Comparison Analysis of Financial Performance and Financial Distress before and during the Covid-19 Pandemic

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Abstract: The purpose study was to analyze a comparison of financial performance and financial distress before and during the Covid-19 pandemic in the Hotel, Restaurant, and Tourism sub-sector companies listed on the Indonesia Stock Exchange for the 2018-2021 period. In this study, a comparative descriptive method was used with a quantitative approach to test the impact of Covid-19 on financial performance and financial distress. The final sample of this study was 19 companies based on the elimination of the criteria that were only needed in this study. The proxies used to measure financial performance are profitability ratios (ROA, ROE, and NPM), while financial distress uses the Altman Z-Score model. Furthermore, these ratios were tested with a different test using the Wilcoxon sign rank test. The results showed that there were significant differences in the ratios of financial performance which included ROA, ROE, and NPM. Meanwhile, financial distress (Z-Score) also experienced significant differences between before and during the Covid-19 pandemic.

Introduction

In 2019, the world was shocked by the emergence of Coronavirus disease 2019 (Covid-19), which was first detected in Wuhan City, Central Hubei Province, China (Shirani, et al., 2020). According to the World Health Organization, the Covid-19 virus is an infectious

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disease caused by the SARS-CoV-2 virus, which can attack the human respiratory system and cause acute infections that lead to death. The virus can be spread from the mouth or nose of an infected person in small liquid particles when they cough, sneeze, talk, breathe, or sing (Việt, 2021). Within three months, this virus transformed into a pandemic that forced the world to face an unprecedented situation, as well as a social and economic challenge worldwide.

One of the economic sectors that has felt a significant impact from Covid-19 is the tourism sector. With an appeal from the government for residents to stay at home and limit outside activities and mobility for the sake of health and safety together. This condition has a direct impact on the tourism sector, whose main activity is the movement or mobility of people. According to the United Nations World Tourism (UNWTO), tourism is experiencing the exhaust crisis of a decrease in international tourist arrivals by 72.1% in 2020 compared to the previous year, namely from 1.5 billion in 2019 to around 409 million in 2020 (Universitas Terbuka, 2021). This loss is due to widespread travel restrictions and a decline in tourist arrivals. The World Travel and Tourism Council (WTTC) stated that data from research conducted showed that around 50 million people in the tourism sector lost their jobs due to the Covid-19 pandemic.
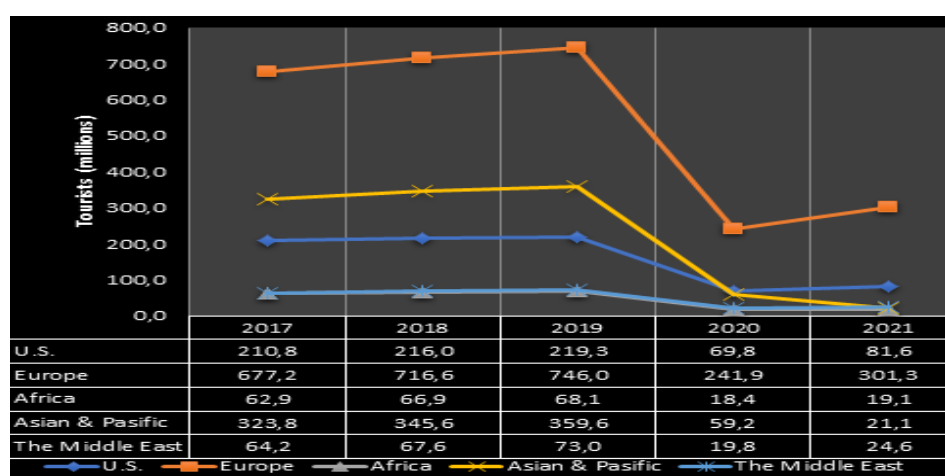

	2017	2018	2019	2020	2021
U.S.	210,8	216,0	219,3	69,8	81,6
Europe	677,2	716,6	746,0	241,9	301,3
Africa	62,9	66,9	68,1	18,4	19,1
Asian & Pasific	323,8	345,6	359,6	59,2	21,1
The Middle East	64,2	67,6	73,0	19,8	24,6

Figure 1 Visits of International Tourists
Source: UNWTO (Processed Author's in 2023)

International tourist arrivals across all continents in 2020 experienced a significant decline due to the Covid-19 pandemic. The American and European continents experienced the littlest comedown in international tourist visits compared to other continents, i.e., 68%. Then followed by the continents of Africa and the Middle East by 73%, and the continents that experienced the most decline were the continents of Asia and the Pacific by 84%.

The health services sector recorded high growth in line with the increasing demand for medicines and medical equipment for the treatment of patients infected with the Corona

virus. The government's massive Covid-19 vaccination has also contributed to the growth of the health services sector.

Figure 2 Hotel Occupancy Rates in 2017-2021
Source: www.bps.go.id (Processed Author's in 2023)

In the 2018-2019 period, the average Room Occupancy Rate (TPK) in star hotels was above 50%. Meanwhile, the ROR for non-star hotels is above 30%. However, due to the Covid-19 pandemic, the TPK for star-rated hotel occupants is above 30% and non-starred hotels is above 18%, in other words, the TPK has decreased significantly in 2020.

The decline in tourism indicators during the Covid-19 pandemic will potentially lead to a decline in financial performance for tourism companies, especially in the hotel, restaurant, and tourism sub-sector. Financial performance or financial performance is a description of the financial condition of a company which is analyzed with financial analysis tools so that it can be known about the good and bad conditions of a company that describes work performance in a certain period. Kasmir (2018) stated the indicators used to assess a company's ability to earn profit or profit are called profitability ratios which consist of Return On Assets (ROA), Return On Equity (ROE), and Net Profit Margin (NPM) ratios. Due to the Covid-19 pandemic, several companies in the hotel, restaurant, and tourism sub-sector have experienced a decline in profits. among others, PT Hotel Sahid Jaya Internasional Tbk experienced a decrease in profits of 50.19% in the first semester of 2020 when compared to the previous period, while PT Dafam Property Indonesia Tbk experienced a decrease in profits in the first semester of 2020 of 56.15% compared to the previous period (Jatmiko, 2020).

Profitability factors are widely used to describe the attractiveness of a business to investors in measuring company performance. The proxy commonly used is the return on company ownership in units of assets (Yanti, Pasupati, & Husain, 2022). The impact caused by the Covid-19 pandemic is not only felt in a decrease in company financial performance but can

also cause financial distress which can lead to bankruptcy of a company. This happened because the company experienced financial difficulties making it difficult to pay off short-term to long-term obligations using its assets According to Sucipto (2017), financial distress refers to a condition in which the company's finances experience difficulties and occurs before bankruptcy, this condition occurs when the company experiences losses for several years. One of the companies in the hotel, restaurant, and tourism sub-sector that experienced financial distress was PT Bukit Uluwatu Villa Tbk (BUVA). In 2020 BUVA's sales experienced a drastic decline of 88.92% from the previous year, then in 2021, it fell again by 9.55%. This has resulted in BUVA not being able to fulfill all current obligations to stakeholders (CNBC Indonesia, 2022).

Several studies discuss financial performance and financial distress. According to Sari & Setyaningsih's research (2022) said that there were differences in financial distress, NPM, ROA ROE before and after Covid-19 in manufacturing companies, whereas according to research by Pratama, et al (2021) ROA and ROE differences before and during the Covid-19 pandemic, while NPM had no differences before and during the Covid-19 pandemic in retail companies. According to Kurniasih's research (2022), the number of companies in the restaurant, hotel, and tourism sub-sector experiencing financial distress during the Covid-19 pandemic was found to be higher than before the pandemic. Based on this background, making the discussion about the impact of the Covid-19 pandemic on financial performance and financial distress conditions of companies is interesting to study. Because it is very important to provide information about the level of profitability and financial condition of a company to investors before investing in the company.

Problems Identification and Research Objectives

The identification of the problem from this research is the decline in tourism indicators such as tourist visits and hotel room occupancy rates (TPK) from 2019 to 2020 due to Covid-19 so many hotel, restaurant, and tourism sub-sector companies experience a decrease in revenue or profit. The purpose study was to analyze a comparison of financial performance and financial distress before and during the Covid-19 pandemic in the Hotel, Restaurant, and Tourism sub-sector companies listed on the Indonesia Stock Exchange for the 2018-2021 period.

Stakeholder Theory

The term stakeholder was first used by the Stanford Research Institute in 1963, then understanding began to develop so that stakeholder theory emerged in a company. The theory can be used to identify, research, build and develop coordinating relationships

between stakeholders (Donaldson & Preston, 1995). Meantime, the stakeholder theory believes that the enterprise is a relation of the bond between sundry stakeholders, both implicitly and explicitly (Sarwani & Husain, 2021).

A company is an institution that has goals to achieve not only for the benefit of individuals but also for stakeholders such as shareholders, creditors, consumers, suppliers, government, community, analysts, and other parties. Business actions are influenced by stakeholders to disclose information widely regarding corporate governance that has been implemented.

Signalling Theory

The signaling theory was first put forward by Spence (1973) who said that the sender (owner of the information) gives a signal or signal in the form of information that reflects the condition of a company that is beneficial to the recipient (investor) (Connelly, Certo, Ireland, & Reutzel, 2011). This standard is the easiest benchmark for investors to determine whether the firm's performance is good or bad as a 'signaling theory cue' (Sarwani & Husain, 2021).

This theory describes an action taken by management to provide guidance to investors about how management views the company's prospects in the future. The use of signal theory is related to profitability (Sudarno, Renaldo, Hutauruk, & Junaedi, 2022). In a financial report, investors can analyze a company's performance and the health condition of a company, whether it tends to be profitable or is it experiencing financial distress.

Financial Performance

The company as a form of organization generally has certain goals to be achieved to fulfill the interests of its members (Taouab & Issor, 2019). Financial performance is a description of the financial condition of a company which is analyzed with financial analysis tools so that it can be known about the good and bad condition of a company that describes work performance in a certain period.

Kasmir (2018) states that an analysis of financial reports can be interpreted as an accounting procedure as well as an assessment of financial statements that will generate knowledge regarding the financial condition of a company, one of which is by using an analysis of financial ratios. Financial performance is basically an assessment of financial results measured in a certain period, whether progress or vice versa. This assessment is usually compared from one period to another. Financial performance measures can be analyzed using several financial ratios. There are several measurements of financial ratios, especially looking at profitability-based performance used in this study, i.e;

$$Net\ Profit\ Margin\ \text{(NPM)} = \frac{Earning\ after\ Interest\ and\ Tax}{Sales}$$

The ratio of profit to total sales is the ratio used in measuring the profit margin earned in each sale. This ratio is used to find out how much net income a company earns from a sale so that it can be seen how effective management is in minimizing costs to generate sales profits (Kasmir, 2018, hal. 108).

$$Return\ On\ Assets\ (\text{ROA}) = \frac{Earning\ after\ Interest\ and\ Tax}{Total\ Assets}$$

Return on Assets (ROA) is a ratio to analyze the level of profit or results obtained by a company using its assets. The profit earned will later be able to show the level of productivity from the use of funds in the company, and then indicators showing that if this ratio increases, the assets that have been used optimally will achieve income (Citarayani, Quintania, & Handayani, 2021). But, the smaller this ratio, the more negative the impact, and vice versa. So this ratio can be used to measure the level of effectiveness of the company (Kasmir, 2018, hal. 201).

$$Return\ On\ Equity\ (\text{ROE}) = \frac{Earning\ after\ Interest\ and\ Tax}{Total\ Equity}$$

This ratio will show the level of efficiency of the use of equity in a company. When the value of this ratio is high, it will have a good impact because the position of the shareholders will get stronger and vice versa (Kasmir, 2018, hal. 204).

Financial Distress

Business failure is not limited to one particular industry or company but can be experienced by all industries or companies. Various factors can cause a company to fail, including economic factors, mismanagement, and natural disasters (Watson, 2003). Companies that fail in their operations will have an impact on the company's financial difficulties. Financial distress refers to a condition in which the company's finances experience difficulties and occurs before bankruptcy, this condition occurs when the company has suffered losses for several years (Sucipto & Muazaroh, 2017).

In general, financial distress describes the condition of a company's failure to pay off its maturing debts and is accompanied by the elimination or reduction in dividend payments. This condition occurs due to continuous changes in profits which tend to move in a negative direction. There are several types of financial distress, i.e.,: (1) Economic failure: occurs when the company's total revenue cannot cover the company's total cost, including the cost of capital. Companies in this condition can continue their business if creditors are willing to provide capital and company owners are willing to accept the fact that their profits are below market rates of returns. (2) Business failure; occurs when the company has closed its operations resulting in losses for its creditors. (3) Technical insolvency: occurs when the

company cannot fulfill its financial obligations in time. (4) Insolvency in bankruptcy: occurs when the book value of the total debt exceeds the market value of the total assets. (5) Legal bankruptcy: occurs when a company has been declared bankrupt according to the laws of a country (Yuniarto, Rubiyatno, Adinata, & Putra, 2022).

Model Altman Z-Score

The Z-Score model is a method used to predict corporate sustainability by combining several financial ratios put forward by a professor from New York University (Altman) called the 'Altman Bankruptcy Prediction Model Z-Score' in 1968. This model emphasizes profitability as the component that most influences bankruptcy. The Altman Z-Score's model was first proposed by:

$$Z = 1,2X_1 + 1,4X_2 + 3,3X_3 + 0,6X_4 + 1,0X_5$$

Over time and adjustments to various types of company industries, Hery (2016) said that Altman then revised his model so that it could be used for all companies such as manufacturing, non-manufacturing, and bond-issuing companies in developing countries. The following is a Modified Altman Z-Score Model in 1984 used to analyze potential bankruptcy:

$$Z'' = 6,56X_1 + 3,26X_2 + 6,72X_3 + 1,05X_4$$

Explanation:

Z =Total Z-Score

X1 =Net Working Capital to Total Assets

X2=Retained Earnings to Total Assets

X3=Earning Before Interest and Tax to Total Assets

X4 = Market Value of Equity to Book Value of Debt

The classification of the results of the above calculations is as follows:

1. Safe zone = Z > 2.6

2. Gray or gray zone = 1.1 < Z < 2.6

3. Distress zone = Z < 1.1

Research Model

The development of an alternative hypothesis begins with designing a conceptual model into a framework. A model is a measure that requires special parameters and is also limited in the form of structure, content, or a certain meaning (Husain, 2019). Then, theoretical models during the research process can provide the ability to relate different theories to each other and form proposed statements into a hypothesis (Indeed Editorial Team, 2023).
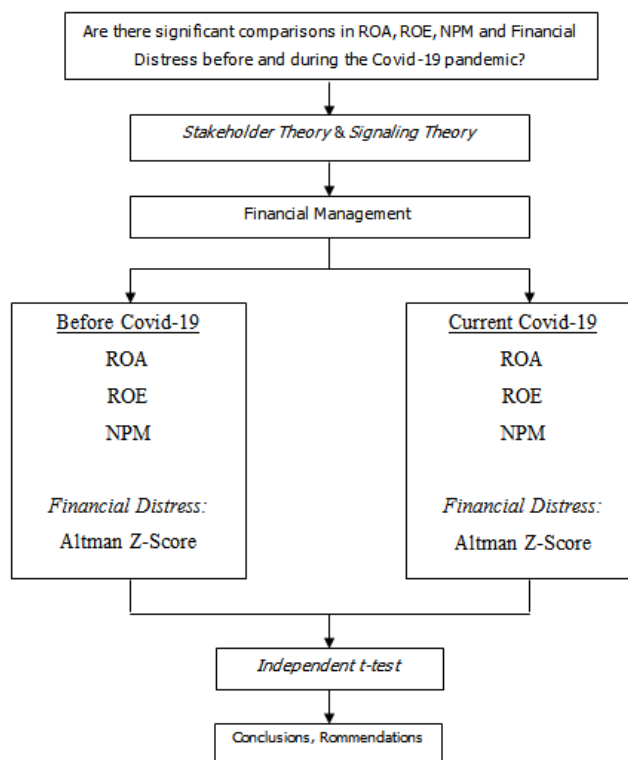
Figure 3 Research Model
Source: Develop from Author's (2023)

H_1 is expected that there is a significant difference in the ROA (return on assets) before and during the Covid-19 pandemic.

H_2 is expected that there is a significant difference in the ROE (return on equity) before and during the Covid-19 pandemic.

H_3 is expected that there is a significant difference in the NPM (net profit margin) before and during the Covid-19 pandemic.

H_4 is expected that there is a significant difference in the Altman *Z-Score* before and during the Covid-19 pandemic.

Research Method

In this study, a comparative descriptive method was used with a quantitative approach to test the impact of Covid-19 on financial performance and financial distress. This is also known as ordinary comparative research and pre-experimental research. The basic objective of this design is to determine the relationship between variables (Cantrell, 2011). Research on the impact of the crisis caused by the Covid-19 pandemic on sub-hotels, restaurants and tourism will be carried out from November 2022 to February 2023.

The research population is taken from part of the number and characteristics possessed by the people and its aspects to be studied, which are declared as research samples (Sugiyono, 2018, hal. 62). The population in this study was 45 companies in the hotel, restaurant, and tourism sub-sector. The selection of the sample in this study was carried out using a purposive sampling technique, where the final sample of this study was 19 companies based on the elimination of the criteria that were only needed in this study.

The collection technique uses the documentation method from documents related to financial performance and financial distress as well as data related to the characteristics of the research sample as well as other supporting data collected using library data-based and accessing websites and sites that provide information relating to the problems in this study.

The data in this study comes from the financial reports of the hotel, restaurant and tourism sub-sector companies that have been listed on the Indonesia Stock Exchange in 2018-2021. Data is sourced from the official IDX website, namely www.idx.co.id and several other sources.

The operationalization of theoretical concepts, i.e., the specification of the theoretical concepts in the structural, and representing the theoretical concepts can be related via the structural model (Benitez, Henseler, Castillo, & Schuberth, 2020). The variables in this study are operated in the following table:

Table 1 Operational Variables

Variable	Dimension	Indicators	Scale
Financial Performance	*Return On Asset* (ROA)	$\dfrac{Earning\ After\ Interest\ and\ Tax}{Total\ Asset}$	Rasio
	Return On Equity (ROE)	$\dfrac{Earning\ After\ Interest\ and\ Tax}{Equity}$	Rasio
	Net Profit Margin (NPM)	$\dfrac{Earning\ After\ Interest\ and\ Tax}{Sales}$	Rasio
Financial Distress	Altman *Z-Score*	$Z = 6{,}56X_1 + 3{,}26X_2 + 6{,}72X_3 + 1{,}05X_4$	Rasio

Source: Develop from Author's (2023)

After getting the data in the form of a ratio consisting of ROA, ROE, NPM, and the Z-Score Altman's, the data analysis technique with stages of descriptive statistical test, normality test (classical assumptions), and hypothesis testing. If the data has a normal distribution pattern, it will be followed by a different test using parametric statistics, namely the paired sample t-test, but if the normality test results show otherwise, a non-parametric statistical test will be used namely the Wilcoxon signed-rank test (Ghozali, 2018, hal. 66). Both of these tests are

statistical tests that are often used in conducting different tests in pre and post-research models so that the effect of a treatment on an object in two different periods will be known.

In this study, researchers used a different test with the paired sample t-test and the Wilcoxon signed rank test to determine how significant the impact of the Covid-19 crisis was on financial performance and financial distress in the hotel, restaurant, and tourism sub-sector companies on the Indonesia Stock Exchange. This test is used to compare ROA, ROE, NPM, and Altman Z-Score in 2018 to 2019, namely the period before the Covid-19 pandemic crisis with 2020 to 2021, namely the period when the Covid-19 pandemic crisis took place.

Result and Discussion

The following is the result of descriptive statistical analysis using SPSS Program *Ver*23 on the variables ROA, ROE, NPM, and the Z-Score of the hotel, restaurant, and tourism sub-sector companies on the Indonesia Stock Exchange.

Table 2 Results of Descriptive Statistical Analysis

	Min. Score	Max. Score	Mean Score	Std. Deviation Score
ROA before COVID-19 Pandemic ROA current COVID-19 Pandemic	-0.07 -0.25	0.25 0.09	0.0279 -0.0490	0.05902 0.06100
ROE before COVID-19 Pandemic ROE current COVID-19 Pandemic	-0.10 -1.41	0.35 0.13	0.0491 -0.1518	0.09639 0.26778
NPM before COVID-19 Pandemic NPM current COVID-19 Pandemic	-1.41 -6.53	6.35 0.62	0.3341 -0.5425	1.45467 1.17701
Z-score before COVID-19 Pandemic Z-score current COVID-19 Pandemic	0.36 -3.04	13.19 23.74	5.3459 3.0864	3.12577 4.35730

Source: Processed from SPSS Program (2023)

The ROA variable before the pandemic had a minimum value of -0.07 and a maximum value of 0.25 and during a pandemic, the minimum value was -0.25 and the maximum value was 0.09. This shows that the company's ability to achieve the highest or maximum profit has decreased during the pandemic and the minimum value of ROA tends also to decrease. Meanwhile, the mean before the pandemic was 0.0279 with a standard deviation of 0.05902 and during the pandemic, the mean was -0.0490 with a standard deviation of 0.06100. This also shows that descriptive statistics show a downward trend from the average ROA between before and during the Covid-19 pandemic.

The ROE variable showed that before the pandemic the minimum value was -0.10 and the maximum value was 0.35. While during the pandemic the minimum value of ROE was -1.41 and the maximum value was 0.13. Based on these results, it can be seen that the highest

return on equity that can be achieved by tourism companies has decreased from before the pandemic to during the pandemic. Then, there was a decrease in the mean return on equity before the pandemic by 0.0491 with a standard deviation of 0.09636 while during the pandemic it had to decline to minus, namely -0.1518 with a standard deviation of 0.26778.

Furthermore, the NPM variable shows that before the pandemic the minimum NPM value that could be achieved was -1.41 with a maximum value of 6.35. During a pandemic, the minimum value was -6.53 and the maximum value was 0.62. Based on these results, it can be seen that there was a decrease in the company's ability to achieve the maximum value of the NPM before and during the pandemic. In addition, based on the mean value listed in the table, the results show a decrease in the NPM between before and during the Covid-19 pandemic, which was 0.3341 with a standard deviation of 1.45467 before the pandemic and decreased during the pandemic to -0.5425 with a standard deviation of 1,17701.

Finally, based on the results of the descriptive statistical test for the Z-Score which represents the potential for bankruptcy, it shows a minimum result of 0.36 and a maximum result of 13.19 before the pandemic and during the pandemic the company's Z-Score shows a minimum score of -3.04 and a maximum score of 23.74. In addition, there was a decrease in the mean Z-Score between before and during the pandemic, which was 5.3459 with a standard deviation of 3.12577 before the pandemic and had experienced a decrease in the mean to 3.0864 with a standard deviation of 4.35730 during the pandemic. A decrease in the minimum value and the mean Z-Score can be interpreted as a decrease in the company's financial health condition, the lower it is, the greater the potential for bankruptcy.

Normality Test

The normality test in this study uses the Kolmogorov Smirnov test which aims to test whether the data distribution is normal. The results of this test will later be used as a benchmark for using a different test for paired samples, whether to use the paired sample t-test or the Wilcoxon test. The following are the results of the Kolmogorov Smirnov test on the ROA, ROE, NPM, and Z-Score variables from the hotel, restaurant, and tourism sub-sector companies.

Table 3 Normality Test Results

	Normal Parameters [a,b]		Most Extreme Differences				Asymp. Sig
	Mean Score	Std. Deviation	Absolute	Positive	Negative	Test Statistic	(2-tailed)
ROA before COVID-19 Pandemic	0.0279	0.05902	0.118	0.118	-0.118	0.118	0.200[c,d]
ROA current COVID-19 Pandemic	-0.0490	0.06100	0.126	0.122	-0.126	0.126	0.135[c]

ROE before COVID-19 Pandemic	0.0491	0.09639	0.122	0.122	-0.102	0.122	0.166[c]
ROE current COVID-19 Pandemic	-0.1518	0.26778	0.231	0.216	-0.231	0.231	0.000[c]
NPM before COVID-19 Pandemic	0.3341	1.45467	0.408	0.408	-0.261	0.408	0.000[c]
NPM current COVID-19 Pandemic	-0.5425	1.17701	0.238	0.238	-0.214	0.238	0.000[c]
Z-score before COVID-19 Pandemic	5.3459	3.12577	0.097	0.097	-0.084	0.097	0.200[c,d]
Z-score current COVID-19 Pandemic	3.0864	4.35730	0.149	0.149	-0.129	0.149	0.033[c]

a. Test distribution is Normal
b. Calculated from data.
c. Lilliefors Significance Correction
d. This is a lower bound of the true significance.
Source: Processed from SPSS Program (2023)

Based on the test results in the table above, it can be inferred that:

1. ROA before the pandemic had a normal distribution because the asymp.sig (2-tailed) results showed a value of 0.200 while ROA during the pandemic showed an asymp.sig (2-tailed) value of 0.135, which both values were greater than 0.05 which means that the data is normally distributed.

2. The ROE from asymp.sig (2-tailed) before the pandemic was 0.166, which means that the data is normally distributed because it is greater than 0.05 and the ROE during the pandemic is 0.000, which means that the data is not normally distributed because it is less than 0.05.

3. NPM before and during the pandemic had the same asymp. sig (2-tailed) value of 0.000 which is smaller than 0.05, this indicates that the data is not normally distributed.

4. Finally, based on the normality test, the result of an asymp sign 2 tailed Z-Score before the pandemic was 0.200, which means that the data is normally distributed because it is greater than 0.05 and the Z-Score during the pandemic was 0.033, which means that the data is not normally distributed because it is smaller than 0.05.

Hypothesis Test

The hypothesis test carried out in this study was a different test of paired samples, a non-parametric statistical test, namely the 'Wilcoxon signed rank-test'. This test was chosen because there are data that are not normally distributed. Later the results of this test will show whether there are differences in financial performance and financial distress caused by the Covid-19 pandemic with the proxies used are ROA, ROE, NPM, and Z-Score in the hotel, restaurant, and tourism sub-sector companies.

Table 4 Wilcoxon Signed Rank Test Results

	Z	Asymp. Sig. (2-tailed)
ROA before COVID-19 Pandemic current COVID-19 Pandemic	-.5.040[b]	0.000
ROE before COVID-19 Pandemic current COVID-19 Pandemic	-5.098[b]	0.000
NPM before COVID-19 Pandemic current COVID-19 Pandemic	-4.677[b]	0.000
Z-score before COVID-19 Pandemic current COVID-19 Pandemic	-4.430[b]	0.000

a. Wilcoxon Signed Ranks Test

b. Based on negative from renks.

Source: Processed from SPSS Program (2023)

Based on the test results in the table above, it can be inferred that:

1. ROA has an asymp value. *sig 2 tailed* of 0.000, which is smaller than 0.05, so it can be concluded that there is a significant difference in the ROA of the hotel, restaurant, and tourism sub-sector companies between before and during the Covid-19 pandemic. The results show that H_1 is accepted.

2. ROE has an asymp value. *sig 2 tailed* of 0.000 which is smaller than 0.05 so it can be concluded that there is a significant difference in the ROE of the hotel, restaurant, and tourism sub-sector companies between before and during the Covid-19 pandemic. The results show that H_2 is accepted.

3. Furthermore, NPM has an asymp value. *sig 2 tailed* of 0.000 which is smaller than 0.05 so it can be concluded that there is a significant difference in the ROE of the hotel, restaurant, and tourism sub-sector companies between before and during the Covid-19 pandemic. The results show that H_3 is accepted.

4. Then finally there is the Z-Score which has an asymp value. *sig 2 tailed* is 0.000 which is smaller than 0.05. This shows that there is a significant difference in the potential for bankruptcy projected with the Z-Score between before and during the Covid-19 pandemic in the hotel, restaurant, and tourism sub-sector companies. The results show that H_4 is accepted.

Discussions

The ROA Z score is -5.040 which indicates a decrease in ROA during the Covid-19 pandemic. The decrease in ROA was due to the company's decreased ability to manage its assets to generate a net profit for a certain period. The company's net profit has decreased due to the

Covid-19 pandemic. The existence of regulations issued by the government and people's fears has resulted in a decrease in the number of tourist visits to hotels, restaurants, and other tourist attractions. Meanwhile, the company still bears operational costs, which are difficult to cover with the income the company received during the pandemic. So that the net profit obtained by the company is smaller when compared to the period before the pandemic took place. Meanwhile, the total assets of the company tended to be stable so that when the two components were compared, the ROA of the hotel, restaurant, and tourism sub-sector companies decreased from before the pandemic took place, while the decline was significant. From these results, it can be seen that the Covid-19 pandemic has made a significant difference in the company's ability to generate profits. The results of this study support the results obtained by several previous studies such as research by (Sari & Setyaningsih, 2022) which examined differences in financial distress and financial performance before and during the Covid-19 pandemic in manufacturing companies with results showing a significant difference in ROA. before and during the Covid-19 pandemic. However, the results of this study are not in line with research by (Sucipto R. H., 2022) which analyzed PT Telkom's financial performance before and during the Covid-19 pandemic, this study shows that ROA did not have a significant difference between before and during the Covid-19 pandemic.

The ROE Z score is -5.098 which indicates a decrease in ROE during the Covid-19 pandemic. The decrease in ROE was due to a decrease in net profit and equity, but the percentage decrease in net profit was greater than equity. The company's net profit decreased due to reduced revenue in the hotel, restaurant, and tourism sub-sector, so when compared to total equity the results from the period during the pandemic experienced a significant decline because, in the previous period, the company's profits were better than profits during the pandemic. Based on these results, it can be interpreted that the Covid-19 pandemic has made a significant difference in the ability of the hotel, restaurant, and tourism sub-sector companies to generate returns on equity. The results of this study support the results obtained by several researchers, such as (Sari & Setyaningsih, 2022) who examined differences in financial distress and financial performance before and during the Covid-19 pandemic in manufacturing companies with results showing a significant difference in ROE before and during the Covid-19 pandemic. In addition, research by (Veronica, Afkar, & Fariana, 2022) examined the analysis of the profitability of food and beverage companies during and before Covid-19 with results showing significant differences in ROE during and before Covid-19.

The NPM Z score is -4.677 which indicates a decline in NPM during the Covid-19 pandemic. The decrease in NPM was due to a decrease in revenue accounts, while the company

continued to incur costs for operational purposes so the net profit component that could be obtained from sales also decreased. So when net profit is compared to total income during the Covid-19 pandemic, it produces a smaller NPM ratio compared to before the Covid-19 pandemic took place. So it can be interpreted that the Covid-19 pandemic has resulted in a significant difference in the ability of the hotel, restaurant, and tourism sub-sector companies to generate net profit from each sale. The results of this study support the results obtained by several researchers, such as (Sari & Setyaningsih, 2022) who examined differences in financial distress and financial performance before and during the Covid-19 pandemic in manufacturing companies with results showing that there were significant differences in NPM before and during the Covid-19 pandemic. However, according to research conducted by (Dewanti, Kusumawardani, & Akbar, 2022) concerning a comparison of financial performance before and during the Covid-19 pandemic at PT Provident Agro Tbk for the 2018-2021 period, the ratios studied were CR, DAR, NPM, and TATO, with research results that stated that there were no significant differences in the four ratios before and during the Covid-19 pandemic.

The Z-*Score* is -4.430 which can reflect an increase in company bankruptcy. There are significant differences in the potential for bankruptcy in the hotel, restaurant, and tourism sub-sector before and during the Covid-19 pandemic due to several things, starting from a decrease in total income due to Large-Scale Social Restrictions (called PSBB) which required the closure of many hotels, restaurants and tourism so that profits the company went down. In addition, many stocks experienced a decline in price during the Covid-19 pandemic. With a decrease in income and share price, the Z-Score will automatically decrease and this Z-Score decrease can be interpreted as an increase in the potential for bankruptcy in the hotel, restaurant, and tourism sub-sector companies in Indonesia. Based on research conducted on 19 companies in the hotel, restaurant, and tourism sub-sector, there is an increase in the number of companies in the distress zone or predicted to experience bankruptcy, totaling 13 companies from the previous one company. Companies in the gray zone (gray area) had the same number before and during the Covid-19 pandemic, namely 8 companies. Meanwhile, companies that are in a safe zone or have no potential for bankruptcy have decreased from 29 companies to 17 companies. With an increase in the number of companies in the distress zone, it can be said that the Covid-19 pandemic can cause several companies to experience financial distress. The results of this study support several previous studies, such as research by (Farida, et al., 2022) who conducted a different test on the potential for financial distress before and during the Covid-19 pandemic in retail companies listed on the IDX for the 2018-2021 period, the results of which show that there is a difference in before and during the Covid-19 pandemic.

Conclusions

Several conclusions were drawn as follows: (1) There were significant differences in the ROA (return on assets) of the hotel, restaurant, and tourism sub-sector companies before and during the Covid-19 pandemic; (2) There were significant differences in the ROE (return on equity) of the hotel, restaurant, and tourism sub-sector companies before and during the Covid-19 pandemic; (3) There were significant differences in the NPM (net profit margin) of the hotel, restaurant, and tourism sub-sector companies before and during the Covid-19 pandemic; and (4) There is a significant difference in the financial distress of the hotel, restaurant, and tourism sub-sector companies before and during the Covid-19 pandemic.

There is a decrease in the profitability ratio and also a significant difference in the increase in the potential for bankruptcy in the hotel, restaurant and tourism sub-sector companies, this can be a concern for company management to immediately improve the company's financial condition, find the best solution and make policies to minimize losses and improve financial performance. This can be done by encouraging a good marketing strategy so that many tourists are interested in visiting hotels, restaurants and tourism so as to increase company profitability. Then it can reduce operational costs so that spending is more effective and efficient. Investors should now be more selective if they want to invest in companies in the hotel, restaurant and tourism sub-sectors until the Covid-19 pandemic has completely stopped. Further research can develop in other sectors affected by the Covid-19 pandemic. In addition, it is hoped that future researchers will add or use other proxies in assessing bankruptcy potential, for example using the Grover, Springate, Zmijewski, and so on models.

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