

## **Comparison of Leverage, Size, Profitability Before and After The Covid-19 Pandemic in Consumer Goods Companies in Indonesia**

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### **ABSTRACT**

Capital structure is an important financial decision related to the use of debt and equity in financing company assets and operations. The COVID-19 pandemic created economic uncertainty that potentially affected company financial performance. This study aims to examine and compare leverage, firm size, and profitability before and after the COVID-19 pandemic in consumer goods companies listed on the Indonesia Stock Exchange. The research method used in this study is quantitative with a comparative research design. The sampling technique used is purposive sampling with criteria including consumer goods companies listed on the Indonesia Stock Exchange and consistently publishing financial reports during 2019–2020. The analytical method used in this study is the paired sample t-test. Data processing and statistical analysis were carried out using the IBM SPSS program. The results of this study indicate that leverage and firm size show no significant difference between the period before and after the COVID-19 pandemic. However, profitability shows a significant difference between the two periods. These findings indicate that although company funding structure and company scale remained relatively stable, the pandemic had an impact on the ability of companies to generate profits.



## **INTRODUCTION**

Capital structure in corporate finance is a fundamental decision that must be made by management and shareholders, as it relates to the investments the company will make. Watson and Head (2010) state that in maximizing company value, financial managers are faced with two issues: investment decisions and capital structure choices. An appropriate capital structure will maximize the company's financial returns, but an inappropriate one can increase the risk of company losses.

Capital structure indicates the source of asset financing, whether through equity or debt. Some company management adopts a traditional approach, using equity entirely to finance assets and operations, while others combine equity and debt, and some use significant amounts of debt. Leverage is defined as the use of debt to finance specific investments or projects.

Over the decades, several studies and journal articles have been written on capital structure. Modigliani and Miller (1958) provided a perspective on capital structure, stating that, excluding taxes and bankruptcy costs, firm value is unaffected by how the company is financed. Furthermore, capital structure decisions were surveyed by Harris and Raviv (1991), who concluded that, in general, leverage increases with fixed assets, non-debt tax deductions, growth rate, and company size, and decreases with volatility, advertising costs, research and development costs, bankruptcy probability, company profitability, and product uniqueness. Frank and Goyal (2003) examined the relevance of 39 factors in corporate leverage decisions. Baker and Martin (2011) focused on the financial management aspect, namely how capital structure and financing decisions maximize firm value.

Errors in capital structure decisions can have a negative impact on a company. Ouweneel (2020) stated that excessive use of debt as a business practice can create challenges, or worse, an

inability, to access capital quickly and on appropriate terms during times of economic hardship (e.g., COVID-19). Yadaf (2020) revealed that during the COVID-19 pandemic, banks and financial institutions took conservative measures by withholding new loans. As a result, sectors such as the property sector, which has high debt, became stressed due to dried-up cash flow during the pandemic, leading to some bankruptcy. Markowitz (2020) revealed that during 2020, 13 iconic retail businesses in the United States were forced to close due to debt.

Conversely, if company management makes the right capital structure decisions, they will have a positive impact on the company. Alster (2020) in the New York Times revealed that companies that chose not to use debt to fund their projects in 2019 had stronger balance sheets in 2020 compared to other similar companies.

Myers (2001) argues that there is no universal theory regarding debt/equity choices. However, several researchers analyze the determinants of capital structure using several theoretical frameworks, including Pecking Order Theory, Trade-Off Theory, and Market Timing Theory. One of the determinants of capital structure is company characteristics, including company size, company profitability, and company tangibility.

Company size is one of the determinants of capital structure because it is seen as a factor that can influence a company's relationships with external parties, particularly in obtaining loans. Rajan and Zingales (1995) found that leverage increases with firm size, consistent with the Trade-Off Theory. On the other hand, Peterson and Shulman (1987) argued that large firms tend to have lower leverage levels due to their availability of other funding sources.

Firm profitability indicates how well a firm generates profits from its activities. This will influence capital structure decisions, depending on whether management uses the Pecking Order Theory or the Trade-Off Theory. Belkhir et al. (2016) found that firm profitability is negatively correlated with leverage, consistent with the Pecking Order Theory, for Middle Eastern countries. This means that the higher a firm's profitability, the more cash flow from revenue can be used to finance the firm. However, Nawaiseh (2015) used Return on Assets (ROA) and Return on Equity (ROE) as indicators of firm profitability and found that ROE is positively related to leverage in Jordanian firms, consistent with the Trade-Off Theory. This suggests that high firm profitability makes it easier for firms to raise debt.

## **LITERATURE REVIEW**

### **Capital structure**

According to Brigham and Houston (2004), capital structure is the composition or balance between debt and equity used by a company to finance its assets and operations. Capital structure reflects how a company determines the optimal combination of funding sources to maximize its value. Meanwhile, Frank and Goyal (2003) stated that the Leverage ratio can use five definitions, namely 1) Total Debt/Total Assets; 2) Total Long-Term Debt/Total Assets; 3) Total Debt/Market Value of Assets; 4) Total Long-Term Debt/Market Value of Assets; and 5) Inverse interest coverage ratio, namely Interest Expense/Operating Income before Depreciation.

### **Financial Analysis**

Financial analysis is also seen as a crucial tool in business decision-making. Research conducted by Olayinka (2022) states that financial statement analysis is a crucial tool used by companies to assess performance and aid in making more informed investment and financing decisions.

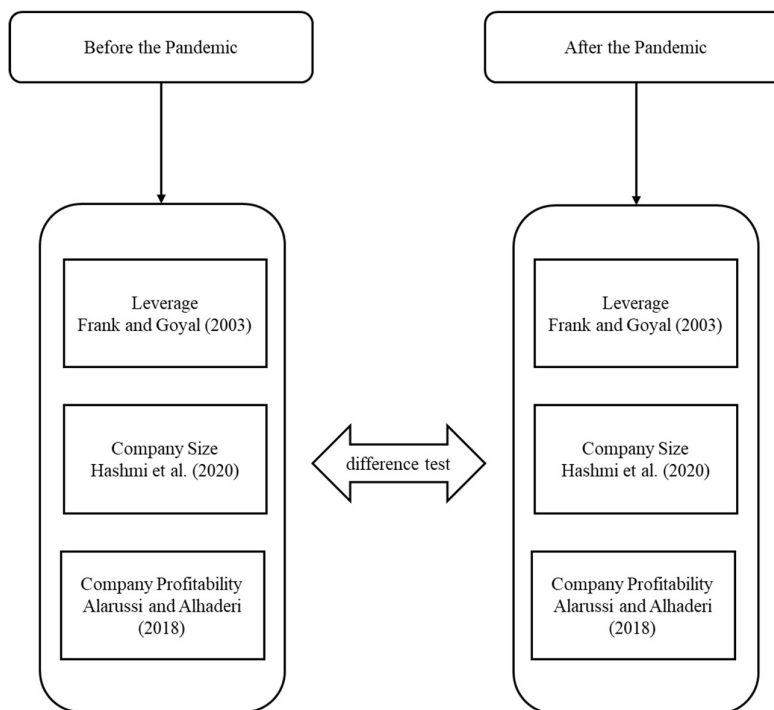
### **Company Size**

According to Dang, Li, and Yang (2018), company size is a concept that describes the scale of a company, typically measured by total assets, total sales, or market capitalization. These three indicators are used to demonstrate the financial strength and scope of a company's operational activities. Furthermore, research by Hashmi et al. (2020) states that company size is a fundamental characteristic of a company frequently used in various empirical studies because it is related to a company's ability to obtain funding, manage investments, and influence company performance.

**Company Profitability**

According to Alshatti (2015), profitability is a company's ability to generate profits from its operational activities, indicating the relationship between the profits earned and the investments used to generate those profits. Profitability also reflects a company's level of efficiency in utilizing its resources to generate profits. Furthermore, according to Alarussi and Alhaderi (2018), profitability can be defined as a company's income earned after deducting all operating costs, interest, and taxes within a given period. Therefore, profitability is an important measure in evaluating the effectiveness of company management in managing resources to generate profits.

From the description of the previous theory, the research model is presented as below:



**Figure 1. Framework**

**RESEARCH METHODS**

**Research Design**

According to Sugiyono (2016: 35) there are two types of research methods, namely quantitative and qualitative research methods. Qualitative research is a research method used to examine the conditions of natural objects where the researcher is the key instrument. Meanwhile, quantitative research methods are methods based on the post-positivism philosophy that can be used to research a population or sample and sampling can use tools or instruments and analysis of the resulting data in statistical form. The method used in this research is quantitative.

**Leverage**

$$\text{LEVERAGE} = \frac{\text{Total Liabilitas}}{\text{Total Asset}}$$

**Company Size**

$$\text{SIZE} = \text{Log Total Sales}$$

**Company Profitability**

$\text{PROFITABILITY} = \frac{\text{EBIT}}{\text{Total Aset}}$
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**Research Design and Scope**

Sekaran and Bougie (2016) define a research design as a blueprint or plan for collecting, measuring, and analyzing data, created to answer research questions. This research design will illustrate whether there are differences in the variables being studied, making the research easier to understand.

The research design used was to analyze whether there were differences in variables before and after the pandemic. In this case, the researchers took several variables, namely Leverage, Company Size, and Company Profitability, in consumer goods companies listed on the Indonesia Stock Exchange from 2019 to 2020. This study used a comparative research design because it presented a comparison of Leverage, Company Size, Company Profitability, and Company Tangibility in 2019 before the pandemic and in 2020 after the pandemic.

**Population and Sample**

The technique used in this study is the purposive sampling method, namely a sampling technique in which samples are selected specifically based on predetermined criteria. Based on this method, the sample selection criteria used in this study are as follows: (1) Consumer goods companies listed on the Indonesia Stock Exchange in 2019–2020; (2) Consumer goods companies that regularly publish quarterly reports in 2019 and 2020; and (3) Consumer goods companies with detailed financial report data according to research needs.

**RESULTS AND DISCUSSION**

**Leverage**

Below are the results of the difference test for Leverage before and after the pandemic.

**Tabel 1. Paired Samples Statistics - Leverage**

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Leverage Before the Pandemic	,4043	72	,17687	,01118
	Leverage After the Pandemic	,3836	72	,15678	,01002

**Paired Samples Correlations**

		N	Correlation	Sig.
Pair 1	Leverage Before the Pandemic & Leverage After the Pandemic	72	,167	,343

Based on the output above, the correlation coefficient is 0.167 with a significance value (sig.) of 0.343. A significance value of 0.343 > 0.05 indicates no relationship between the Leverage variable before and after the pandemic.

**Tabel 2. Paired Samples Test - Leverage**

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval				
					Lower	Upper			
Pair 1	Leverage Before the Pandemic - Leverage After the Pandemic	0.1318	0.34692	0.03891	-0.04575	0.08734	0,859	71	0,568

The hypothesis for Leverage is as follows:

Ho: There is no difference in average leverage before the pandemic and leverage after the pandemic.

Ha: There is a difference in average leverage before the pandemic and leverage after the pandemic.

Decision: Reject Ho if the sig.(2-tailed) value < 0.05

Based on the output table above, the sig. value (2-tailed) is 0.568>0.05, so Ho is accepted and Ha is rejected. Therefore, it can be concluded that there is no difference in average leverage between pre-pandemic and post-pandemic leverage.

### Company Size

Below are the results of the difference test for Company Size before and after the pandemic.

**Table 3. Paired Samples Statistics - Size**

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Size Before the Pandemic	15,5930	72	2,64939	,29239
	Size After the Pandemic	15,4480	72	2,79219	,29923

**Paired Samples Correlations**

		N	Correlation	Sig.
Pair 1	Size Before the Pandemic and Size After the Pandemic	72	,135	,952

Based on the output above, the correlation coefficient is 0.135 with a significance value (sig.) of 0.952. A significance value of 0.952 > 0.05 indicates no relationship between the Size variables before and after the pandemic.

**Table 4. Paired Samples Test - Size**

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval				
					Lower	Upper			
Pair 1	Size Before the Pandemic - Size After the Pandemic	0.25611	336,225	0.37641	-0.49499	0.78499	0,658	71	0,697

The hypothesis for size is as follows:

Ho: There is no difference in the average company size before the pandemic and the company size after the pandemic.

Ha: There is a difference in the average company size before the pandemic and the company size after the pandemic.

Decision: Reject Ho if the sig.(2-tailed) value < 0.05

Based on the output table above, the sig. value (2-tailed) is 0.697>0.05, so Ho is accepted and Ha is rejected. Therefore, it can be concluded that there is no difference in the average size before and after the pandemic.

### Company Profitability

Below are the results of the difference test for Company Profitability before and after the pandemic.

**Table 5. Paired Samples Statistics - Profitability**

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Profitability Before the Pandemic	,0917	72	,08273	,00955
	Profitability After the Pandemic	,0699	72	,06265	,00718

**Paired Samples Correlations**

		N	Correlation	Sig.
Pair 1	Profitability Before the Pandemic & Profitability After the Pandemic	72	,753	,000

Based on the output above, the correlation coefficient is 0.753 with a significance value (sig.) of 0.000. A significance value of  $0.000 < 0.05$  indicates a relationship between the profitability variables before and after the pandemic.

**Tabel 6. Paired Samples Test - Profitability**

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval				
					Lower	Upper			
Pair 1	Profitability Before the Pandemic - Profitability After the Pandemic	0.3279	0.06632	0.00762	0.00982	0.04576	4,443	71	0,002

The hypothesis for Profitability is as follows:

Ho: There is no difference in the average Company Profitability before the pandemic and Company Tangibility after the pandemic.

Ha: There is a difference in the average Company Profitability before the pandemic and Company Tangibility after the pandemic.

Decision: Reject Ho if the sig.(2-tailed) value  $< 0.05$

Based on the output table above, the sig. (2-tailed) value is  $0.002 < 0.05$ , so Ho is rejected and Ha is accepted. Therefore, it can be concluded that there is an average difference between profitability before and after the pandemic.

**Comparison of Research Results Before and After the COVID-19 Pandemic**

1. The results show that Leverage shows no correlation or difference between the averages before and after the COVID-19 pandemic.
2. Size shows no correlation or difference between the averages before and after the COVID-19 pandemic.
3. Profitability shows an influence and difference between the averages before and after the COVID-19 pandemic. Where count  $>$  table ( $40,869 > 3.24$ ) and sig  $<$  alpha ( $0.000 < 0.05$ ) then H0 is rejected and Ha is accepted, then there is a significant influence between capital structure and profitability simultaneously on Firm value.

**CONCLUSION**

Based on the statistical output, the conclusions of the study "Comparison of Leverage, Size, and Profitability Before and After the COVID-19 Pandemic in Consumer Goods Companies in Indonesia" are as follows: This study found that leverage showed no correlation or difference between the average values before and after the COVID-19 pandemic. Size showed no correlation or difference between the average values before and after the COVID-19 pandemic. Profitability showed an influence and difference between the average values before and after the COVID-19 pandemic.

For company management, when making funding decisions, they should consider the company's profitability and tangibility, while maintaining a moderate leverage ratio to ensure it has the ability to repay its debts. Creditors should consider profitability when providing loans, as profitability indicates the company's revenue. Investors should choose companies with a minimal leverage ratio, as the higher the leverage ratio, the greater the risk borne by investors due to the possibility of the company being unable to repay its debts.

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