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ANALYSIS OF THE IMPACT OF THE COVID-19 PANDEMI ON FINANCIAL PERFORMANCE AND SURVIVAL OF COMPANIES IN THE FOOD BEVERAGE INDUSTRIAL SECTOR AND RESTAURANT SERVICES FROM POTENTIAL BANKRUPTCY USING FINANCIAL RATIO AND TAFFLER ANALYSIS MODELS

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ABSTRACT
This study aims to identify the influence analysis of the Covid-19 pandemic's impact on financial performance and company resilience from potential bankruptcy in the food and beverage sector and restaurant service sector listed on The Indonesia Stock Exchange (IDX) before and during the COVID-19 pandemic. This study was measured using rentability ratios, profitability ratios, liquidity ratios, solvency ratios, and Taffler Models to measure the potential for bankruptcy of a company. The results indicated significant differences in the rentability ratios represented by the return on assets ratio in companies in the food and beverage sector. Meanwhile, other ratios and potential bankruptcy using the Taffler model did not show a significant difference. Furthermore, in restaurant service companies, there were significant differences in all ratios tested, namely rentability ratio, profitability ratios, liquidity ratios, solvency ratios, and bankruptcy potential using the Taffler model. This study also shows that the average company in the food and beverage sector has resistance to potential bankruptcy compared to those in the restaurant service sector.

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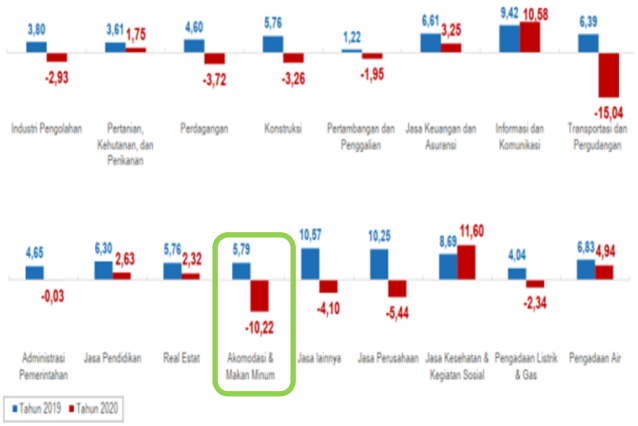
1. INTRODUCTION

1.1. Background

The food and beverage sector and restaurant services are important sectors for the Indonesian economy. This can be seen from the contribution of 36.40% to the GDP of the non-oil and gas processing industry in 2019. This shows how vital the role of the food and beverage industry is in the growth of the industry and the national economy. Meanwhile, in terms of employment, it shows that the food and beverage industry is the industry that absorbs the most workers in the manufacturing sector in 2021, where the number reaches 27% of the total workforce in the manufacturing sector.

Figure 1. Indonesia's Economic Growth in 2019 and 2020 by Type of Business



Source BPS, 2021

Based on the BPS Report (2021), shows that the accommodation & food and drink sector experienced an economic slowdown of -10.22%, even though this sector grew by 5.72% in the previous year. The decline in economic growth in the food and beverage sector will affect financial performance in that sector. Apart from that, with the long-lasting COVID-19 pandemic and the existence of regulations from the government regarding large-scale social restrictions in order to accelerate the handling of COVID-19 as stipulated in PP No. 21 of 2020, community activities have decreased, especially for activities outside the home. This has caused the food and beverage sector, especially the restaurant service sector, to be significantly affected by the COVID-19 pandemic. This will undoubtedly affect the financial performance of companies in the food and beverage sector, and if this goes on for a long time, it will bankrupt the company. This is due to restrictions on community activities outside the home, which decreases sales. Meanwhile, other costs tend to remain the same or even increase because companies are required to improve employee safety and health standards during a pandemic, such as the budget for purchasing masks and the budget for conducting rapid tests which aim to protect employees from the spread of COVID-19.

The first step in identifying and avoiding bankruptcy is to perform a company's financial distress analysis, namely by conducting an analysis that can predict the potential for bankruptcy of a company by conducting a ratio analysis of the company's financial statements. The ratios that are generally used in measuring a company's financial performance are rentability ratios, profitability ratios, liquidity ratios, and solvency ratios. The rentability ratio is used to assess a company's ability to generate profits by utilizing all of the company's assets. The ratio commonly used in this analysis uses ROA (return on assets). As discussed above, during the COVID-19 pandemic, there was a decrease in people's purchasing power, which resulted in a decrease in sales. Assuming fixed costs, the decline in sales should have an impact on the company's ROA ratio. Profitability ratios are used to assess the effectiveness of management in managing the company. During the COVID-19 pandemic, companies are required to make various efficient and effective efforts in managing the company to maintain the company's net profit level. The net profit margin (NPM) ratio describes this profitability ratio. Another ratio used in this study is the liquidity ratio. The liquidity ratio is used to assess a company's ability to meet short-term obligations. In facing the COVID-19 pandemic, companies are required to fulfill their short-term obligations. One of the early signs of financial distress is the company's inability to pay financial obligations or debts when they are due. The smoother the company is in paying its maturing obligations, the smaller the probability that the company will go bankrupt. (Darsono & Ashari, 2005). Another ratio in this study is the solvency ratio. The solvency ratio is used to assess a company's ability to pay all of its long-term and short-term financial obligations. As a result of the COVID-19 pandemic, there is a higher risk of default on debt payments. The greater the ratio of debt compared to capital, the higher the potential for bankruptcy. Bankruptcy analysis of a company is important because it will be used by managers to make decisions to avoid bankruptcy (Victoria, 2020). There are many models used in analyzing the bankruptcy of a company. One model that can be used to predict bankruptcy is the Taffler model. This study uses the taffler model due to several studies as follows:

1. According to research by Agarwal and Tafler (2007), the taffler method has been shown to have the ability to predict clearly over time for 25 years and dominates the better prediction approach.(Agarwal & Taffler, 2007)
2. According to research by Kassar and Soileau (2014), who conducted research on the relationship between financial performance and bankruptcy prediction using the taffler model on data from six companies examined for the 1998-2011 period, it showed that there was a very high relationship between

financial performance and bankruptcy prediction (Al-Kassar & Soileau, 2014).

3. According to research conducted by Bimpong et al. (2020) on consumer goods companies in companies in Ghana in the 2014-2020 period to test the predictive power of 3 models, namely altman, taffler, and beneish, it shows that the taffler method has higher accuracy than the two methods with an accuracy value by 88% (Bimpong et al., 2020).
4. According to research conducted by Prakoso, Ulupui, and Perdana (2022), the Taffler method has an accuracy rate of 96% in retail companies and has the lowest error rate of 4% compared to other methods (Prakoso et al., 2022).
5. According to research conducted by Cimpoeru (2014), the taffler method has a ratio accuracy of more than 90% for companies in Romania(Cimpoeru, 2014).
6. According to research conducted by Maisyarah and haryono (2021), it shows that the Springate, Taffler, and Altman models have a good accuracy rate of 100%. So the three models are strong models for predicting bankruptcy in manufacturing companies listed on the IDX in 2015-2019 (Maisyarah & Haryono, 2021).

Meanwhile, there are several studies related to bankruptcy related to the COVID-19 pandemic, including Khan and Ullah (2021), who examined companies in Pakistan regarding the impact of the COVID-19 pandemic on company financial distress on the Pakistan Stock Exchange, found that the Z-score results before and after COVID -19 there has been a significant increase in the level of financial distress which could lead to an increase in the number of bankruptcies for companies listed on the PSX (Khan & Ullah, 2021). Meanwhile, in a domestic study conducted by Astuti et al. (2020), there was the influence of the COVID-19 pandemic. Companies in the property sector that are experiencing financial difficulties and are predicted to experience signs of bankruptcy have increased from 2% in 2019 to 51% at the end of June 2020 (Astuti et al., 2021). Meanwhile, research from Abdullah et al. (2020) shows that there are financial difficulties and potential bankruptcy for two national airlines in Southeast Asia, namely Garuda Indonesia and Thai Airways, when compared to other airlines. Companies experiencing financial difficulties must be wise in utilizing their assets, as well as liquidating parts that are considered unprofitable and restructuring to avoid potential bankruptcy in the future (Abdullah et al., 2020).

Based on the background above, there are various studies on bankruptcy prediction. However, only a few have reviewed the impact of the COVID-19 pandemic on the food and beverage sector using the taffler method. The food and beverage sector is an important sector of the Indonesian economy. This can be seen from the contribution of 36.40% to the GDP of the non-oil and gas processing industry in 2019. Meanwhile, in terms of employment, the food and beverage industry is the industry that absorbs the most workers in the manufacturing sector in 2021, where the number reach 27% of the total workforce in the manufacturing sector. However, with the COVID-19 pandemic, food and beverage sector companies are one of the sectors affected by the COVID-19 pandemic. Where the accommodation & food & drink sector experienced an economic slowdown of -10.22%, even though this sector grew by 5.72% in the previous year. Therefore, this research will examine the impact of the pandemic on companies in the food and beverage sector and predict financial difficulties during a pandemic. When compared with previous research, the current study was conducted to compare the durability of food and beverage companies in the industrial sector with the restaurant or dining service sector using the taffler method.

1.2 hypothesis

Based on the background of the problems that were presented at the beginning of the discussion, the hypothesis in this study can be formulated as follows: if any, can be included.

1. The impact of the COVID-19 pandemic on the rentability ratios of food and beverage companies in the industrial sector and restaurant services.

Restrictions on community activities as stipulated in Government Regulation No. 21 of 2020 concerning Large-Scale Social Restrictions in the Context of Accelerating the Handling of Corona Virus Disease 2019 (COVID-19) during the COVID-19 pandemic have caused an economic downturn which resulted in reduced capabilities of food and beverage companies in the food and beverage sector. The restaurant industry and services experienced a decline in generating profits. The results of a previous study conducted by Lumenta et al. (2021) on companies in the transportation sector showed that in 2020 all the companies studied experienced a decline in the NPM, ROA, and ROE ratios (Lumenta et al., 2021). The same is true of research conducted by Hilman and Laturette (2021), where this research shows significant differences in the ratios of ROA, SG, and CR in reducing bankruptcy prediction during a pandemic (Hilman & Laturette, 2021). Based on this discussion, the hypothesis in this study is:

H1: There is a significant difference in the rentability ratios of food and beverage companies in the industrial sector before and during the pandemic

H2: There is a significant difference in the rentability ratios of food and beverage companies in the restaurant service sector before and during the pandemic

2. The impact of the COVID-19 pandemic on the profitability ratios of food and beverage companies in the industrial sector and restaurant services

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The COVID-19 pandemic has affected the company's effectiveness in managing the company's operational activities. The COVID-19 pandemic has caused unexpected costs, such as prevention and treatment costs for employees, and costs incurred due to the emergence of the new normal concept, such as costs due to restrictions. This study uses profitability ratios using net profit margin (NPM). Previous research on companies in the transportation sector showed that in 2020 all the companies studied experienced a decrease in the NPM, ROA, and ROE ratios (Lumenta et al., 2021). Based on this discussion, the hypothesis in this study is:

H3: There is a significant difference in the profitability ratios of food and beverage companies in the industrial sector and restaurant services before and during the pandemic.

H4: There is a significant difference in the profitability ratios of food and beverage companies in the restaurant service sector before and during the pandemic.

3. The impact of the COVID-19 pandemic on the liquidity ratio of food and beverage companies in the industrial sector and restaurant services

The COVID-19 pandemic has reduced a company's ability to generate profits and caused unexpected costs compared to before the occurrence of COVID-19. This will certainly affect the company's ability to pay debts that will soon be due. The allocation of funds that should have been used to pay off debts was finally used to finance unexpected costs during the COVID-19 pandemic. The liquidity ratio is displayed in this study using the current ratio (CR). Previous research by Hilman and Laturette (2021) where this study showed a significant difference in the ROA, SG, and CR ratios in reducing bankruptcy prediction during a pandemic. Based on this discussion, the hypothesis in this study is:

H5: There is a significant difference in the liquidity ratio of food and beverage companies in the industrial sector before and during the pandemic.

H6: There is a significant difference in the liquidity ratio of food and beverage companies in the restaurant service sector before and during the pandemic.

4. The impact of the COVID-19 pandemic on the solvency ratio of food and beverage companies in the industrial sector and restaurant services

The COVID-19 pandemic caused the company's ability to generate profits to decline and incur new costs that only existed after the COVID-19 pandemic occurred. This, of course, will also affect the company's ability to pay all of the company's debts. The allocation of funds that should have been used to pay off debts was finally used to finance costs that did not previously exist during the COVID-19 pandemic. In this study, the solvency ratio is proxied by the Debt to Asset Ratio. The results of another study conducted by Febriantika et al. (2021) show that there was no decrease in the leverage ratio, activity ratio, and company value during the Covid-19 pandemic. Based on this discussion, the hypothesis in this study is:

H7: There are significant differences in the solvency ratios of food and beverage companies in the industrial sector and restaurant services before and during the pandemic.

H8: There are significant differences in the liquidity ratios of food and beverage companies in the restaurant service sector before and during the pandemic.

5. The impact of the COVID-19 pandemic on the resilience of food and beverage companies in the industrial sector and restaurant services

The macro impact of the pandemic was felt where the Accommodation & Food & Beverage Sectors experienced an economic slowdown of -10.22%, even though this sector grew by around 6% in the previous year. This will be a test of the resilience of food and beverage companies in facing the decline in economic growth caused by the COVID-19 pandemic. In previous research by Prakoso, Ulupui, and Perdana (2022), it was shown that the Taffler method has an accuracy rate of 96% in retail companies and has the lowest error rate of 4% compared to other methods. Based on this discussion, the hypothesis in this study is:

H9: There is a significant difference in the resilience of food and beverage companies in the Taffler model industry before and during the COVID-19 pandemic.

H10: There is a significant difference in the resilience of food and beverage companies in the restaurant service sector of the Taffler model before and during the COVID-19 pandemic.

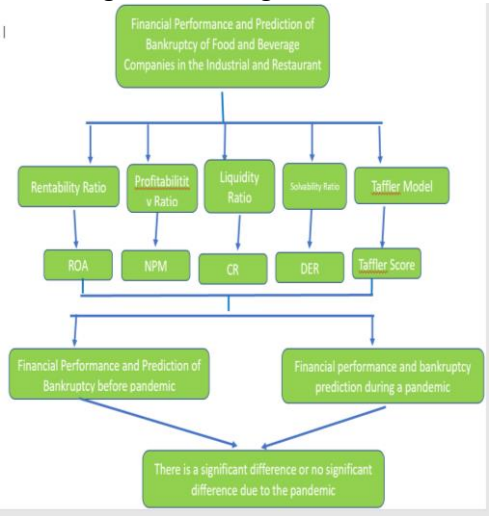
2. LITERATURE REVIEW

Based on the signal theory, there is a positive response if the financial performance displayed in the financial statements shows good results. Likewise, companies that are predicted not to experience bankruptcy will certainly increase the trust of both investors and creditors. In economic conditions that are experiencing a decline in economic growth caused by the COVID-19 pandemic, there will certainly be differences in financial performance and predictions of company bankruptcy before and during the COVID-19 pandemic. In this study, a sample of companies in the food and beverage industry and restaurant services were listed on the Indonesia Stock Exchange and published financial reports for 2019 and 2020. This study used a paired sample t-test, which is a way to test the hypothesis by comparing values. The mean between two samples of a dependent outcome, e.g., the difference between samples, is related to time. Paired results are obtained from financial ratios and the Taffler index, where the first result is the state of financial performance and the bankruptcy index before the pandemic, and the second result is the state of financial performance and the bankruptcy index during the pandemic. However, this study will use the Wilcoxon differential test if the normality test

results showed that the data are not normally distributed. This research is to examine the impact of the pandemic on financial performance and the potential for bankruptcy prediction as measured by testing the conditions before and after the COVID-19 pandemic. Financial performance is measured using the ratio of ROA, NPM, DER, and current ratio. Meanwhile, bankruptcy prediction is measured using the taffler method. The results of previous research showed that there were differences in financial performance (Hilman & Laturette, 2021), indicating that there were significant differences between financial performance as represented by the liquidity ratio before and during the COVID-19 pandemic. The profitability ratio is the ratio used to measure a company's ability to generate profits within a certain time and shows the level of ffectiveness of management in managing the company's operational activities. This study uses the ratio of profitability by using the ratio of net profit margin (NPM). The results of previous research show that there are significant differences between financial performance as represented by the profitability ratios before and during the COVID-19 pandemic, as studied by Lumenta et al. (2021). Meanwhile, the rentability ratio is a ratio that can measure a company's ability to generate profits with all the assets owned by the company. In previous research by Hilman et al. (2021), Lumenta et al. (2021) showed that there was a significant difference between financial performance as represented by the rentability ratio before and during the COVID-19 pandemic. The Solvability Ratio, according to Kasmir (2017), is a ratio that shows a company's ability to fulfill all obligations, both short-term and long-term (Kasmir, 2017). In this study, the solvency ratio is represented by the debt to asset ratio. The results of another study conducted by Febriantika et al. (2021) show that there was no decrease in the leverage ratio, activity ratio, and company value during the Covid-19 pandemic. Meanwhile, the profitability and liquidity ratios increased during the Covid-19 pandemic (Febriantika et al., 2021). The results of another study conducted by Lumenta et al. (2021) on companies in the transportation sector show that in 2020 all the companies studied experienced a decline in the NPM, ROA, and ROE ratios (Lumenta et al., 2021).

Previous research conducted by Agarwal and Tafler (2007) showed that the Taffler bankruptcy prediction model proved to have the ability to predict clearly over time for 25 years (1982-2007) and dominated the better prediction approach (Agarwal & Taffler, 2007). Based on the above, the framework in this study is as follows:

Figure 2 Thinking Framework



3. RESEARCH METHOD

3.1. RESEARCH DATA

This study uses secondary data, namely by using company financial reports in the food and beverage industry and restaurant services sector, which were registered before 2019 and 2020 using the census method of 23 food and beverage industry companies and five restaurant service companies. The research uses 2019 and 2020 to find out the impact before and during the pandemic.

3.2. DATA ANALYSIS METHOD

The data analysis method used in this study includes:

1. Calculating the financial ratios of companies in the food and beverage industry and restaurant services to assess the company's financial performance
2. Perform ratio calculations according to the variables in the Taffler model. In this study using, the Taffler method is used to predict the potential bankruptcy of a company. The Taffler Score Model formula is as follows:

$$Taffler = 3{,}20 + 12{,}18EBTCL + 2{,}5CATL - 10{,}68\text{CLA} + 0{,}029NCI$$

EBTCL = net profit before tax/current debt
CACL = current assets/current liabilities
CLA = current liabilities / total assets
NCI = (current assets – current liabilities) /{ (sales – earning before tax – depreciation)} / 365

3. Before carrying out a different test using the paired sample T-test, a data normality test was performed using a normality test.
4. After the normality test was carried out on the existing data, this study used a different test using a paired

sample t-test. However, this study will use the Wilcoxon differential test if the normality test results produce data that is not normally distributed.

5. Make a decision to accept or reject Ho in this comparison test with the following results:

a. If the Asymp.Sig value < 0.05, then Ho is rejected, and Ha is accepted.
b. If the value of Asyimp.Sig > 0.05, then Ho is accepted, and Ha is rejected

4. RESULTS OF THE DISCUSSION

In this discussion, a discussion of the data analysis that has been carried out will be presented. The data shown is the calculation of financial ratios, normality tests, and different tests using paired sample t-tests. This section explains the research report, including explaining the research data and description of the analysis needed, which is an empirical answer to questions on the subject matter and/or research hypotheses.

6.1. NORMALITY TEST

Below are the results of the Kolmogorov-Smirnov normality test for companies in the food and beverage industry sector and restaurant services using SPSS (listed in Appendix 1 Normality Test Table)

Based on the normality test using the Kolmogorov-Smirnov test, it shows that all data show normal results. This can be seen from the asymp.sig (2-tailed) value indicating a value of more than 0.05. Therefore, in carrying out a different test using a paired sample t-test.

6.2. HYPOTHESIS TESTING

From the results of the normality test above, there are similar to the results obtained. All data are normally distributed. Therefore, in testing the hypothesis using a different test paired sample t-test. Below are the results of the paired sample t-test for all ratios before and during the COVID-19 pandemic in companies in the food and beverage industry and restaurant services using SPSS (listed in Appendix 2 Table of Hypothesis Tests).

Based on the results of the different tests of paired sample t-test, the rentability ratio of food and beverage companies in the industrial sector can be seen with a value of 0.012, where the value is less than 0.05. This shows that there are significant differences in the rentability ratios of companies in the food and beverage industry sector before and during the COVID-19 pandemic. Meanwhile, for the results of the different tests of paired sample t-test, the ratio of rentability in restaurants serving food and beverage companies shows a value of 0.000, which is less than 0.05. This shows that there are significant differences in the rentability ratios of companies in the food and beverage restaurant service sector before and during the COVID-19 pandemic. The results of this study are similar to the results that have been investigated by previous research, for example, in research conducted by Lowardi and Abdi (2021), which examines the effect of the COVID-19 pandemic on the performance and financial condition of the property sector companies. The research concluded that COVID-19 had a significant effect on ROE, ROA, NPM, and GPM. This shows that the COVID-19 pandemic has had a significant impact on the financial performance of property development companies (Lowardi & Abdi, 2021). This study shows that there is a significant difference in the rentability ratios of companies in the industrial sector and food and beverage restaurant services before and during the COVID-19 pandemic due to a decrease in the profitability ratio during the COVID-19 pandemic. The decline in the rentability ratio was due to the decline in the company's sales during the COVID-19 pandemic. This is due to restrictions on community activities outside the home and strict rules for restaurant service visitors in accordance with Government Regulation No. 21 of 2020 concerning Large-Scale Social Restrictions in the Context of Accelerating the Handling of Corona Virus Disease 2019. Based on these data, it shows that the COVID-19 pandemic is causing significant differences. Significant to the ability of companies in the food and beverage industry and restaurant service sector to generate profits.

Based on the results of the profitability ratio different test for food and beverage companies in the industrial sector, it can be seen that the value of the paired sample t-test is 0.290, which is more than 0.05. Thus, there is no significant difference in the profitability ratios of companies in the food and beverage industry sector before and during the COVID-19 pandemic. The results of this study are like previous research that has been researched by Pratama, Pontoh, and Pinatik (2021), which examines the analysis of the impact of COVID-19 on the financial performance of retail companies listed on the Indonesia Stock Exchange. This study concluded that there was no significant difference between COVID-19 in the NPM variable (Pratama et al., 2021). This study shows that there is no significant difference in the profitability ratios represented by the net profit margin ratio. This can be seen from the number of companies that experienced an increase in their profitability ratios of 11 companies in the food and beverage sector from 23 samples of companies in the food and beverage sector. In addition, seen from the average NPM of companies in the food and beverage sector before and during the COVID-19 pandemic only experienced a slight decline. The average profitability ratio represented by NPM before the COVID-19 pandemic was 11.37%, and the average profitability ratio represented by NPM after the COVID-19 pandemic was 9.58%. So there was a decrease of about 1.79%. This shows that companies in the food

and beverage industry sector can carry out cost efficiencies well during the COVID-19 pandemic.

Meanwhile, based on the results of the different profitability ratio tests for food and beverage companies in the restaurant service sector, it can be seen that the value of the paired sample t-test is 0.043, where the value is less than 0.05. Thus it can be concluded that there is a significant difference in the profitability ratios of sector companies. Food and beverage restaurant services before and during the COVID-19 pandemic. This is in accordance with research conducted by Mulianto, Wijaya, and Yogi (2020), which examined the impact of the COVID-19 pandemic on profitability ratios, in this study showed that the COVID-19 pandemic had a significant impact on profitability ratios (Mulianto et al., 2020). This study shows significant differences in the profitability ratios represented by the net profit margin ratio. This can be seen from the number of restaurant service companies, all of which experienced a decrease in the profitability ratio of 5 companies in the food and beverage restaurant service sector from the 5 sample companies tested. In addition, seen from the average net profit margin of companies in the food and beverage restaurant service sector before and during the COVID-19 pandemic has decreased. The average profitability ratio represented by the net profit margin before the COVID-19 pandemic was 2.45%, and the average profitability ratio represented by the net profit margin during the COVID-19 pandemic was -16.15%. So it has decreased by around 761%. This shows that the occurrence of the COVID-19 pandemic has had an impact on the profitability ratios of companies in the food and beverage restaurant service sector.

Based on the results of the different tests of the paired sample t-test of the liquidity ratio, it can be seen that the value of the different tests of the paired sample t-test of asymp.sig is 0.680 where the value is more than 0.05. This shows that there was no significant difference in the liquidity ratio of companies in the food and beverage sector before and during the COVID-19 pandemic. The results of this study are like previous research that has been researched by Devi, Warasniasih, Masdiantini, and Musmini (2020), which examines the Impact of the COVID-19 Pandemic on the Financial Performance of Companies on the Indonesia Stock Exchange. The research concluded that COVID-19 had no effect on the liquidity ratio represented by the current ratio (Febriantika et al., 2021). This study shows that there is no significant difference in the liquidity ratio represented by the current asset ratio. This can be seen from the number of companies that experienced an increase in their liquidity ratio of 14 companies in the food and beverage sector from 23 samples of companies in the food and beverage industry sector. In addition, seen from the average current ratio of companies in the food and beverage industry sector before and during the COVID-19 pandemic has increased. The average liquidity ratio represented by the current ratio before the COVID-19 pandemic was 269%, and the average liquidity ratio represented by the current ratio during the COVID-19 pandemic was 274%. So there was an increase of about 4.15%. This shows that companies in the food and beverage industry sector can manage their liquidity well during the COVID-19 pandemic.

Meanwhile, based on the results of the liquidity ratio different test for food and beverage companies in the restaurant service sector, it can be seen that the value of the paired sample t-test is 0.01, where the value is less than 0.05. This shows that there were significant differences in the liquidity ratios of companies in the food and beverage restaurant service sector before and during the COVID-19 pandemic. This is in accordance with research conducted by Siswati (2021), which examined the impact of the COVID-19 pandemic on the liquidity ratio, which in this study showed that the COVID-19 pandemic had a significant impact on the liquidity ratio (Siswati, 2021). This study shows that there are significant differences in the liquidity ratios represented by the current asset ratio. This can be seen from the number of restaurant service companies, all of which experienced a decrease in the liquidity ratio of 5 companies in the food and beverage restaurant service sector from the 5 sample companies tested. In addition, seen from the average current ratio of companies in the food and beverage restaurant service sector before and during the COVID-19 pandemic has decreased. The average liquidity ratio represented by the current ratio before the COVID-19 pandemic was 112%, and the average liquidity ratio represented by the current ratio during the COVID-19 pandemic was 68%. So it has decreased by around 39%. This shows that the occurrence of the COVID-19 pandemic has had an impact on the companies in the food and beverage restaurant service sector liquidity ratio.

Based on the results of the different tests of solvency ratio, it can be seen that the value of the different tests of paired sample t-test is asymp. sig is 0.799, where the value is more than 0.05. This shows that there is no significant difference in the solvency ratios of companies in the food and beverage sector before and during the COVID-19 pandemic. The results of this study are similar to previous studies that have been researched by Gunawan (2021), which states that in terms of solvency ratios, the company's ability to pay off its obligations in a timely manner decreased during the COVID-19 pandemic, but did not have a significant impact compared to before the COVID-19 pandemic. (Gunawan, 2021). This study shows that there is no significant difference in the solvency ratio represented by the debt-equity ratio. This can be seen from the number of companies that experienced a decrease in the DER ratio of 10 companies in the food and beverage sector from 23 samples of companies in the food and beverage

sector. In addition, as seen from the average DER of companies in the food and beverage sector before and during the COVID-19 pandemic, the DER ratio decreased. The average solvency ratio represented by DER before the COVID-19 pandemic was 44.22%, and the average solvency ratio represented by the debt-equity ratio during the COVID-19 pandemic was 41.56%. So there was a decrease of about 2.66%. The solvency ratio is used to measure how capable a company is of paying off all of its debts. This shows that companies in the food and beverage sector were able to manage their solvency ratios well during the COVID-19 pandemic.

Meanwhile, based on the results of the different tests of solvency ratio for food and beverage companies in the restaurant service sector, it can be seen that the value of the different tests of the paired sample t-test is 0.006 where the value is less than 0.05. This shows that there is a significant difference in the solvency ratio of companies in the food and beverage restaurant service sector before and during the COVID-19 pandemic. This is in accordance with research conducted by Roosdiana (2021), which examined the impact of the COVID-19 pandemic on the solvency ratio, in this study showed that the COVID-19 pandemic had a significant impact on the solvency ratio (Roosdiana, 2021). This study shows that there are significant differences in the solvency ratio, which is represented by the debt-to-equity ratio. This can be seen from the number of restaurant service companies, all of which experienced an increase in the solvency ratio of 5 companies in the food and beverage restaurant service sector from the 5 sample companies tested. In addition, seen from the average DER of companies in the food and beverage restaurant service sector before and during the COVID-19 pandemic has increased. The average liquidity ratio represented by DER before the COVID-19 pandemic was 48.98%, and the average liquidity ratio represented by DER during the COVID-19 pandemic was 62.04%. So it's an increase of about 26%. This shows that the occurrence of the COVID-19 pandemic has had an impact on companies in the food and beverage restaurant service sector on solvency ratios.

Based on the results of the paired sample t-test, it can be seen that the value of the paired sample t-test is asymp.sig, which is 0.715, where the value is more than 0.05. Thus, there is no significant difference in calculating the Taffler Score of companies in the food and beverage industry sector before and during the COVID-19 pandemic. This can be seen from the number of companies that experienced a decrease in the value of the Taffler Score, as many as 12 companies in the food and beverage sector from 23 samples of companies in the food and beverage industry sector. In addition, as seen from the average Taffler score of companies in the food and beverage sector before and during the COVID-19 pandemic, their T score decreased. The average T score before the COVID-19 pandemic was 14.07, and the average T score during the COVID-19 pandemic was 13.01. So there was a decrease of about 7.53%. The T score is used to measure the potential bankruptcy of a company. If seen from the table above, the average position of the company based on the taffler score is classified as healthy. This is marked by the average t score of companies in the food and beverage industry sector during the COVID-19 pandemic at a value of 13.01. This is far above the maximum value for companies that are classified as bankrupt, which is below a value of 0. This shows that companies in the food and beverage industry sector have good resilience from potential bankruptcy during the COVID-19 pandemic.

Meanwhile, for restaurant service sector companies, based on the results of the paired sample t-test, it can be seen that the value of the paired sample t-test is asymp.sig, which is equal to 0.000, where the value is less than 0.05. Thus it can be concluded that there is a significant difference in calculating the Taffler Score of companies in the food and beverage restaurant service sector before and during the COVID-19 pandemic. The results of a different test for the food and beverage industry sector are different from the results of previous research conducted by Astuti et al. (2021) where the results showed that there was an influence from the COVID-19 pandemic. Companies in the property sector that are experiencing financial difficulties and are predicted to experience bankruptcy have increased from 2% in 2019 to 51% at the end of June 2020 (Astuti et al., 2021). However, the results of research on the restaurant service sector show similar results where the COVID-19 pandemic has had a significant impact on the restaurant service sector. This study shows that there is a significant difference in the bankruptcy test represented by Taffler. This can be seen from the number of companies that experienced a decrease in the value of the Taffler Score, as many as five companies in the food and beverage restaurant service sector from 5 samples of companies in the food and beverage restaurant service sector. In addition, as seen from the average Taffler score of companies in the food and beverage restaurant service sector before and during the COVID-19 pandemic, their T score decreased. The average T score before the COVID-19 pandemic was 4.44, and the average T score during the COVID-19 pandemic was -6.24. So there was a decrease of around 240.63%. The T score is used to measure the potential bankruptcy of a company. If seen from the table above, the average company position based on the taffler score indicates bankruptcy. This is indicated by the average t score of companies in the food and beverage industry sector during the COVID-19 pandemic, which was at -6.24. This is below the maximum value for a company that is classified as bankrupt, which is below a value of 0. This shows that companies in the food and beverage restaurant

service sector lack good resilience from potential bankruptcy during the COVID-19 pandemic.

5. CONCLUSIONS AND SUGGESTIONS

5.1 CONCLUSION

Based on the discussion in this study, it can be concluded as follows:

a. There is a significant difference in the rentability ratio represented by the ROA (return on assets) ratio for companies in the food and beverage industry sector before and during the COVID-19 pandemic. However, other ratios such as the rentability ratio, profitability ratio, liquidity ratio, and solvency ratio show that the COVID-19 pandemic has remained relatively high in industrial sector food and beverage companies. This is different from the restaurant service sector, where the COVID-19 pandemic has had a significant impact on financial performance. This can be seen from the ratios tested, namely the profitability ratio, profitability ratio, solvency ratio, and liquidity ratio, as represented by the ROA, NPM, current ratio, and debt-to-equity ratio showing that there were significant differences in restaurant service sector companies before and during the COVID-19 pandemic. 19.

b. There is no significant difference from the calculation of the Taffler Score for companies in the food and beverage industry sector before and during the COVID-19 pandemic. Meanwhile, for companies in the restaurant service sector, based on the results of the paired sample t-test, it can be concluded that there are significant differences in calculating the Taffler Score for companies in the food and beverage restaurant service sector before and during the COVID-19 pandemic.

5.2 SUGGESTION

This research has some suggestions as follows:

1. For Company Management
   Based on the research above, the impact of the COVID-19 pandemic has had a significant effect on the rentability ratio, which is represented by the return on assets (ROA) ratio for both the industrial sector and the restaurant service sector. This shows that the COVID-19 pandemic caused a decrease in the company's net profit during the COVID-19 pandemic compared to the total assets of the company. With various regulatory restrictions imposed by the government, company managers must think of the best solution to increase sales during this COVID-19 pandemic. Company managers can make sales online either through a website managed by the company or through a marketplace. For food and beverage companies, the restaurant service sector is the sector most affected by the pandemic. This causes managers not only to be able to think of the best solutions to increase sales during the pandemic but also to re-efficient costs so that the company does not experience further financial difficulties.
2. For Government
   With the COVID-19 pandemic having an impact on various economic sectors, it is hoped that it can provide support for entrepreneurs so that they can survive during the COVID-19 pandemic through policies that can boost people's purchasing power and loosen restrictions on community activities as long as they do not violate health protocols.
3. For Academics
   Subsequent research can use bankruptcy prediction methods other than the Taffler score, expand the sectors to be studied and increase the research period after the pandemic ends in order to find out the impact of COVID-19 after the COVID-19 pandemic ends.

5.3 LIMITATIONS

This research has several limitations, as follows:

1. In using the bankruptcy prediction method, only one method is used, namely the Taffler score. Future research can use other methods such as Zmijewski, Grover, Altman Z Score, and others.
2. In this study, the years studied were only 2019 and 2020, namely the period before and during the pandemic. Further research is expected to increase the research period after a pandemic occurs if the COVID-19 pandemic is declared over in the future.

REFERENCES

Abdullah, A., Achsani, N. A., & Suhendi. (2020). Bankruptcy Analysys Of National Airlines Companies In Regional Asia After COVID-19 Pandemic. Jurnal Aplikasi Bisnis Dan Manajemen (JABM).

Agarwal, V., & Taffler, R. J. (2007). Twenty-five years of the Taffler z-score model: Does it really have predictive ability? Accounting and Bussines Research, 285–300.

Al-Kassar, T. A., & Soileau, J. S. (2014). Financiali Performance Evaluation and Bankruptcy Prediction. Arab Economics And Business Journal, 147–155.

Astuti, S., Damayanti, A., Chasbiandani, T., & Rizal, N. (2021). Pandemi COVID-19 Dalam Penyajian Pelaporan Keuangan dan Keberlangsungan Usaha melalui Prediksi Kebangkrutan. AFRE (Accounting and Financial Review), 165–171.

Bimpong, P., Arhin, I., Nan, T. H., Danso, E., Opoku, P., Benedict, A., & Tettey. (2020). Assesing Predictive Power and Earnings Manipulations. Applied Study on Listed Consumer Goods and Service Companies in Ghana Using 3 Z-score Models. Expert Journal of Finance, 1–26.

Cimpoeru, S. (2014). Scoring Functions and Bankruptcy Prediction Models-Case Study For Romanian Companies. Procedia Economics and Finance, 217–226.

Darsono, & Ashari. (2005). Pedoman Praktis Memahami Laporan Keuangan. CV Andi Offset.

Febriantika, Y. J., Prasetyo, T. J., & Dharma, F. (2021). Analysis of Financial Performance and Company Value Before and During The Covid-19 Pandemic; Study on Manufacturing Companies Listed on IDX. Journal Dimensie Management and Public Sector, 62–68.

Gunawan, O. F. (2021). Pengaruh Profitabilitas, Likuiditas, dan Solvabilitas Terhadap Nilai Perusahaan (Studi Empiris Pada Perusahaan Manufaktur yang Terdaftar di BEI tahun 2017-2019. Universitas Sanata Dharma.

Hilman, C., & Laturette, K. (2021). Analisis Perbedaan Kinerja Perusahaan Sebelum dan Saat Pandemi COVID-19. Balance: Jurnal Akuntansi, Auditing Dan Keuangan, 91–109.

Kasmir. (2017). Analisis Laporan Keuangan. Raja Grafindo Persada.

Khan, K. M., & Ullah, N. (2021). Post COVID-19 financial distress in Pakistan Prediction of Corporate Defaults at Pakistan Stock Exchange. Liberal Arts And Social Sciences International Journal (LASSIJ), 386–400.

Lowardi, R., & Abdi, M. (2021). Pengaruh Pandemi COVID-19 Terhadap Kondisi Keuangan Perusahaan Publik Sektor Properti. Jurnal Manajerial Dan Kewirausahaan, III, 463–470.

Lumenta, M., Gamaliel, H., & Latjandu, L. D. (2021). Analisis Perbandingan Kinerja Keuangan Perusahaan Transportasi Sebelum dan Saat Pandemi Covid-19. Jurnal Riset Ekonomi, Manajemen, Bisnis Dan Akuntansi, 341–354.

Maisyarah, S., & Haryono, S. (2021). Analisis Prediksi Kebangkrutan Terhadap Perbandingan Model Prediksi (Springate, Zmijewski, Taffler & Altman Z-Score). JURNAL AKUNTANSI, 9, 15–26.

Mulianto, A., Wijaya, K., & Jogi, Y. (2020). Pengaruh Pandemi COVID-19 Terhadap Profitabilitas Perusahaan Industri Barang Konsumsi Subsketor Makanan Dan Minuman, Kosmetik dan Rumah Tangga dan Obat-obatan Yang Terdaftar di BEI. Accounting Departement, Petra Christian University.

Prakoso, W. H., Ulupui, I. K., & Perdana, P. N. (2022). Analisis Perbandingan Model Taffler, Springate, dan Grover dalam Memprediksi Kebangkrutan Perusahaan. Jurnal Akuntansi, Perpajakan, Dan Auditing-JAPA 3, 1–15.

Pratama, E. H., Pontoh, W., & Pinatik, S. (2021). Analisis Dampak COVID-19 Terhadap Kinerja Keuangan Perusahaan Ritel Yang Terdaftar Di Bursa Efek Indonesia. Jurnal Riset Akuntansi 16(2), 111–118.

Roosdiana, R. (2021). Dampak Pandemi COVID-19 Terhadap Kinerja Perusahaan Property dan Real Estate Yang Terdaftar di BEI. IKRA-ITH Ekonomika 4(2), 133–141.

Siswati, A. (2021). Dampak Pandemi Covid-19 Pada Kinerja Keuangan (Studi Kasus Pada Perusahaan Teknologi Yang Listing Di BEI. Jibaku: Jurnal Ilmiah Bisnis, Manajemen, 63–73.

Victoria, R. B. (2020). Deep Recurrent Convolution Neural Network For Bankruptcy Predicton: A Case Of The Restaurant Industry. Journal MDPI Sustainability.

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Appendix

Table 1 Calculation of Financial Performance Ratios and the Taffler model
Food Beverage Industry And Restaurant Services

No	Company Code	Rentability Ratio		Profitability Ratio		Liquidity Ratio		Solvency Ratio		Taffler Score	
		2019	2020	2019	2020	2019	2020	2019	2020	2019	2020
1	ADES	10,20%	14,16%	10,97%	20,17%	200,42%	297,04%	30,94%	26,94%	13,72	24,02
2	ALTO	-0,67%	-0,95%	-2,15%	-3,27%	88,38%	82,79%	65,50%	66,28%	-3,36	-4,08
3	HOKI	12,22%	4,19%	6,27%	3,24%	298,59%	224,40%	24,40%	26,94%	18,86	9,43
4	CAMP	7,26%	4,05%	7,46%	4,60%	1263,37%	1326,73%	6,13%	6,30%	57,82	49,47
5	DLTA	22,29%	10,07%	38,42%	22,60%	805,05%	749,85%	14,90%	16,78%	73,11	51,29
6	GOOD	8,61%	3,73%	5,16%	3,18%	153,38%	175,12%	26,10%	55,95%	9,51	5,96
7	ICBP	13,85%	7,16%	12,67%	15,91%	253,57%	225,76%	31,10%	51,42%	20,61	18,51
8	INDF	6,14%	5,36%	7,71%	10,71%	127,21%	137,33%	43,66%	51,49%	6,17	7,81
9	KINO	10,98%	2,16%	11,02%	2,82%	134,73%	119,37%	42,44%	50,96%	6,78	1,23
10	MYOR	10,78%	10,61%	8,20%	8,57%	343,97%	369,43%	47,94%	43,01%	16,54	17,80
11	KEJU	14,71%	17,93%	10,02%	13,43%	247,87%	253,62%	34,61%	34,66%	15,37	17,26
12	MLBI	41,63%	9,82%	32,50%	14,39%	73,19%	88,85%	60,44%	50,70%	9,02	2,71
13	ROTI	5,05%	5,31%	7,09%	7,36%	169,33%	383,03%	33,95%	27,50%	10,00	14,05
14	PSDN	-3,37%	-6,83%	-2,10%	-5,84%	75,57%	76,89%	76,95%	84,30%	-3,02	-5,05
15	PCAR	-9,21%	-13,93%	-18,31%	-30,88%	245,06%	296,84%	32,47%	38,39%	7,49	1,72
16	CLEO	10,50%	10,13%	12,05%	13,65%	117,47%	172,28%	38,46%	31,75%	12,15	17,52
17	SKBM	0,05%	0,31%	0,05%	0,17%	133,01%	136,06%	43,10%	45,61%	1,23	1,70
18	SKLT	5,68%	5,49%	3,51%	3,39%	129,01%	153,67%	51,90%	47,41%	3,22	4,99
19	FOOD	1,54%	-15,37%	1,45%	-18,40%	112,93%	74,71%	37,55%	50,31%	2,71	-7,35
20	STTP	16,75%	18,23%	13,74%	16,34%	285,30%	240,50%	25,46%	22,49%	25,40	23,24
21	AISA	60,72%	59,90%	75,13%	93,89%	41,14%	81,29%	188,70%	58,83%	-44,86	6,02
22	ULTJ	15,67%	12,68%	16,65%	18,60%	444,41%	240,34%	14,43%	45,38%	35,89	16,96
23	CEKA	15,47%	11,61%	6,90%	5,00%	479,97%	466,27%	18,79%	19,53%	29,50	24,24
Average		12,04%	7,65%	11,50%	9,55%	270,56%	277,05%	43,04%	41,43%	14,08	13,02
No	Company	Rentability Ratio		Profitability Ratio		Liquidity Ratio		Solvency Ratio		Taffler Score	
		2019	2020	2019	2020	2019	2020	2019	2020	2019	2020
1	CSMI	-8,74%	-30,25%	-5,72%	-49,06%	65,50%	28,55%	70,96%	75,23%	-4,67	-14,07
2	FAST	7,09%	-10,12%	3,60%	-7,79%	164,85%	105,60%	51,26%	66,55%	7,39	-3,59
3	MAPB	8,02%	-6,75%	5,35%	-8,06%	97,57%	56,77%	40,23%	58,23%	4,95	-5,67
4	PZZA	9,48%	-4,19%	5,02%	-2,70%	131,86%	83,19%	36,47%	48,44%	9,49	-1,55
5	PTSP	8,13%	-12,88%	3,97%	-13,15%	100,32%	67,20%	45,98%	61,76%	5,06	-6,35
Average		4,80%	-12,84%	2,45%	-16,15%	112,02%	68,26%	48,98%	62,04%	4,44	- 6,25

Source: SPSS

Table 2 Normality Test of Sector Ratio Variables
Food Beverage Industry And Restaurant Services

Kolmogorov-Smirnov test	Rentability Ratio				Profitability Ratio				Liquidity Ratio				Solvency Ratio				Taffler Score			
	Industry		Restaurant Services		Industry		Restaurant Services		Industry		Restaurant Service		Industry		Restaurant Services		Industry		Restaurant Services	
	2019	2020	2019	2020	2019	2020	2019	2020	2019	2020	2019	2020	2019	2020	2019	2020	2019	2020	2019	2020
Kolmogorov-smirnov	1,165	0,928	0,936	0,667	1,323	1,122	0,892	0,813	1,161	1,217	0,496	0,325	1,114	0,54	0,521	0,336	0,859	0,693	0,802	0,749
Asymp.Sig. (2-tailed)	0,132	0,356	0,345	0,765	0,06	0,161	0,404	0,523	0,135	0,103	0,966	1	0,167	0,94	0,949	1	0,451	0,723	0,54	0,629

Source: SPSS

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Table 3. Variable Paired Sample T-Test
Ratio of the Food and Beverage Industry Sector and Restaurant Services

Paired Sample T-Test	Rentability Ratio		Profitability Ratio		Liquidity Ratio		Solvency Ratio		Taffler Score	
	Industry	Restaurant Services	Industry	Restaurant Services	Industry	Restaurant Services	Industry	Restaurant Services	Industry	Restaurant Services
Asymp. Sig. (2-tailed)	0.012	0.000	0.290	0.043	0.680	0.001	0.799	0.006	0.715	0.000

Source: SPSS