0.000000	0.000001	0.000000	0.031806
Sum	619.8178	74.87430	19.04350	23847.47	13.86976	8.911053	42020.45	5148.268
Sum Sq. Dev.	3159.462	7.105584	3.655828	1576773.	6.116843	0.037868	2.57E+08	491.6367
Observations	180	180	180	180	180	180	180	180

(Source: Eviews Software Processing Results)

#### Hypothesis Test

Hypothesis testing in this study uses *the Eviews* method with the following decision-making basis:

- a. If the  $p$ -value  $\leq 0.05$ , then  $H_0$  is rejected ( $H_a$  is accepted), meaning that there is a significant influence between the two variables tested
- b. If the  $p$ -value  $\geq 0.05$ , then  $H_0$  is accepted ( $H_a$  is rejected), meaning that there is no significant influence between the two variables tested.

**Table 2.** Hypothesis test.

Hypothesis	$p$ -value	Decision
H1: There is an influence between financial leverage on firm value	0,0414	Ho rejected (significant positive)
H2: There is an influence between leverage, which is influenced/moderated by profitability on firm value	0,0374	Ho rejected (significant negative)
H3: There is an influence between profitability on firm value	0,0757	Ho accepted
H4: There is an influence between working capital management on firm value	0,5338	Ho accepted
H5: There is an influence between sales growth on firm value	0,8399	Ho accepted
H6: There is an influence between interest coverage ratio on firm value	0,0166	Ho rejected (significant negative)
H7: There is an influence between inflation on firm value	0,8435	Ho is accepted
H8: There is an influence between firm size and firm value	0,0374	Ho rejected (significant negative)

H1 obtained a coefficient of 1.947143, and the probability value is 0.0414, which is  $< 0.05$ . Therefore, based on the 95% confidence level, it can be concluded that  $H_0$  is rejected.

H2 Based on the results of research using the Fixed Effect model, the coefficient is -11.98317, and the probability value is 0.0374, where this value is  $< 0.05$ . Based on the 95% confidence level, it can be concluded that  $H_0$  is rejected.

H3 Based on the results of research using the Fixed Effect model in the Model I test, the coefficient is -0.238019 with a probability value of 0.8907. In the Model II test, the coefficient is 6.502201 with a probability value of 0.0757, where this value is  $< 0.05$ . Therefore, based on the 95% confidence level, it can be concluded that  $H_0$  is accepted.

H4 Based on the results of research using the Fixed Effect model in the Model I test, the coefficient is -0.002283 with a probability value of 0.5591. In the Model II test, the coefficient is -0.002404 with a probability value of 0.5338, where this value is  $> 0.05$ . Based on the 95% confidence level, it can be concluded that  $H_0$  is not rejected.

H5 Based on the results of research using the Fixed Effect model in the Model I test, the coefficient is 0.099682 with a probability value of 0.8892. In the Model II test, the coefficient is -0.144768 with a probability value of 0.8399, where this value is  $> 0.05$ . Based on the 95% confidence level, it can be concluded that  $H_0$  is accepted

H6 Based on the results of research using the Fixed Effect model in the Model I test, the coefficient is -23.16403 with a probability value of 0.0262. In the Model II test, the coefficient is -24.76956 with a probability value of 0.0166, where this value is  $< 0.05$ . Based on the 95% confidence level, it can be concluded that  $H_0$  is rejected

H7 Based on the results of research using the Fixed Effect model in the Model I test, a coefficient of -0.000006 is obtained with a probability value of 0.9572. In the Model II test, a coefficient of 0.000023 is obtained with a probability value of 0.8435, where

this value is  $> 0.05$ . Based on the 95% confidence level, it can be concluded that  $H_0$  is accepted.

H8 Based on the results of research using the Fixed Effect model in the Model I test, a coefficient of -1.643821 is obtained with a probability value of 0.0298. In the Model II test, a coefficient of -1.724026 is obtained with a probability value of 0.0374, where this value is  $< 0.05$ . Based on the 95% confidence level, it can be concluded that  $H_0$  is rejected. Thus, firm size has a significant negative effect on firm value.

## 5 Conclusion and Implication

In general, this study was conducted to determine the effect of leverage and its control variables (profitability, working capital management, sales growth, inflation, interest coverage ratio, and firm size) on firm value in consumer goods industry companies listed on the Stock Exchange. Indonesia (IDX) with a sample of 30 companies

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