# Analysis of Financial Ratio Before and During Covid-19 in Consumer Goods Industry Sector 2018-2021

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## **ABSTRACT**

This study aims to analyze whether there are differences in Liquidity, Profitability, Solvency, Activity and Market Ratios between before and during the Covid-19 pandemic in Manufacturing Companies listed on the Indonesia Stock Exchange in the consumer goods industry sector in 2018-2021. The financial ratios used are *Current Ratio*, *Debt to Equity Ratio*, *Gross Profit Margin*, *Total Assets Turnover*, and *Price Earnings Ratio*. The samples were 43 companies using purposive sampling method for sampling. The type of data in this study is secondary data and data collection methods with documentation obtained from financial reports sourced from the Indonesia Stock Exchange. Data analysis techniques used descriptive statistical tests, normality tests, and hypothesis testing with the *Paired Sample t-Test* which was supported by the *Wilcoxon Signed Rank Test*. Data analysis using the Descriptive Statistical Test shows a decline in financial performance in 2020-2021 as a result of the co-19 pandemic. The results of the different tests in this study show that there are differences in the *Debt to Equity Ratio* and *Gross Profit Margin*. This is because the average income has decreased compared to before the Covid-19 pandemic, and companies cannot control their production costs and debts effectively. While the ratio of *Current Ratio*, *Total Assets Turnover* and *Price Earnings Ratio* there is no difference. The company is able to manage its assets quite well and can stabilize its share price.

Keywords: Covid-19, Current Assets, Debt to Equity Ratio, Gross Profit Margin, Price Earning Ratio, Total Assets Turnover.

## INTRODUCTION

Financial metrics play an important role in revealing the financial health of a company. Achieving stable development while maintaining enterprise competitiveness can eliminate potential financial risks. (Kliestik et al., 2020). Investors who will invest their capital will definitely see the company's financial statements as an illustration of its financial performance. Companies with strategies that focus on financial health can gain a competitive advantage. Financial indicators are traditional indicators of a company's overall performance (Rahman et al., 2017).

Financial ratios are numbers obtained from the results of comparisons between one financial statement post and another that has a significant relationship. Comparisons can be made between one financial report item and another or between items that exist between financial reports (Sabil et al., 2021). Meanwhile, the definition of financial ratios is a company performance analysis instrument that explains various relationships and financial indicators, which are intended to show changes in financial conditions or operating performance in the past and help describe *trends* in these changing patterns, to then show risks and opportunities inherent in the company concerned (Tyas, 2020).

Financial ratios are grouped into 5 namely liquidity ratios, solvency ratios, profitability ratios, activity ratios, and market ratios. In this study, liquidity ratios are measured by CR (*Current Assets*), solvency ratios are measured by DER (*Debt to Equity Ratio*), profitability ratios are measured by GPM (*Gross Profit Margin*), activity



ratios are measured by TATO (*Total Asset Turnover Ratio*), and market ratio which will be assessed by PER (*Price Earning Ratio*). The ratio used for research material includes all types of ratios, so it is considered sufficient to describe the company's financial performance.

Normally, the company has increased from year to year. For example, the Indonesian economy experienced growth of 5.17 percent in 2018 as measured by Gross Domestic Product (GDP). Then in 2019 it experienced a growth of 5.02 percent. Based on the Central Statistics Agency (BPS), the industrial sub-sectors that grew were the food and beverage industry 7.95 percent, the textile and clothing industry 7.17 percent, the pharmaceutical industry 12.73 percent and other companies.

In 2018 to 2019 companies in Indonesia are still operating normally. The company's operational activities are in accordance with the targets and the company's ability to manage them, so as to obtain a fairly good profit. Export and import activities run well without any complicated obstacles. Manufacturing or industrial companies have an important role in the Indonesian economy. If the development of manufacturing companies is good then the Indonesian economy can increase rapidly.

Since 2020, the outbreak of the novel coronavirus COVID-19 has seriously affected health care, economy, transportation and other fields in different industries and regions (Atayah et al., 2022). In 2020 there was the Covid-19 pandemic which had a huge impact on the world, including Indonesia. The Covid-19 pandemic first developed in Wuhan (China) on December 1 2019 and the government announced that Covid-19 entered Indonesia on March 2 2020. In the industrial world. Covid-19 has had guite a big impact. Indonesia's economy based on Gross Domestic Product (GDP) only grew 2.07 percent. The decline in industrial performance covered almost all sectors. In 2021 the Indonesian economy grew 3.69 percent due to the unfinished Covid-19 pandemic. Many companies have suffered losses during the Covid-19 pandemic (BPS.go.id, 2021).

Financial performance can be used as a benchmark for whether the impact of the pandemic has caused significant changes compared to before the Covid-19 pandemic, and whether it has had a positive or negative impact during the Covid-19 pandemic. This can be seen in the results of the financial statements of recent years.

Table 1. Comparation of financial performance in food & beverage companies

Code of Emiten	Year	CR	DER	GPM	TATO	PER
	2018	139%	83%	48%	7%	10.25
ADEC	2019	200%	45%	50%	10%	7.35
ADES	2020	297%	37%	51%	14%	6,34
	2021	251%	34%	53%	20%	7.3
	2018	15%	-153%	29%	-7%	-4.38
AISA	2019	41%	-213%	30%	61%	0.48
	2020	75%	143%	25%	60%	3.01
	2021	60%	115%	22%	0%	203,84
	2018	76%	187%	10%	-3%	-26.55
ALTO	2019	88%	190%	12%	-1%	-118.2
	2020	83%	197%	12%	-1%	(64,25)
	2021	82%	199%	10%	-1%	(68,71)

Source: data processing, 2022

Based on the data above, it can be concluded that several food and beverage companies experienced losses with a negative PER (ALTO) value and had a bad debt ratio before Covid (AISA), and some had stable conditions (ADES). this means that the pandemic has an impact on financial performance before and after covid. Meanwhile, there are also those who argue that there is no significant difference in the situation

during and after Covid (Devia & Sapariyah, 2022) there are no differences in financial ratios as measured by CR, DR, ROA and TATO before and during Covid-19 in food and beverage companies on the Indonesia Stock Exchange. There is a significant difference in the liquidity ratio due to the smooth running of the company, such as the inventory of merchandise that has accumulated during the Covid-19 period (Gunawan, 2021). The



cause was a decrease in people's purchasing power during the Covid-19 pandemic, which caused the company to experience a decline in profits and there was a buildup of merchandise inventories. Meanwhile, the Solvency Ratio and Activity Ratio did not have a significant difference before and during the Covid-19 period.

The financial performance of logistic firms was significantly higher during 2020. Overall, the country-wise findings corroborated with the main results and the financial performance of 14 countries' logistic firms out of 20 ones analysed has been significantly elevated, during the pandemic period. However, this paper has found out a negative financial performance of the logistics firms during the COVID-19 period in six countries (Germany, Korea, Russia, Mexico, Saudi Arabia and the UK), which support the second proposition (Atayah et al., 2022).

Thats there were significant differences in CR and TATO during the Covid-19 pandemic. The results of research on DER, ROE, and NPM found no significant differences between before and during the Covid-19 pandemic (Mantiri & Tulung, 2022). But (Esomar & Christianty, 2021) showing the results of data processing and statistical tests on the CR ratio there was no significant difference between before and after the occurrence of Covid-19. However, for the DER, ROA, and PER ratios there were significant differences before and after the occurrence of Covid-19. There were significant differences in the ratios of GPM, NPM, ROA, and ROE between before and during the Covid-19 pandemic (Nadhip et al., 2022).

A company's financial performance is its financial performance, the factors of which relate to revenues, expenses, overall business, liability structure and return on investment (Barus et al., 2017). Financial performance is an analysis that is carried out to see how far a company has used the rules in carrying out finances properly and correctly. Good company financial performance is the implementation of the rules that apply are good and right.

Performance measures is to assess success or failure in achieving performance targets and organizational goals set. In addition, these performance measures are also intended to provide direction or milestones to what extent organizational goals are achieved (Rasnawati & Zebua, 2021). Financial performance can be measured using ratio analysis, which reveals relationships as well as a basis for comparison,

indicating conditions or trends that cannot be detected when only looking at the components of the ratio itself. Financial ratios are divided into several types, namely as follows:

# 1. Liquidity Ratio

The Liquidity Ratio is a type of financial ratio to measure a company's ability to meet its obligations in the short term. Liquidity ratio are divided into three types, namely as follows: Current Ratio, Quick Ratio, Cash Ratio

## 2. Profitability Ratio

Profitability ratio shows the company's ability to generate profits (profit). By using this ratio, it can be seen the survival of the company (going concern). There are five measures that can be used to measure profitability ratios, namely: Gross Profit Margin, Net Profit Margin, Operating Income Ratio, Earning Power of Total Investment, Return on Investment (ROI), Return on Equity, Return on Net Worth.

# 3. Solvability Ratio

This ratio measures the level of management of sources of funds and the company's ability to meet its long-term obligations or debts. There are two types of solvency ratios, namely: Debt to Assets Ratio, Debt to Equity Ratio

#### 4. Activity Ratio

The activity ratio is used to measure the effectiveness of the company in utilizing all the resources it has. In this *financial ratio analysis*, low activity at a certain level of sales results in more funds being embedded in assets. These extra funds where the impact of low activity will be better if invested in more productive activities. Receivable *Turnover*, Inventory Turnover, Fixed Asset Turnover, Total Asset, *Average Collection Turnover* Working Capital Turnover

## 5. Market Value Ratio

There are two types of market value ratios that are most common, namely *Price Earnings Ratio* (PER) and *Market to Book Value* (MBV). The two types of market value ratios provide almost the same information.

The purpose of this study was to find out and analyze the comparison of financial performance before and after Covid-19 in food and beverage companies listed on the Indonesian Stock Exchange.

#### **METHODS**



Analysis is the activity of processing data carried out by researchers with the intention of finding information or understanding that will be used as a general conclusion. Data analysis is an activity after data from respondents or other data sources are collected. The analysis used in this study is descriptive analysis, namely statistics used

to analyze data by describing or illustrating the data that has been collected without intending to draw generally accepted or general conclusions.

This research uses analysis data by classic assumption test, and for hypothesis analysis by difference test with paired sample t-test and wilcoxon signed rank test.

## **RESULT and DISCUSSION**

Tabel 2. Descriptive statistic before and during Covid-19

Before	N	Means	Std Dev	During	N	Means	Std Dev
CR 2018	43	2,668,277	212,552	CR 2020	43	2,534,633	241,398
CR 2019	43	2,878,391	240,189	CR 2021	43	240,088	228,868
DER 2018	43	776,278	73,171	DER 2020	43	976,802	96,436
DER 2019	43	775,134	85,135	DER 2021	43	1,256,225	211,835
GPM2018	43	338,101	17,390	GPM2020	43	333,367	16,919
GPM 2019	43	345,638	16,962	GPM 2021	43	312,041	17,656
<b>TATO 2018</b>	43	92,462	17,296	<b>TATO 2020</b>	43	69,312	12,838
<b>TATO 2019</b>	43	97,977	12,965	<b>TATO 2021</b>	43	68,467	9,776
PER 2018	43	13,647	100,063	PER 2020	43	14.308,9686	70.612,768
PER 2019	43	616,199	156,061	PER 2021	43	98,477,893	64,187,602

Based on tables 2 above, it can be seen from the average value (means) that the CR (Current Ratio) in 2018-2019 is higher than in 2020-2021, which means that there was a decrease in performance during the Covid-19 pandemic. Means DER (Debt to Equity Ratio) value for 2020-2021 is higher than that for 2018-2019 indicating that there was an increase in debt during the Covid-19 pandemic. The average value of GPM (Gross Profit Margin) in 2018-2019 was higher than in 2020-

2021 indicating that there was a slight decline in performance during the Covid-19 pandemic but it is still in the normal category, because in the industry the GPM ratio, a reasonable Gross Profit Margin is around 30%. Meanwhile, the average value on TATO (Total Asset Turnover) has also decreased in 2020-2021 due to the negative impact of the co-19 pandemic. The Price Earnings Ratio (PER) was quite drastically different during the Covid-19 pandemic.

Tabel 3. Paired Sample t-Test and Wolcoxon Sign Rank Test

		Wilcoxon Sign Rank Test			
	95% Confidence I		· ·		
	Difference		t	Sig. (2-tailed)	Asymp Sig. (2-tailed)
	Lower	Upper			
CR	-155,571	62,712	1,892	0,062	0,208
DER	-6,309,515	-506,638	-2,335	0,022	0,005
GPM	0,57948	325,373	2,850	0,005	0,005
TATO	-0,00558	0,05825	1,641	0,105	0,074
PER	-26,447,575	2,353,783	-1,663	0,100	0,719

Based on table 3, it shows that the signifikant in paired test it can be seen that CR has a significance value of (0,062), for DER a significance value of (0,022). Next GPM has a significance value of (0,005), TATO has a significance value of (0,105) and PER of (0,100). it can be concluded from the results of the paired test that has a significance value of less than 0.05 is

DER and GPM while CR, TATO, and PER have a significance level of more than 0.05. The Wilcoxon test results stated that the significance values of CR (0.208), DER (0,005), GPM (0,005), TATO (0,074) and PER (0,719). The results show that the significance level of more than 0.05 is shown by the CR, TATO and GPM variables as well as the paired test.



Based on the test results it can be explained that significant differences occur in the DER and GPM variables with a significance level of less than 0.05, while for the CR, TATO, and GPM variables the results show that there were no significant differences in financial performance before and during Covid-19. esearch findings regarding differences in financial performance for the CR variable prove that there are no significant differences in financial performance before and during Covid-19, the results of the study are in line with (Junaidi & Nasution, 2022; Yuslinda Nasution, 2021). These results indicate that the company can manage its current assets well.

For the DER variable that has a significance value of less than 0.05 indicating that there was a significant difference in the DER value before and during the pandemic(Esomar & Christianty, 2021; Soko & Harjanti, 2022), these results indicate that the short-term debt ratio swelled so that a significant difference was seen before and during the pandemic, possibly caused by sales results that did not meet target so that for business management the company takes on debt in maintaining its business.

The GPM variable that has a significance value of less than 0.05 indicates that there was a significant difference in the GPM value before and during the pandemic, these results indicate that the company's gross profit has decreased significantly (Gunawan, 2021). This was made possible due to a decrease in operations due to the spread of covid, so that the level of sales dropped dramatically.

The TATO variable has a significance value of more than 0.05, which means that there is no significant difference in net income with asset management (Hartati et al., 2022). The value of the assets owned by the company can be managed properly even though there is a decrease in profits. The significance value of the PER variable is more than 0,05 which indicates that there is no significant difference in PER before and during the pandemic (Ediningsih & Satmoko, 2021). Stock prices that were circulating at the start of the pandemic did experience a sharp decline, but the government's actions in managing the capital market can stabilize company share prices so that the differences that occur do not have much effect.

## **CONCLUSION**

Based on the results of the study, it can be concluded there were significant differences in the DER and GPM variables before and during Covid. As for the CR, TATO, and PER variables, the results show that there are significant differences before and during Covid in food and beverage companies listed on the Indonesian stock exchange. For further research, it is hoped that it can use other variables outside the research variables studied and can increase the number of samples.

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