

COMPARATIVE ANALYSIS OF FINANCIAL PERFORMANCE BEFORE AND AFTER THE COVID-19 PANDEMIC OF FOOD AND BEVERAGE SUB-SECTOR COMPANIES

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Abstrak

Penelitian ini bertujuan untuk menganalisis perbedaan kinerja keuangan perusahaan sub sektor makanan dan minuman yang terdaftar di Bursa Efek Indonesia (BEI) pada periode 2018–2023, khususnya sebelum, saat, dan sesudah pandemi Covid-19. Sampel penelitian mencakup 23 perusahaan dengan total 138 observasi data. Variabel yang digunakan meliputi profitabilitas (ROA, NPM), likuiditas (CR), solvabilitas (DER), dan aktivitas (TATO). Uji normalitas *Shapiro-Wilk* menunjukkan bahwa seluruh data tidak berdistribusi normal, sehingga pengujian hipotesis menggunakan *Wilcoxon Signed Rank Test*. Hasil penelitian menunjukkan bahwa seluruh variabel tidak mengalami perbedaan signifikan antara periode sebelum–saat maupun saat–sesudah pandemi. Temuan ini mengindikasikan bahwa meskipun pandemi memberikan tekanan pada sektor *food and beverage*, perusahaan mampu mempertahankan stabilitas fundamental keuangan melalui strategi adaptif, seperti digitalisasi pemasaran, efisiensi biaya, serta inovasi produk.

Kata Kunci: kinerja keuangan, food and beverage, pandemi Covid-19, Wilcoxon Signed Rank Test

Abstract

This study aims to analyze the differences in financial performance of food and beverage sub-sector companies listed on the Indonesia Stock Exchange (IDX) during the period 2018–2023, specifically before, during, and after the Covid-19 pandemic. The research sample consists of 23 companies with a total of 138 observations. The variables examined include profitability (ROA, NPM), liquidity (CR), solvency (DER), and activity (TATO). The Shapiro-Wilk normality test indicated that all data were not normally distributed; therefore, the Wilcoxon Signed Rank Test was employed to test the hypotheses. The results reveal that there are no statistically significant differences in all variables between the pre-pandemic, during-pandemic, and post-pandemic

periods. These findings suggest that, despite the pressures brought by the pandemic, companies in the food and beverage sector were able to maintain financial stability through adaptive strategies such as digital marketing, cost efficiency, and product innovation.

Keywords: financial performance, food and beverage, Covid-19 pandemic, Wilcoxon Signed Rank Test

A. INTRODUCTION

The food and beverage industry is a manufacturing subsector that makes a significant contribution to the Indonesian economy. Data from the Ministry of Industry (2019) shows that this subsector is a key driver of growth in the non-oil and gas processing industry, contributing significantly to Gross Domestic Product (GDP) and employment. Food and beverage companies also play a crucial role in maintaining national food security, meeting consumer demand, and increasing foreign exchange earnings through exports.

However, since early 2020, the COVID-19 pandemic has caused major disruptions to the global economy, including Indonesia. Restrictions on public activities, reduced consumer purchasing power, and disruptions to raw material supply chains have put pressure on companies' operational performance. Despite this, the food and beverage sector has been relatively resilient compared to other sectors because its products are essential goods. This makes this subsector interesting to study in the context of the pandemic crisis.

A company's financial performance is a crucial indicator for assessing its ability to maintain business continuity. Financial ratios, such as profitability, liquidity, solvency, and activity, are used to measure the effectiveness of a company's resource management (Kasmir, 2018). Financial ratio analysis reveals the company's condition before, during, and after the COVID-19 pandemic. This study uses profitability, liquidity, solvency, and activity ratios as comparisons between before and after the COVID-19 pandemic.

Theoretical review

Signaling Theory

According to Brigham & Houston (2019), signaling theory is closely related to efforts to convey relevant information to external parties to reduce uncertainty and provide assurance regarding a situation. Based on this definition, signaling theory is information that explains how a company presents signals in the form of financial reports to investors.

Financial performance

Financial performance is a snapshot of a company's financial condition, analyzed to identify shortcomings and achievements within a specific period. According to Tyas (2020), financial performance is an analysis conducted to determine the extent to which a company is implementing financial regulations properly and correctly. Meanwhile, according to Hery (2016), financial performance is a formal effort to evaluate a company's efficiency and effectiveness in generating profits and cash flow.

Profitability Ratio

A profitability ratio is a way to demonstrate a company's ability to generate profits. A profitability ratio is a ratio used to assess a company's ability to generate profits. This ratio also provides a measure of a company's management effectiveness (Kasmir, 2016). According to Sujarweni (2021), Return on Assets (ROA) is a ratio that assesses the ability of capital invested in assets to generate net income. Meanwhile, Harahap (2017) states that the net profit margin (NPM) ratio provides an overview of a company's net profit level after deducting all costs, including taxes.

Liquidity Ratio

According to Kasmir (2019), the liquidity ratio, often referred to as the working capital ratio, is a ratio used to measure a company's liquidity. Hersandy et al. (2022) defines liquidity as the ability to meet all obligations that must be paid immediately within a short period of time. The Current Ratio (CR) is a liquidity ratio used to measure a company's ability to meet its short-term obligations using its current assets.

Solvency Ratio

The solvency ratio indicates the extent to which equity is able to cover liabilities to external parties. The lower this ratio, the better the company's financial condition (Harahap, 2018). Mahrani & Triyono (2024) stated that food and beverage companies listed on the IDX showed no significant change in solvency ratios during the pandemic. Although profitability showed differentiation, solvency ratios remained stable. One ratio used to measure solvency is the Debt to Equity Ratio (DER). According to Kasmir (2018), DER is a ratio used to evaluate a company's capital structure by comparing the total amount of debt to total equity.

Activity Ratio

Kasmir (2017) stated that the activity ratio is useful for measuring a company's effectiveness in utilizing its assets, while also evaluating the efficiency of resource management. The higher the activity ratio, the more efficient the company is in managing its assets. Research conducted by Lilik and Burhanudin (2024) showed no significant difference in the activity ratio between the pre-pandemic and post-COVID-19 periods. Kasmir (2016) explained that Total Asset Turnover (TATO) is a ratio that describes the rate of total asset turnover and is calculated by comparing sales value to total assets.

Hypothesis

Based on the theoretical review above, the research hypothesis is formulated as follows:

H1: There is Differences in Profitability Ratios Before and After the Pandemic.

H2: There is Differences in Liquidity Ratios Before and After the Pandemic.

H3: There is Differences in Solvency Ratios Before and After the Pandemic.

H4: There is Difference in Activity Ratio Before and After the Pandemic.

B. METHOD

This research is a comparative quantitative study, comparing the situation before and after the COVID-19 pandemic. The population is 23 food and beverage sub-sector companies listed on

the IDX from 2018 to 2023 via the website www.idx.co.id. The sampling method used non-probability sampling in the form of purposive sampling. The criteria were companies listed on the IDX between 2018 and 2023 that released official financial reports.

C. RESULTS AND DISCUSSION

Normality Test

In this study, each variable has 46 data points. Therefore, the Shapiro-Wilk normality test was used because the sample size was less than 50. This test yielded a significance value (Sig./p-value) compared to a significance level (α) of 0.05. The decision-making criteria were: if Sig. > 0.05, then the data is normally distributed. If Sig. \leq 0.05, then the data is not normally distributed. The results are as follows:

Table 1. Normality Test Results

Shapiro Wilk

	Shapiro-Wilk		
	Statistics	df	Sig.
ROA1	,717	46	,000
CR1	,715	46	,000
DER1	,834	46	,000
TATO1	,797	46	,000
NPM1	,632	46	,000
ROA2	,533	46	,000
CR2	,787	46	,000
DER2	,830	46	,000
TATO2	,891	46	,000

NPM2	,550	46	,000
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a. Lilliefors Significance Correction

Source: SPSS output (2025)

Table 1 shows the results of the Shapiro-Wilk normality test on all financial ratio variables of food and beverage companies before, during, and after the pandemic, showing a significance (Sig.) of 0.000, or less than 0.05. This value indicates that all variables—Return on Assets (ROA), Current Ratio (CR), Debt to Equity Ratio (DER), Total Asset Turnover (TATO), and Net Profit Margin (NPM)—are not normally distributed. This condition consistently applies to data before, during, and after the pandemic.

Test Different Wilcoxon Signed Rank Test

The Wilcoxon Signed Rank Test was used in this study because the data on the variables used were not normally distributed. The results are as follows:

Table 2. Wilcoxon Signed Rank Test ROA Test Statistics

	ROA1 - ROA2
Z	-,519b
Asymp. Sig. (2-tailed)	,604

a. Wilcoxon Signed Ranks Test

b. Based on positive ranks.

The results of the Wilcoxon test in table 2, ROA shows a Z value of -0.519 with a significance value of 0.604 ($p > 0.05$), which means there is no statistically significant difference between ROA in the pre-pandemic period and the post-pandemic period.

Table 3. Wilcoxon Signed Rank Test CR Test Statistics

	CR1 - CR2
Z	,999b
Asymp. Sig. (2-tailed)	,318

- a. Wilcoxon Signed Ranks Test
b. Based on positive ranks.

The Wilcoxon Current Ratio test yielded a Z-value of -0.999 with a significance level of 0.318 ($p > 0.05$), indicating no significant difference in company liquidity between the pre- and post-pandemic periods. Although the average CR in both observed periods remained below one, indicating liquidity pressure, the insignificant value in the test indicates that the pandemic did not fundamentally alter the company's ability to meet its short-term obligations as a whole.

Table 4. Wilcoxon Signed Rank Test DER Test Statistics

	DER1 - DER2
Z	-1,060b
Asymp. Sig. (2-tailed)	,289

- a. Wilcoxon Signed Ranks Test
b. Based on positive ranks.

The DER test showed a Z-value of -1.060 with a significance level of 0.289 ($p > 0.05$), indicating no significant change in the company's capital structure between the pre- and post-pandemic periods. Although the average DER in the pre- and post-pandemic periods increased slightly, this result indicates that the company's tendency to use debt as a funding source is relatively stable statistically.

Table 5. Wilcoxon Signed Rank Test TATTOO Test Statistics

	TATO1- TATO2
Z	-,339b
Asymp. Sig. (2-tailed)	,735

a. Wilcoxon Signed Ranks Test

b. Based on positive ranks.

The Wilcoxon test for TATO yielded a Z-value of -0.339 with a significance level of 0.735 ($p > 0.05$), indicating no significant change in the efficiency of the company's asset utilization in generating sales between the two periods. This suggests that, despite the pressures of the pandemic, the company's effectiveness in optimizing its assets has not changed significantly.

Table 5. Wilcoxon Signed Rank Test NPM Test Statistics

	NPM1- NPM2
Z	-,549
Asymp. Sig. (2-tailed)	,583

a. Wilcoxon Signed Ranks Test

b. Based on positive ranks.

Based on the Wilcoxon test, the NPM showed a Z-value of -0.549 with a significance level of 0.583 ($p > 0.05$), indicating no significant difference in the company's net profit margin between the pre- and post-pandemic periods. This indicates that the company's net profitability, while fluctuating, did not change statistically significantly during the two periods.

D. CONCLUSION

Based on the results of data analysis using the Wilcoxon Signed Rank Test on profitability ratios (ROA, NPM), liquidity (CR), solvency (DER), and activity (TATO), this study concluded that there was no significant difference in the financial performance of food and beverage sub-sector companies listed on the Indonesia Stock Exchange between the periods before, during, and after the Covid-19 pandemic. This indicates that although the pandemic brought significant pressure on the national economy, particularly in terms of operations and market demand, food and beverage sub-sector companies were still able to maintain the stability of their financial fundamentals. This ability is inseparable from the adaptive strategies implemented by the companies, such as the implementation of marketing digitalization, cost efficiency, and product innovation, so that this sub-sector proved more resilient compared to other sectors that were more affected by the pandemic.

E. SUGGESTION

Based on these conclusions, several recommendations can be made. First, companies in the food and beverage subsector are expected to continue strengthening their adaptation strategies through digitalization, operational efficiency, and product diversification to increase their competitiveness and face potential future crises. Second, for investors, the results of this study can be used as a basis for considering the food and beverage subsector's good financial stability, making it worthy of consideration as a long-term investment instrument. However, external factors such as inflation, interest rates, and government policies that can impact company performance should still be considered. Third, future researchers are advised to add other variables such as operating cash flow, financial leverage, and stock market value, as well as expand their research scope to other subsectors, thereby providing a more comprehensive picture of the resilience of various industrial sectors in the face of the global crisis.

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