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THESIS FINAL DEFENSE:

FINANCIAL PERFORMANCE ANALYSIS, EVALUATION, AND FINANCIAL HEALTHINESS OF PT GARUDA INDONESIA TBK (GIAA) BEFORE AND DURING COVID IN THE 2016-2023 PERIOD

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ABSTRACT

The COVID-19 pandemic has affected every sector in the world, particularly the economy. One sector that is closely related to tourism is the transportation sector. In Indonesia, the biggest air transport that has been affected by the pandemic is Garuda Indonesia. Garuda Indonesia flew 10.81 million passengers, down 66.11% in 2020 compared to 31.89 million passengers in 2019. This study aimed to measure and analyze PT Garuda Indonesia Tbk's (GIAA) financial performance and financial health before and during the COVID-19 pandemic. A quantitative research methodology is employed in this study, which makes use of secondary data from 28 GIAA quarterly financial statements covering the years 2016–2023. Evaluating the company's financial health based on Altman Z-Score was also carried out in 2016 – 2023. The methodology for measuring and analyzing financial performance is based on eight financial ratios and a statistical one-tailed two-dependent samples test was applied to validate significance. Key financial ratios such as ROE, Total Asset Turnover Ratio, Cash Ratio, and Debt to Equity Ratio, Total Equity to Total Asset Ratio, and Current Ratio, showed marked declines, indicating severe financial distress. While ROA and Collection Period ratios did not exhibit differences, Altman Z-Score demonstrated that Garuda's financial health was notably better before the pandemic. The Altman Z-Score, reflecting overall financial stability, also worsened during the pandemic, with a significant drops. This analysis underscores the pandemic's severe impact on Garuda Indonesia's financial stability.

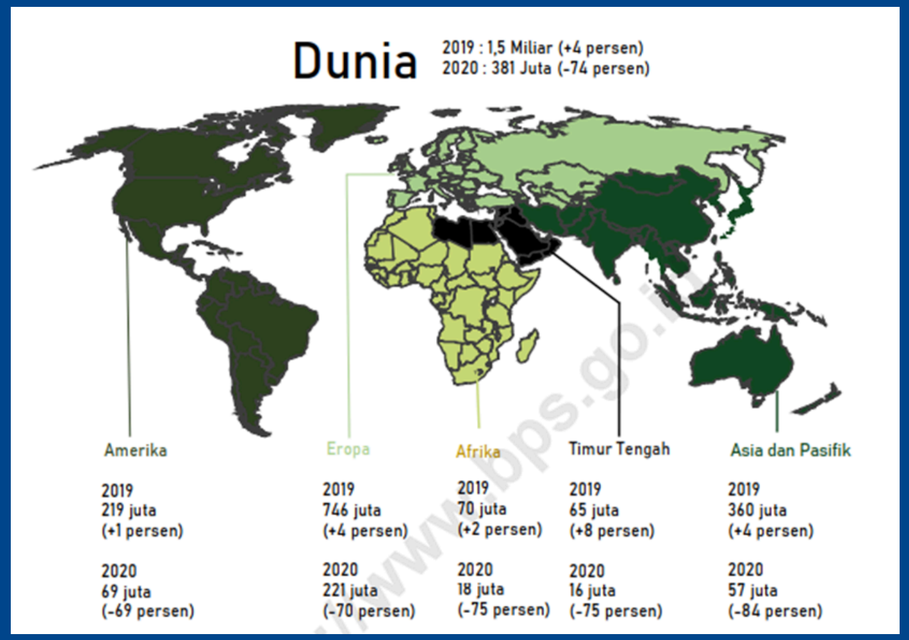
Keywords : Airline Company; Altman Z-Score, Financial Performance, COVID-19

INTRODUCTION

CHAPTER 1

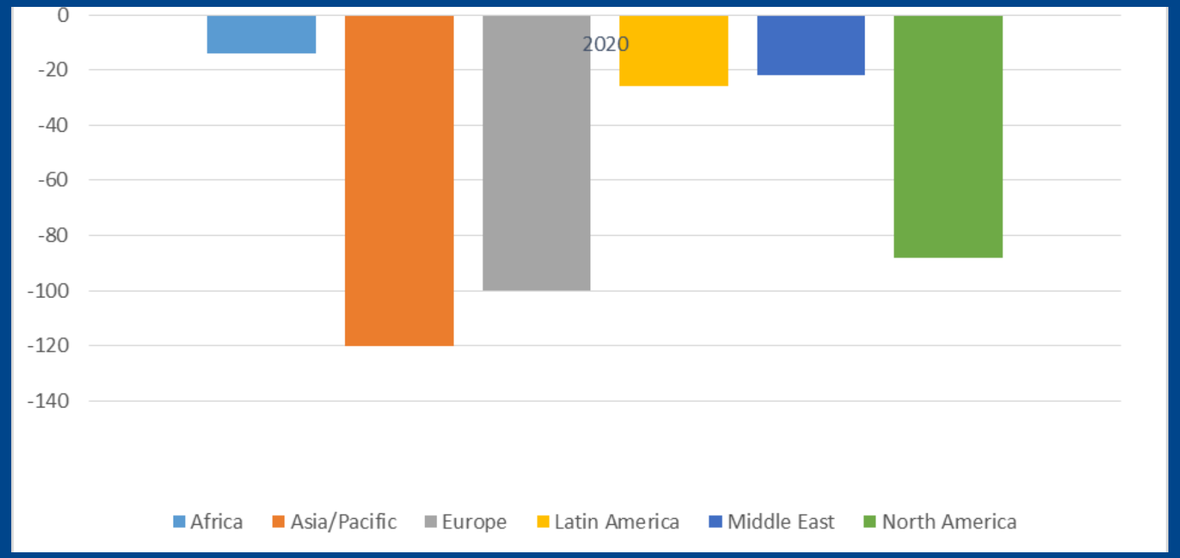
INTRODUCTION

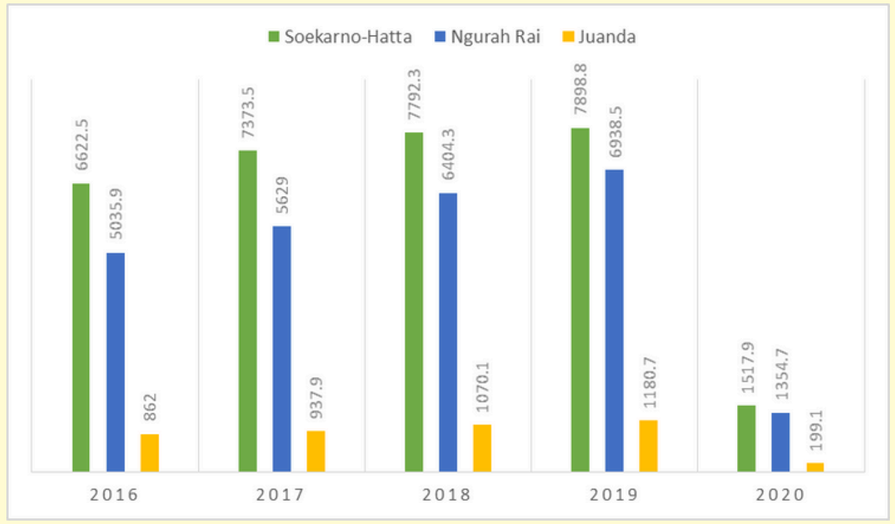
The WHO declared a global health emergency on January 30, 2020, transforming the COVID-19 epidemic into a pandemic. Significant economic effects are already evident as a result of decreased production, fatalities, company closures, disruptions to commerce, and a decline in the tourism sector. According to the UNWTO World Tourism Barometer (2021), in 2020, international tourist arrival statistics decreased by around 74 percent.



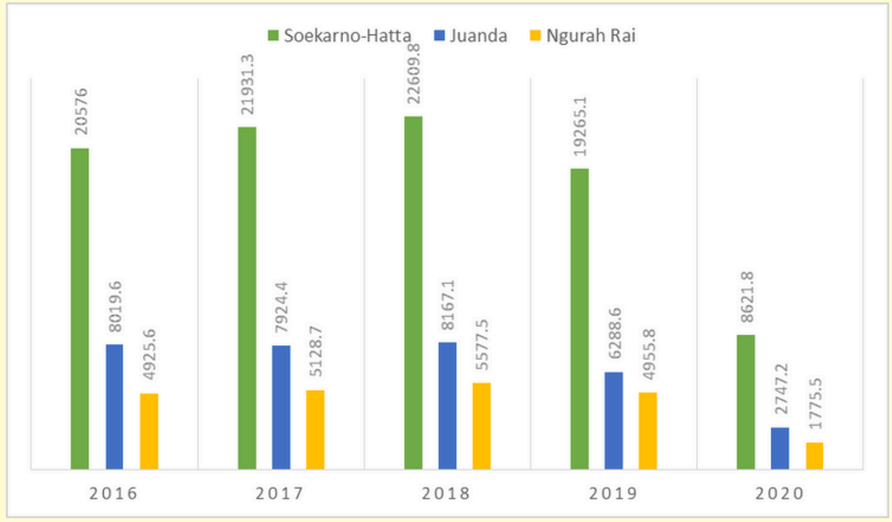
International Tourist Visits in 2019 and 2020
Source : (BPS, 2021)

One sector that is closely related to tourism is the transportation sector. Total passengers in 2020 dropped by 60 percent due to the impact of the COVID-19 pandemic, from 4.5 billion in 2019 to 2.7 billion in 2020.





Number of International Flight Air Transportation Passengers



Number of Domestic Flight Air Transportation Passengers

The decline in the number of passengers that occurred at several airports in Indonesia is related to the decline in the number of passengers using air transportation.

Year	CMPP	GIAA
2018	-907,025	-3,314,549
2019	-157,369	-619,533
2020	-2,754,590	-34,932,913
2021	-2,337,876	-23,844,160

The net profit of the two aviation sector companies experienced negative growth, in other words, the losses are getting bigger

COMPANY PROFILE

FIRST ESTHABLISHMENT — 01

Garuda Indonesia, established in 1949, is a prominent airline in Indonesia. The flag carrier, which was state-owned for over 50 years, made its public offering in 2011, where 28% of its shares were offered to the public.

SUBSIDIARIES — 02

Garuda Indonesia strategically strengthens operations through its subsidiaries, including Aerowisata, Sabre Travel Network Indonesia, GFAA, ASYST, Citilink Indonesia, Gapura Angkasa, and Garuda Indonesia Holiday France.

COVID-19 CONDITION — 03

Garuda Indonesia flew 10.81 million passengers, down 66.11% compared to 31.89 million passengers in 2019. In 2020, Garuda Indonesia earned USD1.49 billion in operating sales, a 67.36% decline from USD4.57 billion in 2019

RESEARCH PROBLEM

The aviation industry had a huge influence by COVID-19 pandemic, including company like PT Garuda Indonesia Tbk (GIAA). The company is confronted with unprecedented challenges and uncertainties, necessitating the ability to maintain success in turbulent times. It is critical to assess, analyze, and evaluate their financial performance and overall health in order to reduce risks and assure market sustainability. Shareholders, stakeholders, and investors must be informed about how the pandemic would affect Garuda Indonesia's financial performance and health.

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RESEARCH QUESTIONS AND OBJECTIVES

Research Questions

1. How was the financial performance condition of Garuda Indonesia before and during the COVID-19 pandemic in terms of profitability, liquidity, solvency, and activity ratio?
2. Are there any significant differences in the financial performance measures of Garuda Indonesia before and during the COVID-19 pandemic, especially in terms of profitability, liquidity, solvency, and activity ratio?
3. How was the financial healthiness of the company before and during the COVID-19 pandemic?
4. Are there any significant differences in the financial healthiness measures of Garuda Indonesia before and during the COVID-19 pandemic?

Research Objectives

1. To analyze and evaluate the financial performance condition of Garuda Indonesia before and during COVID-19.
2. To identify and analyze any significant differences in Garuda Indonesia’s financial performance measures before and during the COVID-19 pandemic.
3. To assess Garuda Indonesia's financial health before and during the COVID-19 pandemic.
4. To identify and analyze any significant differences in Garuda Indonesia’s financial healthiness measures before and during the COVID-19 pandemic.

Scope and Limitations

Scope of The Study

This research analyzes GIAA's financial health using Altman Z-Score and financial ratios, focusing on profitability, liquidity, activity, and solvency, to assess the company's financial performance quarterly from 2016-2023. The approach will be utilized to evaluate GIAA's financial stability and bankruptcy risk from 2016 to 2023.

Limitations of The Study

The study on Garuda Indonesia (GIAA) in the aviation sector has limitations, including its focus on specific organizations, limited analysis to 2016-2023, and reliance on COVID-19 pandemic data. The financial ratio measurements may overlook other critical indicators. The study's financial healthiness data is limited to the last eight years, spanning 2016-2023, limiting insights into long-term trends or cyclical patterns in the aviation sector.

LIST OF PREVIOUS RESEARCH

Author	Title	Method
Rachmawati, D & Maulana, A.D (2023)	Financial distress condition of Indonesian aviation sector companies before and during the Covid-19 pandemic	A two-way ANOVA test was performed on the data using Minitab 20 software.
Handayani, D. P (2022)	Comparison of Company's Financial Performance Before and During The Covid-19 Pandemic for Land and Air Transportation Service Companies in IDX	The data analysis utilized descriptive statistics, a Kolmogorov-Smirnov test for normality, a paired sample t-test for difference, and a Wilcoxon Signed Rank for non-normal distribution.
Aman, Q & Altass, S (2021)	Pre-and Post-COVID-19 condition, performance and future of the airline industry: Evidence from accounting data	The framework predicts normalization of aviation industry capacity during COVID-19 recovery by analyzing ratios, financial evaluations, operational profit margins, net profit margins, ROIC, revenue trends, aircraft fleet, and tax contributions.
Daryanto, W.M, Rizki, M. I, & Mahardhika (2021)	Financial Performance Analysis Of Construction Company Before And During Covid-19 Pandemic In Indonesia	The study analyzes a company's financial performance before and during the COVID-19 pandemic using Altman Z-Score
Wulaningsih, D.U & Daryanto, W.M (2023)	Financial Distress Analysis for Garuda Indonesia Uses the Altman Z-Score Method in the 2018-2022 Period	The Altman Z-Score model is used to analyze a company's bankruptcy tendency using financial ratios from Garuda Indonesia reports.

Novelty

The novelty of this study lies in its detailed examination of financial parameters such as liquidity, solvency, activity, and profitability. By focusing on these critical factors and employing the Altman Z-Score method for financial health evaluation, this study provides a new methodology for assessing Garuda Indonesia's (GIAA) financial performance and stability. Additionally, this study introduces the use of the t-test to statistically in financial performance and Altman Z-Score before and during COVID-19 using quarterly data, further enhancing the robustness and validity of the findings.

Research Benefit

Theoritical Benefits

The research enhances financial theories by examining airline financial health and challenges. It supports airline-specific financial models using tools like the Altman Z-Score, making them more reliable for decision-making and risk management in the airline industry.

Practical Benefits

The data helps GIAA make informed decisions about investment plans, operational improvements, and regulatory compliance, enabling effective risk management by identifying financial strengths and weaknesses.

LITERATURE REVIEW

CHAPTER 2

Profitability Ratio	**ROE & ROA**
Liquidity Ratio	**Current Ratio and Cash Ratio**
Solvency Ratio	**Debt to equity ratio and Total Asset to Total Equity Ratio**
Activity Ratio	**Total Assets Turnover and Collection Period**

Financial Ratio Analysis

Definition

Ratio analysis analyzes and monitors a company's performance by calculating and understanding its financial ratios. Financial ratios are used to assess a company's financial health and performance. Financial statements are the primary source of data used for calculating a company's financial ratios (Ross N. L., 2021).

Financial Ratio Analysis

Profitability Ratio

$$\text{ROE} = \frac{\text{Income after tax}}{\text{Shareholder's Equity}} \times 100\%$$

$$\text{ROA} = \frac{\text{Net Income}}{\text{Total Assets}} \times 100\%$$

Activity Ratio

$$\text{Total Asset Turnover} = \frac{\text{Net Sales}}{\text{Capital Employed}} \times 100\%$$

$$\text{Collection Periods} = \frac{\text{Account Receivables}}{\text{Sales}} \times 365$$

Solvency Ratio

$$\text{Debt to Equity Ratio} = \frac{\text{Total Liabilities}}{\text{Shareholders' Equity}} \times 100\%$$

$$\text{Total Equity to Total Assets Ratio} = \frac{\text{Total Equity}}{\text{Total Assets}} \times 100\%$$

Liquidity Ratio

$$\text{Current Ratio} = \frac{\text{Current Assets}}{\text{Current Liabilities}} \times 100\%$$

$$\text{Cash Ratio} = \frac{\text{Cash+cash equivalents}}{\text{Current Liabilities}} \times 100\%$$

Source : (Daryanto, Maharani, & Wiradjaja, 2021)

Source : (Daryanto, 2018)

FINANCIAL HEALTHINESS

$$Z = 1.2X_1 + 1.4X_2 + 3.3X_3 + 0.6X_4 + 1.0X_5$$

X_1 = Working Capital/Total Assets

X_2 = Retained Earnings/Total Assets

X_3 = Earnings before Interest and Taxes/Total Assets

X_4 = Market Value of Equity/Book Value of Total Liabilities

X_5 = Sales/Total Assets

Z = Overall Index/Score

Altman Z-Score Formula for non - manufacture company

Z-Score = 6.56X1 + 3.26X2 + 6.72X3 + 1.05X4

A score between 1.23 and 2.9 indicates a company's financial performance is in the grey zone, while a score below 1.23 indicates distress.

Z-Score is one of the multivariate analysis models first created and introduced by Edward Altman based on his research in 1968, which serves to assess and determine the tendency of corporate bankruptcy and can also be used as a measure of overall financial performance and a relatively reliable level of accuracy (Fau, 2021).

DETERMINE A STATISTICAL TEST

STEPS IN A STATISTICAL TEST

- Statement of the question to be answered by the study
- Formulation of the null and alternative hypotheses
- Decision for a suitable statistical test
- Specification of the level of significance (for example, 0.05)
- Performance of the statistical test analysis: calculation of the p-value
- Statistical decision: for example
  - $p<0.05$ leads to rejection of the null hypothesis and acceptance of the alternative hypothesis
  - $p\geq0.05$ leads to retention of the null hypothesis
- Interpretation of the test result

(Prel, et al., 2010)

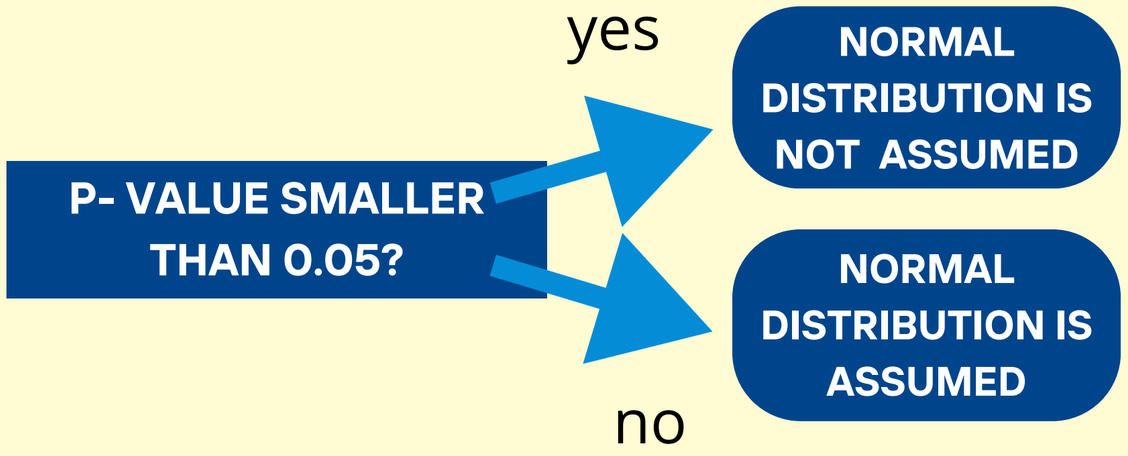
- ONE-TAILED TEST is only performed when there is a clear evidence that the intervention should only act in one direction.
- TWO-TAILED TEST is used to detect differences in either of two direction and is most appropriate when the two treatment are roughly equivalent.

TEST OF NORMALITY DISTRIBUTION

Some test of normality distribution:

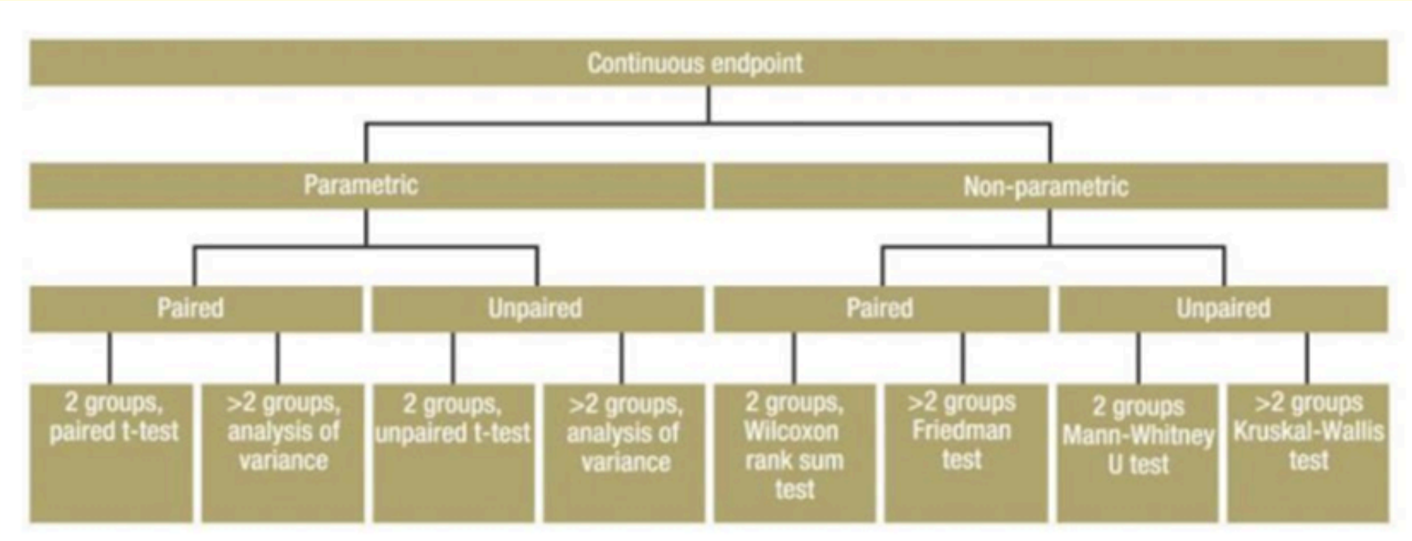
- ANALYTICAL : SHAPIRO-WILK TEST, ANDERSON-DARLING TEST, HENZE-ZIRKLER TEST, AND DOORNIK-HANSEN TEST
- GRAPHICAL : HISTOGRAM, QQ PLOT, SKEWNESS TEST, KURTOSIS TEST

The Shapiro-Wilk test determines whether a random sample is representative of a normal distribution by calculating the W and W' statistics, respectively. W or W' values that are minimal imply a deviation from normality. It is only possible to compute the Shapiro-Wilk W statistic with a sample size of 3–5000 (inclusive) (Razali & Wah, 2011)



Determinant a Statistical Test

Decision algorithm for statistical test

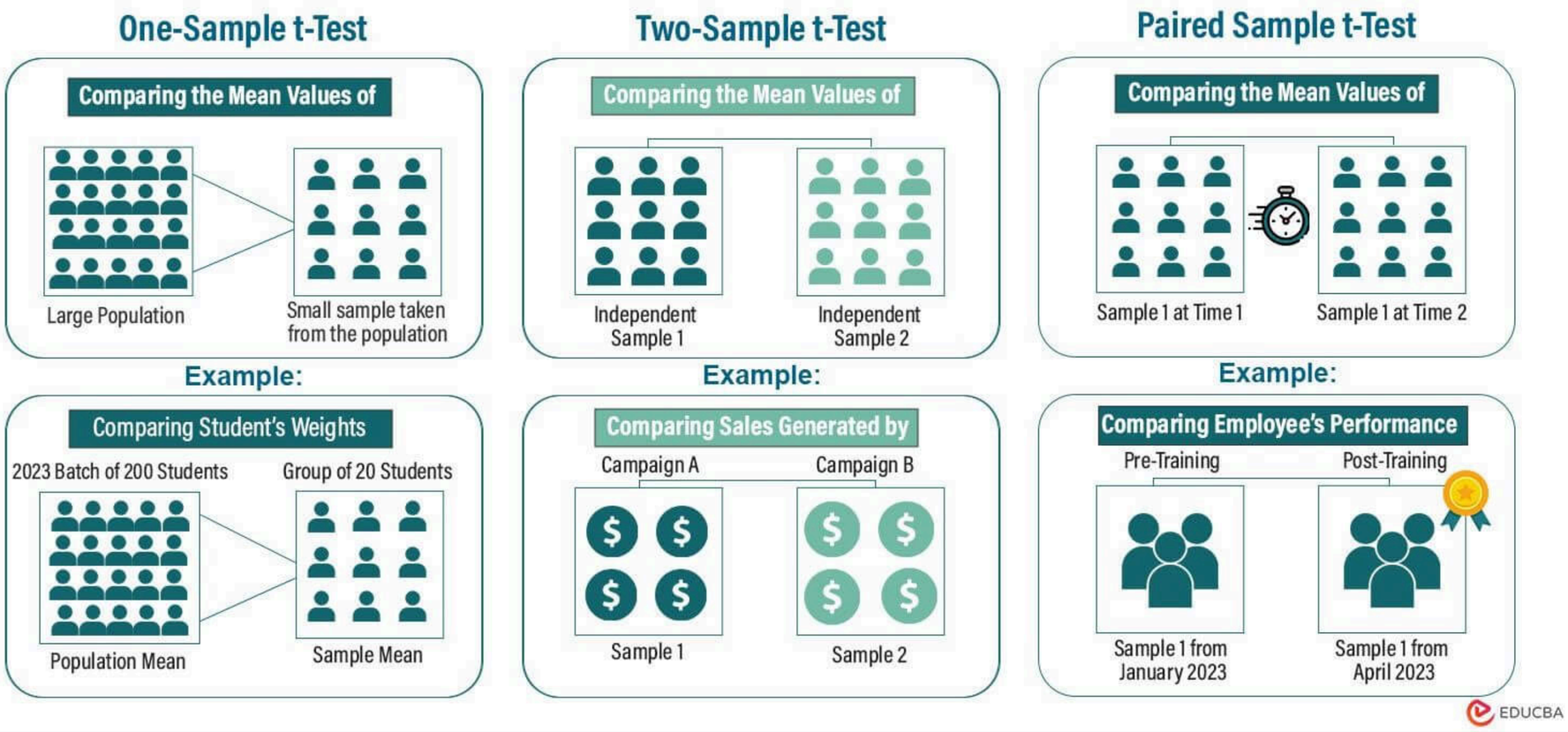


Source : (Prel, et al., 2010)

A paired sample is a type of statistical sample where the observations in one sample are related to or matched with observations in another sample.

An unpaired sample, consists of observations that are randomly and independently selected from two or more distinct groups.

T-TEST



The T-test is one of the most popular statistical techniques used to test whether the mean difference between two groups is statistically significant. There are three different kinds of t-tests: paired samples, independent samples, and one sample (Mishra, et al., 2019).

FORMULA FOR T-TEST

The general formula for the t-statistic is as follows :

$$t = \frac{difference\ of\ means}{standard\ error}$$

(MISHRA, ET AL., 2019).

One sample t-Test

Mean of the sample — Reference value

$$t = \frac{\bar{x} - \mu}{\frac{s}{\sqrt{n}}}$$

Standard deviation

Number of cases

Independent samples t-Test

Mean sample 1 — Mean sample 2

$$t = \frac{\bar{x}_1 - \bar{x}_2}{\sqrt{\frac{s_1^2}{n_1} + \frac{s_2^2}{n_2}}}$$

Standard deviation Sample 1 and 2

Number of cases Sample 1 and 2

Paired samples t-Test

Mean of the difference

$$t = \frac{\overline{x_d} - 0}{\frac{s}{\sqrt{n}}}$$

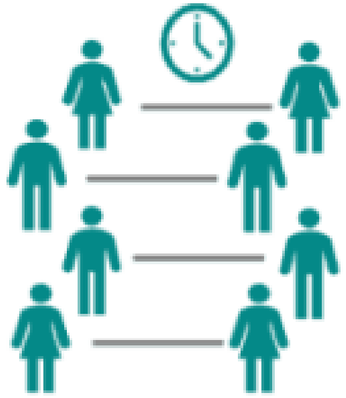
Standard deviation

Number of cases

The Wilcoxon Test

Definition

The Wilcoxon Matched-Pairs Signed Ranks Test is often used with ordinal data and/or data that are viewed as being nonparametric (with attention to medians) whereas the Student's paired t-Test is generally used with interval data that rise to the level of parametric distributions (with attention to means).

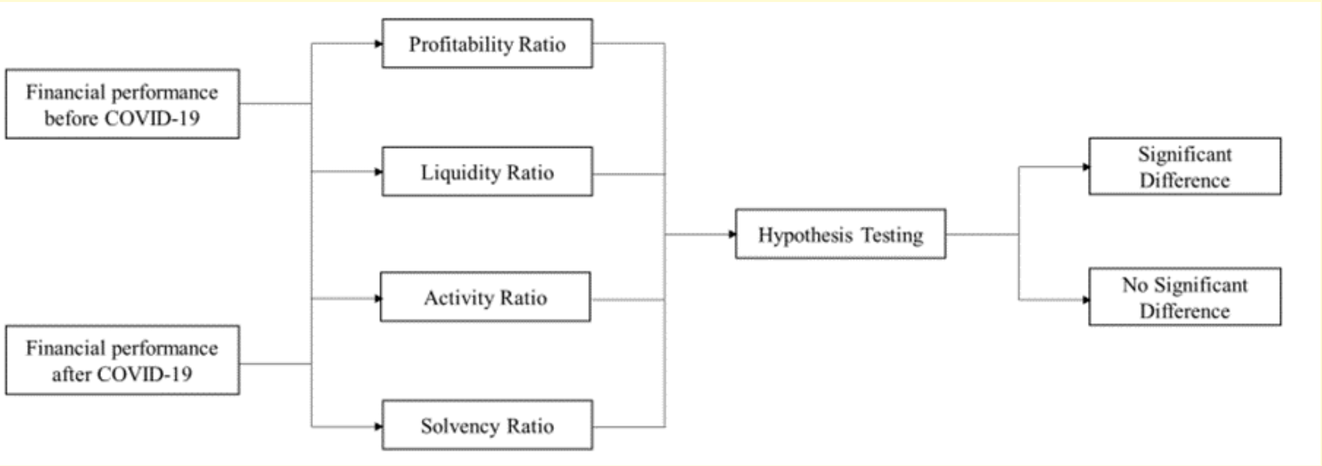


(MACFARLAND AND YATES, 2016).

The Wilcoxon test is a non-parametric test and is therefore subject to considerably fewer assumptions than its parametric counterpart, the t-test for dependent samples.

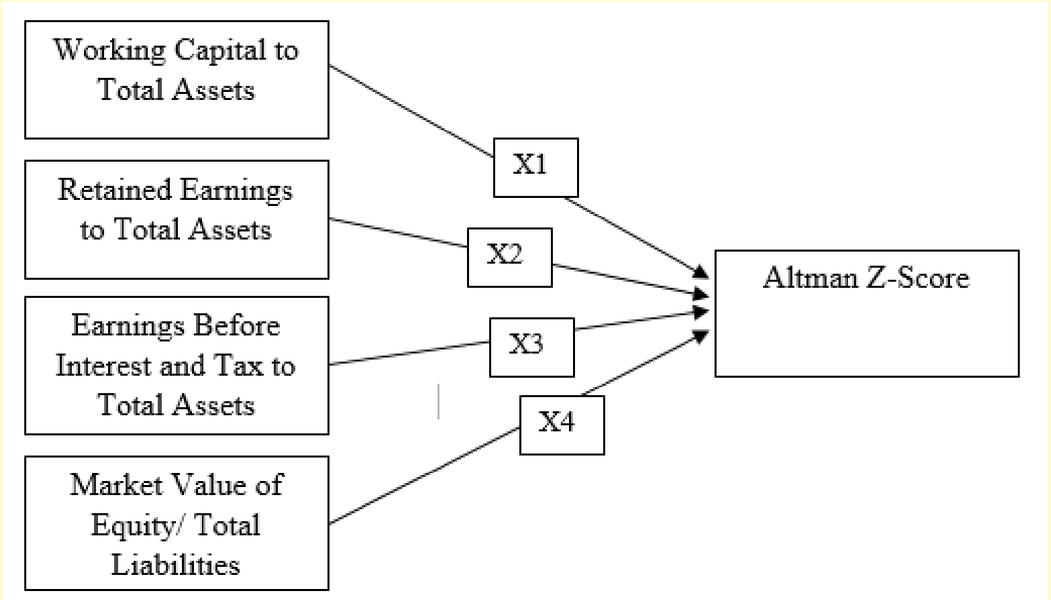
Research Framework

Build the framework



RESEARCH MODEL FOR FINANCIAL PERFORMANCE

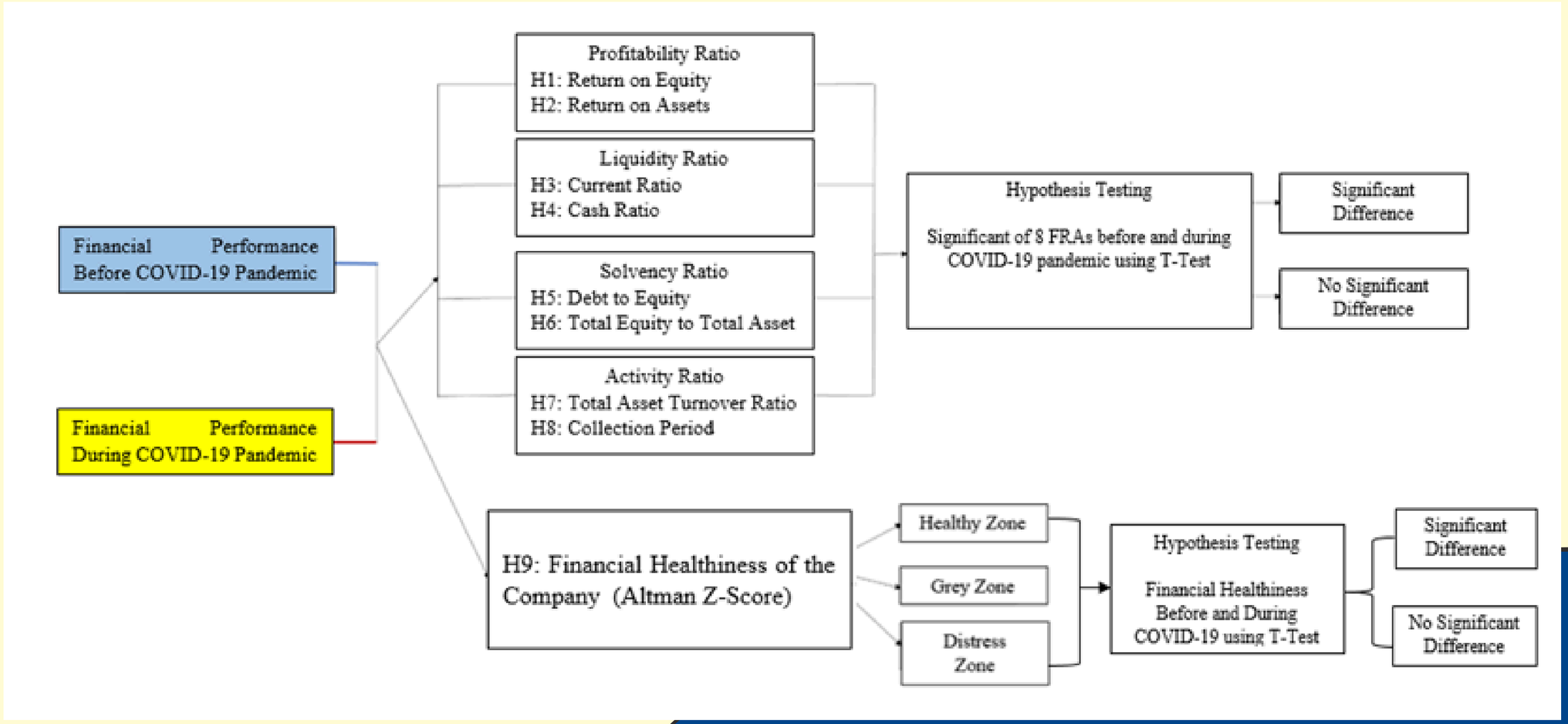
Source: (Daryanto & Meriana, 2019)

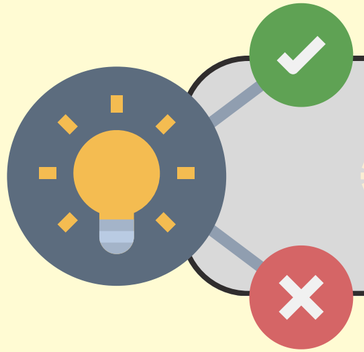


ALTMAN Z-SCORE RESEARCH FRAMEWORK

Source: (Altman, et al., 2017)

Research Framework





Theoritical Hypothesis

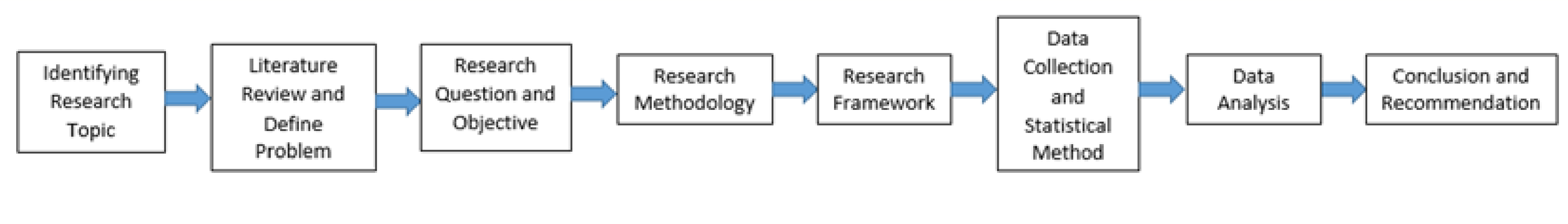
H1: Return on Equity in Profitability Ratio before COVID-19 is better than during the COVID-19 pandemic.
H2: Return on Assets in Profitability Ratio before COVID-19 is better than during the COVID-19 pandemic.
H3: The current Ratio in Liquidity Ratio before COVID-19 is better than during the COVID-19 pandemic.
H4: Cash Ratio in Liquidity Ratio before COVID-19 is better than during the COVID-19 pandemic.
H5: Debt to Equity Ratio in Solvency Ratio before COVID-19 is better than during the COVID-19 pandemic.
H6: Total Equity to Total Assets Ratio in Solvency Ratio before COVID-19 is better than during the COVID-19 pandemic.
H7: Total Assets Turnover Ratio in Activity Ratio before COVID-19 is better than during the COVID-19 pandemic.
H8: Collection Period in Activity Ratio before COVID-19 is better than during the COVID-19 pandemic.
H9: The financial health of Garuda Indonesia before COVID-19 is better than during the COVID-19 pandemic.

RESEARCH METHODOLOGY

CHAPTER 3

Research Design

The financial performance of Garuda Indonesia both before and during the COVID-19 pandemic will be examined in this quantitative analysis. Financial ratios will make use of eight indicators that are based on Gitman and Zutter (2015) and the Altman Z-score, which measures the company's financial health.



Data Collection

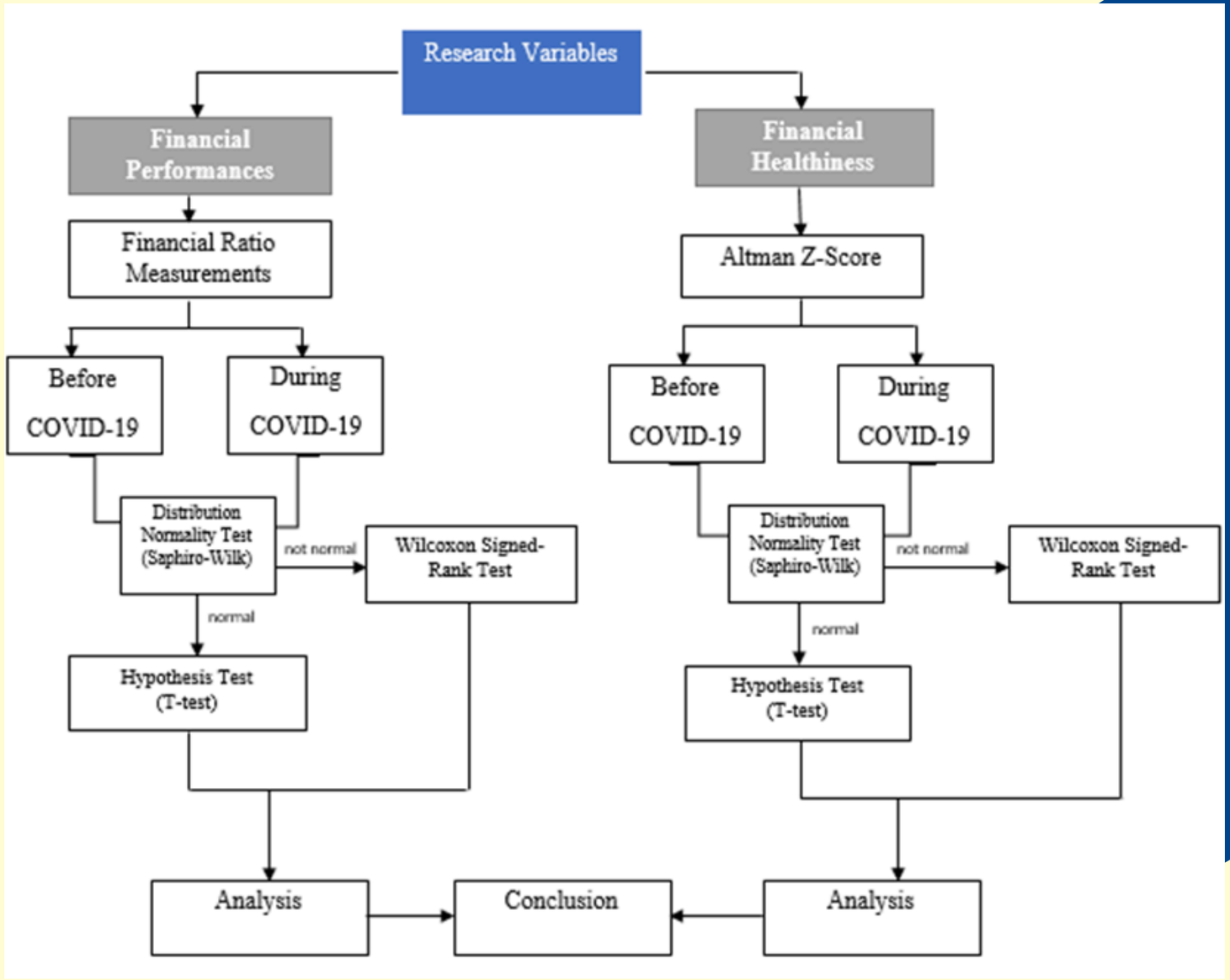
The secondary data used in this study came from Garuda Indonesia's audited financial statements that were posted on the Indonesia Stock Exchange (IDX) and the company's official website. The resource can be accessed resources at https://web.garuda-indonesia.com/ and www.idx.co.id.

FINANCIAL STATEMENTS FOR FINANCIAL PERFORMANCE							
2016	2017	2018	2019	2020	2021	2022	2023
	Q1	Q1	Q1	Q1	Q1	Q1	Q1
	Q2	Q2	Q2	Q2	Q2	Q2	Q2
Q3	Q3	Q3	Q3	Q3	Q3	Q3	Q3
Q4	Q4	Q4	Q4	Q4	Q4	Q4	

Before COVID-19 Pandemic
Cut-Off (COVID-19 Pandemic)
During COVID-19 Pandemic

ALTMAN Z-SCORE ANALYSIS							
2016	2017	2018	2019	2020	2021	2022	2023
	Q1	Q1	Q1	Q1	Q1	Q1	Q1
Q2	Q2	Q2	Q2	Q2	Q2	Q2	Q2
Q3	Q3	Q3	Q3	Q3	Q3	Q3	Q3
Q4	Q4	Q4	Q4	Q4	Q4	Q4	Q4

Research Procedures

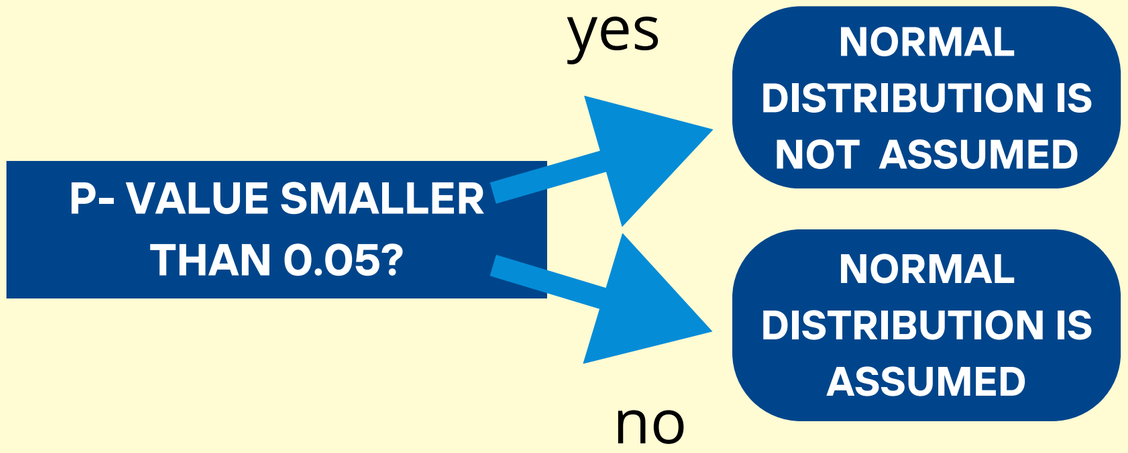


DISTRIBUTION NORMALITY TEST

The author made the computation easier by using SPSS software. Criteria to interpret the assessment result Shapiro-Wilk test; Referred to the hypothesis below (α = 0.05):

H0 = data are normally distributed.
Ha = data are not normally distributed.

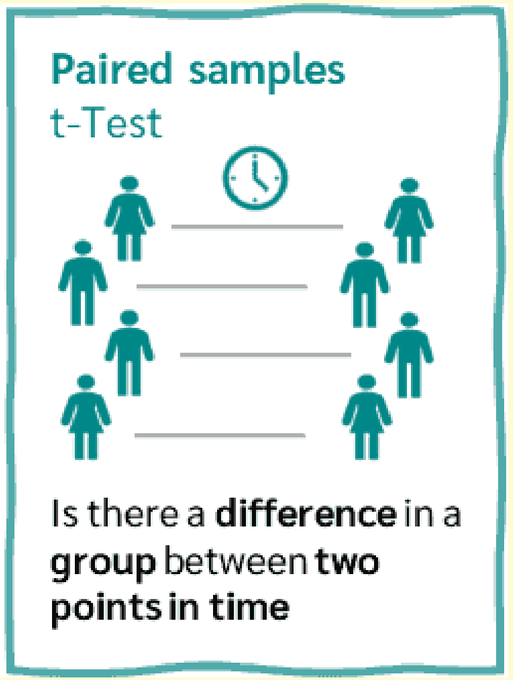
If the p-value is less than 0.05, then H0 is rejected, indicating that the samples are not normally distributed.



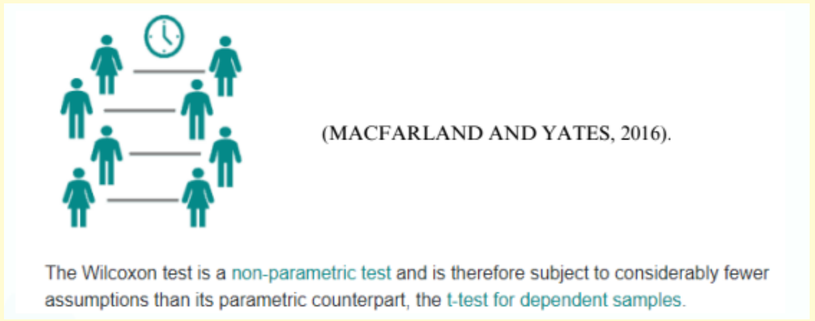
Hyphothesis Test

T-TEST/ Wilcoxon Signed Rank Test

H0 = δ ≤ 0, or μ2 ≤. μ1
Ha = δ > 0, or μ2 >μ1



Criteria that will be used to measure the hypothesis of this study:
·If p < 0.05, H0 is rejected, which means financial ratios during COVID-19 before the pandemic were better than during the pandemic.
·If p > 0.05, H0 is accepted, which means financial ratios before COVID-19 pandemic were worse than or equal to during the pandemic.



RESULT & DISCUSSION

CHAPTER 4

Financial Ratio Analysis

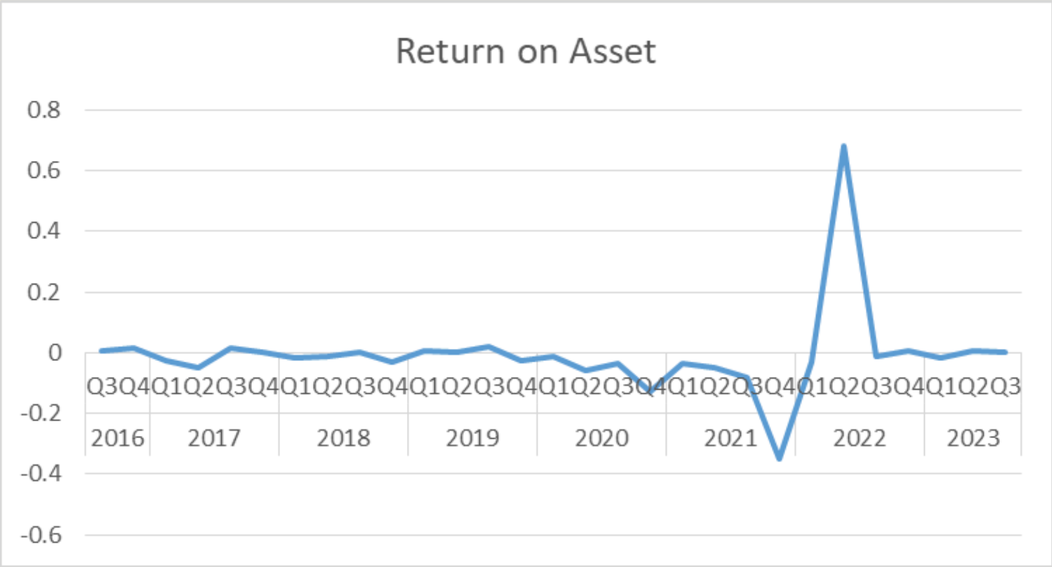
Profitability and Activity Ratio Analysis

PROFITABILITY RATIO						ACTIVITY RATIO					
Return on Equity			Return on Asset			Total Asset Turnover			Collection Period		
Before COVID - 19						Before COVID - 19					
	Q3	0.021		Q3	0.005		Q3	0.506		Q3	16.359
2016	Q4	0.052	2016	Q4	0.014	2016	Q4	0.459	2016	Q4	17.237
	Q1	-0.108		Q1	-0.025		Q1	0.436		Q1	22.178
	Q2	-0.257		Q2	-0.049		Q2	0.375		Q2	25.004
	Q3	0.077		Q3	0.017		Q3	0.708		Q3	18.960
2017	Q4	0.009	2017	Q4	0.002	2017	Q4	0.579	2017	Q4	19.361
	Q1	-0.074		Q1	-0.016		Q1	0.559		Q1	27.712
	Q2	-0.061		Q2	-0.012		Q2	0.595		Q2	26.559
	Q3	0.005		Q3	0.001		Q3	0.669		Q3	24.760
2018	Q4	-0.163	2018	Q4	-0.028	2018	Q4	1.015	2018	Q4	23.220
	Q1	0.025		Q1	0.005		Q1	0.590		Q1	39.241
	Q2	0.005		Q2	0.001		Q2	0.782		Q2	43.512
	Q3	0.109		Q3	0.022		Q3	0.872		Q3	29.104
2019	Q4	-0.161	2019	Q4	-0.026	2019	Q4	0.862	2019	Q4	21.786
2020 Q1 (Cut off Point) : -0.2466			2020 Q1 (Cut off Point) : -0.0135			2020 Q1 (Cut off Point) : 0.1405			2020 Q1 (Cut off Point) : 18.3036		
	Q2	-0.247		Q2	-0.058		Q2	0.025		Q2	102.182
	Q3	0.749		Q3	-0.037		Q3	0.043		Q3	67.719
2020	Q4	0.809	2020	Q4	-0.128	2020	Q4	0.054	2020	Q4	28.232
	Q1	0.713		Q1	-0.036		Q1	0.059		Q1	25.745
	Q2	0.166		Q2	-0.051		Q2	0.068		Q2	26.082
	Q3	0.181		Q3	-0.081		Q3	0.059		Q3	42.688
2021	Q4	0.212	2021	Q4	-0.349	2021	Q4	0.280	2021	Q4	21.442
	Q1	0.410		Q1	-0.032		Q1	0.376		Q1	26.709
	Q2	0.035		Q2	0.680		Q2	0.143		Q2	15.223
	Q3	-1.694		Q3	-0.010		Q3	0.172		Q3	14.380
2022	Q4	0.026	2022	Q4	0.006	2022	Q4	0.131	2022	Q4	15.579
	Q1	-0.026		Q1	-0.018		Q1	0.136		Q1	20.092
	Q2	0.067		Q2	0.005		Q2	0.172		Q2	18.565
2023	Q3	-0.021	2023	Q3	0.001	2023	Q3	0.182	2023	Q3	8.372

Solvency and Liquidity Ratio Analysis

SOLVENCY RATIO						LIQUIDTY RATIO					
Debt to Equity Ratio			Total Equity to Total Asset Ratio			Current Ratio			Cash Ratio		
Before COVID - 19						Before COVID - 19					
	Q3	2.812		Q3	0.262		Q3	0.777		Q3	0.331
2016	Q4	2.701	2016	Q4	0.270	2016	Q4	0.745	2016	Q4	0.370
	Q1	3.255		Q1	0.235		Q1	0.651		Q1	0.305
	Q2	4.256		Q2	0.190		Q2	0.557		Q2	0.201
	Q3	3.637		Q3	0.216		Q3	0.539		Q3	0.194
2017	Q4	3.014	2017	Q4	0.249	2017	Q4	0.513	2017	Q4	0.160
	Q1	3.544		Q1	0.220		Q1	0.495		Q1	0.139
	Q2	3.901		Q2	0.204		Q2	0.454		Q2	0.131
	Q3	4.084		Q3	0.197		Q3	0.472		Q3	0.269
2018	Q4	5.495	2018	Q4	0.154	2018	Q4	0.353	2018	Q4	0.083
	Q1	4.472		Q1	0.183		Q1	0.508		Q1	0.137
	Q2	4.415		Q2	0.185		Q2	0.428		Q2	0.108
	Q3	3.848		Q3	0.206		Q3	0.447		Q3	0.120
2019	Q4	5.183	2019	Q4	0.162	2019	Q4	0.348	2019	Q4	0.092
2020 Q1 (Cut off Point) : 17.2612			2020 Q1 (Cut off Point) : 0.0548			2020 Q1 (Cut off Point) : 0.2101			2020 Q1 (Cut off Point) : 0.0444		
	Q2	-12.947		Q2	-0.008		Q2	0.163		Q2	0.038
	Q3	-22.743		Q3	-0.046		Q3	0.152		Q3	0.036
2020	Q4	-6.553	2020	Q4	-0.180	2020	Q4	0.125	2020	Q4	0.047
	Q1	-5.556		Q1	-0.220		Q1	0.107		Q1	0.037
	Q2	-4.551		Q2	-0.282		Q2	0.080		Q2	0.016
	Q3	-3.613		Q3	-0.383		Q3	0.069		Q3	0.008
2021	Q4	-2.177	2021	Q4	-0.850	2021	Q4	0.053	2021	Q4	0.009
	Q1	-2.113		Q1	-0.899		Q1	0.065		Q1	0.014
	Q2	-3.493		Q2	-0.401		Q2	0.180		Q2	0.060
	Q3	-3.440		Q3	-0.410		Q3	0.207		Q3	0.075
2022	Q4	-5.062	2022	Q4	-0.246	2022	Q4	0.477	2022	Q4	0.310
	Q1	-4.765		Q1	-0.266		Q1	0.453		Q1	0.245
	Q2	-4.902		Q2	-0.256		Q2	0.501		Q2	0.258
2023	Q3	-4.822	2023	Q3	-0.262	2023	Q3	0.534	2023	Q3	0.227

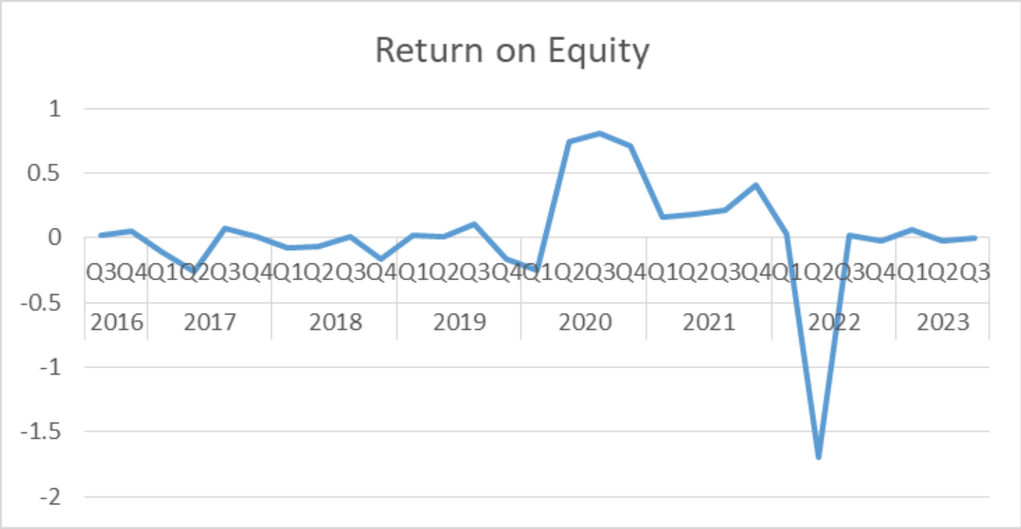
RETURN ON ASSET PROFITABILITY RATIO



Garuda Indonesia's ROA fluctuated from Q3 2016 to Q3 2023, reflecting changes in profitability relative to asset use. A notable ROA increase occurred in Q2 2022, driven by revenue growth to $2.1 billion, up from previous years. However, ROA sharply declined in 2021 due to reduced operational capacity and passenger traffic, indicating ineffective asset utilization. The negative ROA suggests challenges in asset management and increased operational costs (GIA, 2023; Lestari & Fitranita, 2024).

Return on Asset					
Before COVID - 19			During COVID-19		
2016	Q3	0.005	2020	Q1	-0.014
	Q4	0.014		Q2	-0.058
2017	Q1	-0.025		Q3	-0.037
	Q2	-0.049		Q4	-0.128
	Q3	0.017	2021	Q1	-0.036
	Q4	0.002		Q2	-0.051
2018	Q1	-0.016		Q3	-0.081
	Q2	-0.012		Q4	-0.349
	Q3	0.001	2022	Q1	-0.032
	Q4	-0.028		Q2	0.680
2019	Q1	0.005		Q3	-0.010
	Q2	0.001		Q4	0.006
	Q3	0.022	2023	Q1	-0.018
	Q4	-0.026		Q2	0.005
				Q3	0.001
Average		-0.006	Average		-0.008

RETURN ON EQUITY PROFITABILITY RATIO



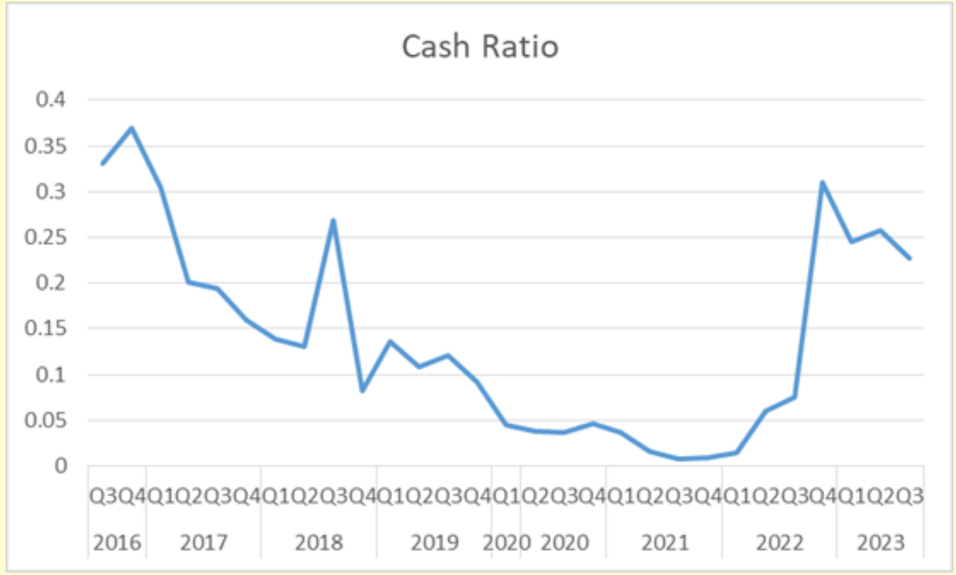
Garuda Indonesia's ROE fluctuating between positive and negative values, reflecting unstable financial performance. The ROE worsened from a negative start through Q2 2017, saw a slight recovery in Q3 2018, but then declined sharply in Q1, Q2, and Q3 2022. The airline faced increased debt and interest expenses during the crisis, impacting profitability. Despite a stabilization near zero in Q3 2023 and significant revenue growth, the overall trend remains inconsistent (Triandi & Christine, 2022; GIAA, 2023).

Return on Equity					
Before COVID - 19			During COVID-19		
2016	Q3	0.021	2020	Q1	-0.247
	Q4	0.052		Q2	0.749
2017	Q1	-0.108		Q3	0.809
	Q2	-0.257		Q4	0.713
	Q3	0.077	2021	Q1	0.166
	Q4	0.009		Q2	0.181
2018	Q1	-0.074		Q3	0.212
	Q2	-0.061		Q4	0.410
	Q3	0.005	2022	Q1	0.035
	Q4	-0.163		Q2	-1.694
2019	Q1	0.025		Q3	0.026
	Q2	0.005		Q4	-0.026
	Q3	0.109	2023	Q1	0.067
	Q4	-0.161		Q2	-0.021
				Q3	-0.003
Average		-0.037	Average		0.116

CASH RATIO

LIQUIDITY RATIO

Cash Ratio					
Before COVID - 19			During COVID-19		
2016	Q3	0.331	2020	Q1	0.044
	Q4	0.370		Q2	0.038
2017	Q1	0.305		Q3	0.036
	Q2	0.201		Q4	0.047
	Q3	0.194	2021	Q1	0.037
	Q4	0.160		Q2	0.016
2018	Q1	0.139		Q3	0.008
	Q2	0.131		Q4	0.009
	Q3	0.269	2022	Q1	0.014
	Q4	0.083		Q2	0.060
2019	Q1	0.137		Q3	0.075
	Q2	0.108		Q4	0.310
	Q3	0.120	2023	Q1	0.245
	Q4	0.092		Q2	0.258
				Q3	0.227
Average		0.189	Average		0.099

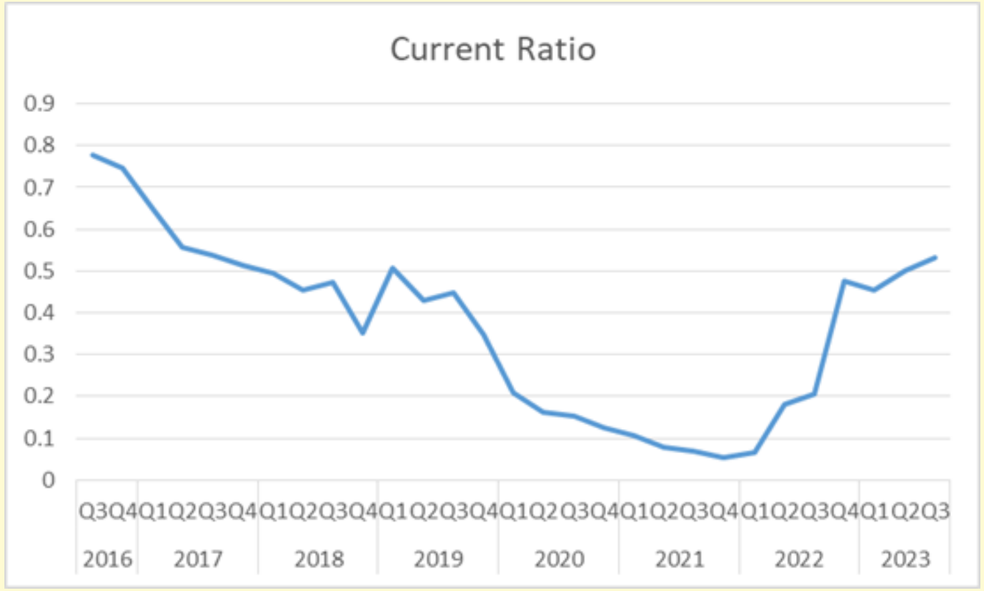


Garuda Indonesia's Cash Ratio fell from Q1 2017 to Q4 2019, influenced by rising fuel prices (Admininaca, 2020). After Q3 2020, the ratio fluctuated but stabilized by Q3 2023. The average ratio was 19% before the pandemic and 9.9% during COVID-19

CURRENT RATIO

LIQUIDITY RATIO

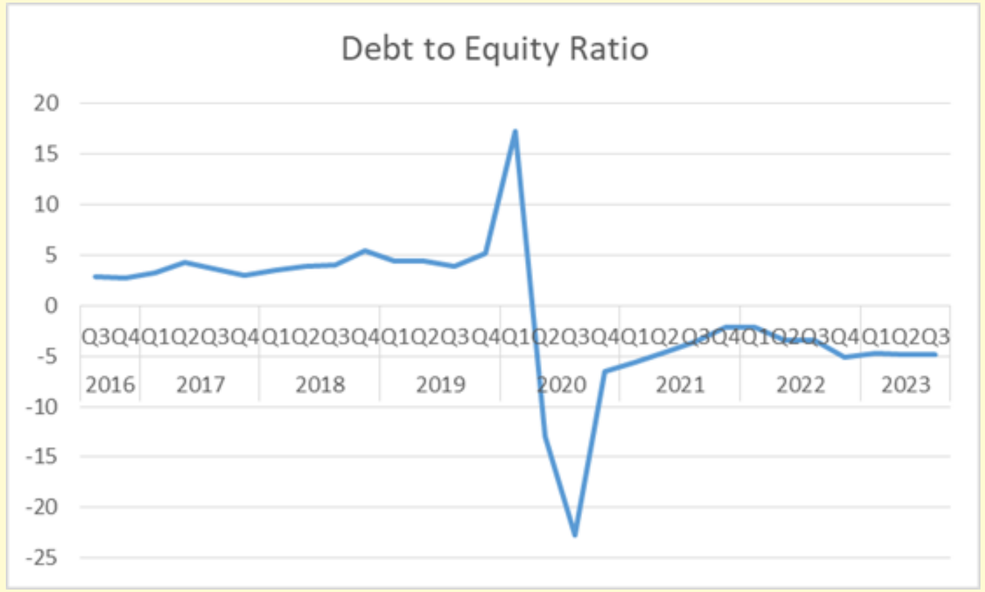
Current Ratio					
Before COVID - 19			During COVID-19		
2016.00	Q3	0.78	2020.00	Q1	0.21
	Q4	0.75		Q2	0.16
2017.00	Q1	0.65		Q3	0.15
	Q2	0.56		Q4	0.12
	Q3	0.54	2021.00	Q1	0.11
	Q4	0.51		Q2	0.08
2018.00	Q1	0.50		Q3	0.07
	Q2	0.45		Q4	0.05
	Q3	0.47	2022.00	Q1	0.07
	Q4	0.35		Q2	0.18
2019.00	Q1	0.51		Q3	0.21
	Q2	0.43		Q4	0.48
	Q3	0.45	2023.00	Q1	0.45
	Q4	0.35		Q2	0.50
				Q3	0.53
Average		0.52	Average		0.23



Garuda Indonesia's current ratio, which measures liquidity, declined from Q3 2016 to Q3 2023 due to rising current liabilities, hitting a low around Q4 2019. During the pandemic, the average current ratio fell from 52% to 23%, signaling a substantial decrease in liquidity and increased financial risk. The current ratio began to stabilize in Q1 2023, but the sharp decline during the pandemic underscores significant challenges in managing short-term obligations.

DEBT TO EQUITY RATIO

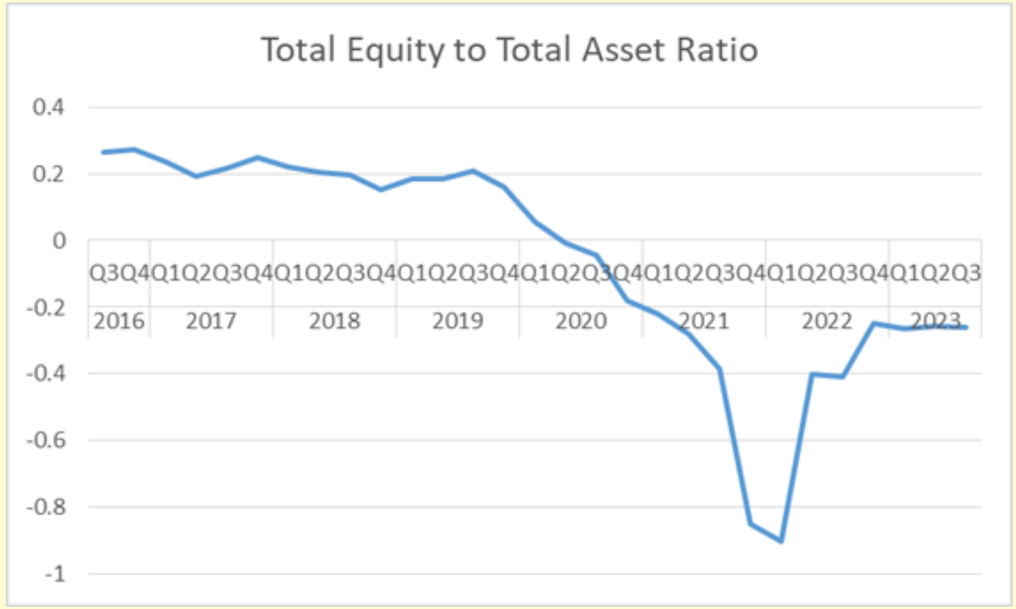
SOLVENCY RATIO



From Q3 2016 to Q3 2023, Garuda Indonesia's Debt to Equity Ratio (DER) remained relatively stable with minor fluctuations until Q1 2020, showing consistent financial leverage. However, during the pandemic, the DER averaged -6.20, reflecting a severe financial strain with negative equity. In response, the company launched its "Beyond the Limit" strategy in 2022-2023 to improve operational efficiency and reduce costs.

Debt to Equity Ratio					
Before COVID - 19			During COVID-19		
2016	Q3	2.81	2020	Q1	17.26
	Q4	2.70		Q2	-12.95
	Q1	3.26		Q3	-22.74
	Q2	4.26		Q4	-6.55
2017	Q3	3.64	2021	Q1	-5.56
	Q4	3.01		Q2	-4.55
	Q1	3.54		Q3	-3.61
	Q2	3.90		Q4	-2.18
2018	Q3	4.08	2022	Q1	-2.11
	Q4	5.49		Q2	-3.49
	Q1	4.47		Q3	-3.44
	Q2	4.42		Q4	-5.06
2019	Q3	3.85	2023	Q1	-4.77
	Q4	5.18		Q2	-4.90
				Q3	-4.82
Average		3.90	Average		-6.20
Differences of Average Before-During COVID-19					549%

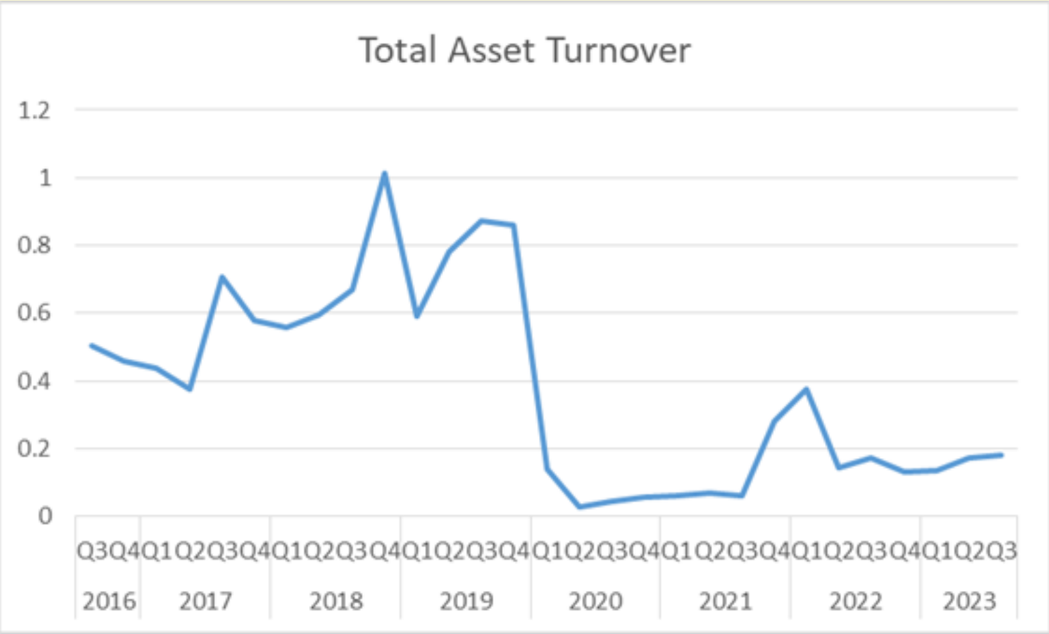
TOTAL EQUITY TO TOTAL ASSET SOLVENCY RATIO



Total Equity to Total Asset Ratio					
Before COVID - 19			During COVID-19		
2016	Q3	0.26	2020.00	Q1	0.05
	Q4	0.27		Q2	-0.01
	Q1	0.24		Q3	-0.05
	Q2	0.19		Q4	-0.18
2017	Q3	0.22	2021.00	Q1	-0.22
	Q4	0.25		Q2	-0.28
	Q1	0.22		Q3	-0.38
	Q2	0.20		Q4	-0.85
2018	Q3	0.20	2022.00	Q1	-0.90
	Q4	0.15		Q2	-0.40
	Q1	0.18		Q3	-0.41
	Q2	0.18		Q4	-0.25
2019	Q3	0.21	2023.00	Q1	-0.27
	Q4	0.16		Q2	-0.26
				Q3	-0.26
Average		0.21	Average		-0.34

Garuda Indonesia's Total Equity to Total Asset Ratio was 21% before the COVID-19 pandemic, indicating a stable financial structure with moderate debt dependency. However, during the pandemic, this ratio dropped drastically to -34%. Over the period from Q3 2016 to Q3 2023, the ratio was stable around 0.3 until it began to decline, reaching a low of approximately -0.2 by Q3 2020. This decline highlights the significant financial strain the pandemic placed on the company's equity.

TOTAL ASSET TURNOVER ACTIVITY RATIO

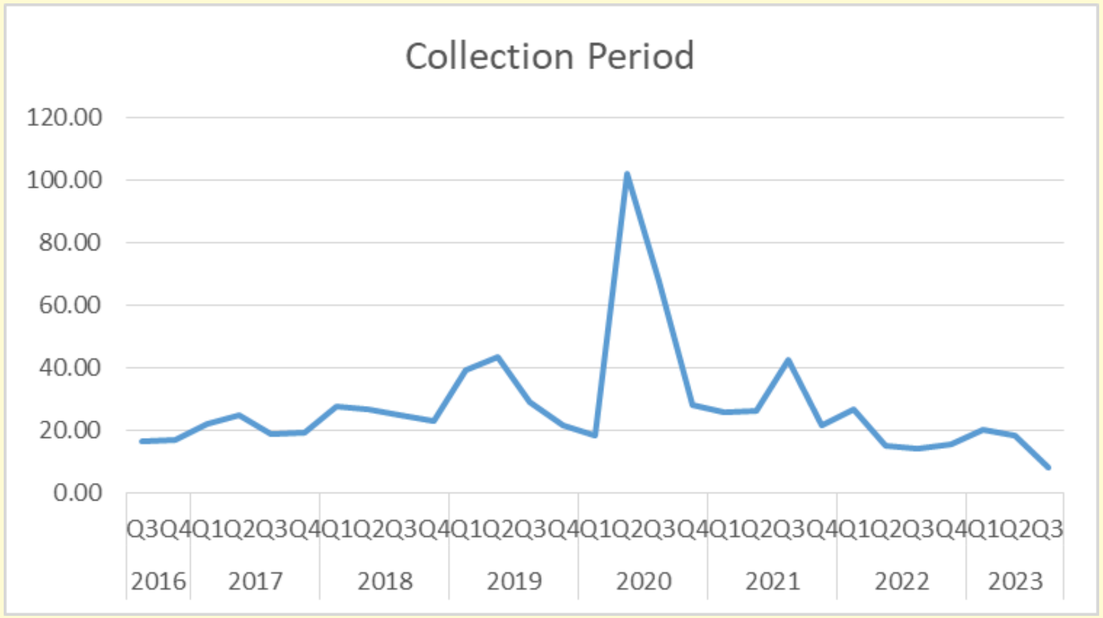


Total Asset Turnover					
Before COVID - 19			During COVID-19		
2016	Q3	0.51	2020	Q1	0.14
	Q4	0.46		Q2	0.03
	Q1	0.44		Q3	0.04
	Q2	0.37		Q4	0.05
2017	Q3	0.71	2021	Q1	0.06
	Q4	0.58		Q2	0.07
	Q1	0.56		Q3	0.06
	Q2	0.59		Q4	0.28
2018	Q3	0.67	2022	Q1	0.38
	Q4	1.02		Q2	0.14
	Q1	0.59		Q3	0.17
	Q2	0.78		Q4	0.13
2019	Q3	0.87	2023	Q1	0.14
	Q4	0.86		Q2	0.17
				Q3	0.18
Average		0.64	Average		0.14

Garuda Indonesia's Total Asset Turnover (TAT) has shown significant fluctuations over time. Notably, in 2019, there was a substantial increase of 3.22% in domestic market share compared to 2018. However, the COVID-19 pandemic severely impacted the company's asset utilization efficiency. Prior to the pandemic, the average TAT was 0.64. During the pandemic, this figure plummeted to 0.14, illustrating a drastic decline in the company's ability to generate revenue from its assets due to the pandemic's effects.

COLLECTION PERIOD

ACTIVITY RATIO



Collection Period					
Before COVID - 19			During COVID-19		
2016	Q3	16.36	2020	Q1	18.30
	Q4	17.24		Q2	102.18
2017	Q1	22.18		Q3	67.72
	Q2	25.00		Q4	28.23
	Q3	18.96	2021	Q1	25.74
	Q4	19.36		Q2	26.08
2018	Q1	27.71		Q3	42.69
	Q2	26.56		Q4	21.44
	Q3	24.76	2022	Q1	26.71
	Q4	23.22		Q2	15.22
2019	Q1	39.24		Q3	14.38
	Q2	43.51		Q4	15.58
	Q3	29.10	2023	Q1	20.09
	Q4	21.79		Q2	18.57
				Q3	8.37
Average		25.36	Average		30.93

A significant peak occurred in the second quarter of 2020, marking the highest collection period. Following this peak, the collection period generally decreased until the end of 2022. The increase in Garuda Indonesia's Collection Period shown in Table from 25.36 days before the pandemic to 30.93 days during the pandemic reflects a decrease in efficiency in collecting receivables.

ALTMAN Z-SCORE

Altman Z-Score Before COVID-19	2016			2017				
	Q2	Q3	Q4	Q1	Q2	Q3	Q4	
	-0.451	-0.233	-0.374	-0.611	-0.603	-0.232	-0.362	
	2018				2019			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
	-0.571	-0.561	-0.457	-0.721	-0.311	-0.375	-0.138	-0.544
Altman Z-Score During COVID-19	2020				2021			
	Q1 (Cut Off)	Q2	Q3	Q4	Q1	Q2	Q3	Q4
	-0.579	-1.060	-0.830	-1.305	-3.847	-3.953	-4.163	-5.762
	2022				2023			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
	-3.773	1.176	-3.701	-3.579	-3.717	-3.569	-3.572	-3.244

<1.23

1.23-2.9

>2.9

n 2016, Garuda Indonesia's Altman Z-Score was -0.233, indicating severe financial instability, with a Working Capital to Total Assets ratio reflecting liquidity issues (Jaya, 2022). Financial conditions worsened leading up to the COVID-19 pandemic, marked by significant declines in 2017, late 2018, and 2019, primarily due to high debt and interest burdens (Singh & Bansal, 2020). Despite a slight improvement to 1.17 in Q2 2022, the Z-Score remained negative throughout 2020 and 2021, reaching -5.762 by Q4 2021. This reflects ongoing financial distress exacerbated by the pandemic, highlighting high bankruptcy risk (Coudert et al., 2011).

Distribution Normality Test Analysis

7 out of 16 financial performance data points for Garuda Indonesia before and during COVID-19 are not normally distributed. This can occur if the data contains extreme scores, whether extremely high or extremely low, which can cause the data distribution to be not normally distributed (Heryana, 2023).

Financial Ratio	Saphiro-Wilk Test		Conclusion
	p-value	Statistics	
	Before COVID-19		
ROE	0.420	0.940	H0 Accepted
ROA	0.488	0.945	H0 Accepted
Total Asset Turnover	0.723	0.96	H0 Accepted
Collection Period	0.051	0.876	H0 Accepted
Debt to Equity Ratio	0.828	0.967	H0 Accepted
Total Equity to Total Asset Ratio	0.900	0.972	H0 Accepted
Current Ratio	0.185	0.915	H0 Accepted
Cash Ratio	0.080	0.890	H0 Accepted
	During COVID-19		
ROE	< 0.001	0.740	H0 Rejected
ROA	< 0.001	0.630	H0 Rejected
Total Asset Turnover	0.054	0.878	H0 Accepted
Collection Period	< 0.001	0.727	H0 Rejected
Debt to Equity Ratio	< 0.001	0.646	H0 Rejected
Total Equity to Total Asset Ratio	0.013	0.833	H0 Rejected
Current Ratio	0.005	0.789	H0 Rejected
Cash Ratio	0.002	0.763	H0 Rejected

Distribution Normality Test Analysis

Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
ALTMAN Z-SCORE BEFORE	0.142	15	.200*	0.970	15	0.861
ALTMAN Z-SCORE DURING	0.297	15	0.001	0.846	15	0.015

The significance value result of the Saphiro-Wilk test for Altman Z-Score before COVID-19 is 0.861 and during COVID-19 is 0.015 the data before COVID-19 is higher than 0.05, but for data during COVID-19 is less than 0.05. Hence, it concludes that the data are not normally distributed and will tested by a non-parametric test.

HYPOTHESIS TESTING

H1: Return on Equity in Profitability Ratio before COVID-19 is better than during the COVID-19 pandemic

Test Statistics

	ROE DURING-ROE BEFORE
Z	-2.04
Asymp. Sig.	0.041

The z-value of -2.04 indicates that the test statistic is 2.04 standard deviations below the mean value expected under the null hypothesis. A one-tailed test with a p-value of 0.020, indicating a 2% probability of the observed difference occurring under the null hypothesis, would be used. Since this p-value is less than 0.05, it suggests that the difference observed is statistically significant, meaning that you would reject the null hypothesis. **Therefore, the result reject the null hypothesis or before COVID-19 ROE is better than during COVID-19.**

HYPOTHESIS TESTING

H2: Return on Assets in Profitability Ratio before COVID-19 is better than during the COVID-19 pandemic.

Test Statistics

	ROA DURING-ROA BEFORE
Z	-1.538
Asymp. Sig.	0.124

A one-tailed test with a p-value of 0.062, indicating a 6.2% probability of the observed difference occurring under the null hypothesis, would be used. **Therefore, the result fails to reject the null hypothesis.**

H3: Current Ratio in Liquidity Ratio before COVID-19 is better than during the COVID-19 pandemic.

Test Statistics

	CURRENT RATIO DURING- CURRENT RATIO BEFORE
Z	-2.480
Asymp. Sig.	0.013

Since the p-value (0.0065) is less than the significance level (0.05), **the result rejects the null hypothesis.**

HYPOTHESIS TESTING

H4: Cash Ratio in Liquidity Ratio before COVID-19 is better than during the COVID-19 pandemic.

Test Statistics

	CASH RATIO DURING- CASH RATIO BEFORE
Z	-3.296
Asymp. Sig.	< 0.001

Since the p-value (< 0.0005) is significantly smaller than the significance level (0.05), **the result rejects the null hypothesis.**

H5: Debt to Equity Ratio in Solvency Ratio before COVID-19 is better than during the COVID-19 pandemic.

Test Statistics

	DER DURING - DER BEFORE
Z	-3.296
Asymp. Sig.	< 0.001

Since the p-value (< 0.0005) is significantly smaller than the significance level (0.05), **the result rejects the null hypothesis.**

H6: Total Equity to Total Assets Ratio in Solvency Ratio before COVID-19 is better than during the COVID-19 pandemic.

Test Statistics

	TOTAL EQUITY TO T[illegible]ET DURING - TOTAL EQUITY TO TOTAL ASSET BEFORE
Z	-3.297
Asymp. Sig.	< 0.001

Chart Area

Since the p-value (< 0.0005) is significantly smaller than the significance level (0.05), **the result rejects the null hypothesis.**

HYPOTHESIS TESTING

H7: Total Assets Turnover Ratio in Activity Ratio before COVID-19 is better than during the COVID-19 pandemic.

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	TOTAL ASSET TURNOVER BEFORE	0.6436	14	0.18566	0.04962
	TOTAL ASSET TURNOVER DURING	0.1357	14	0.09936	0.02656

Paired Samples Correlations

		N	Correlation	Sig.
Pair 1	TOTAL ASSET TURNOVER BEFORE & TOTAL ASSET TURNOVER DURING	14	0.319	0.267

Paired Sample Test

		Paired Differences								
					95% Confidence Interval of the Difference					
		Mean	Std. Deviation	Std. Error Mean	Lower	Upper	T	df	Sig. (2-tailed)	Sig. (1-Tailed)
Pair 1	TOTAL ASSET TURNOVER BEFORE - TOTAL ASSET TURNOVER DURING	0.50786	0.18052	0.04825	0.40363	0.61209	10.526	13	<0.001	<0.0005

A t-value of 10.526 indicates that the observed difference is only 10.526 standard deviations away from the hypothesized value (often zero). A t-value this large would correspond to a very small p-value (much less than 0.05), meaning that the result is statistically significant. The one-sided p-value is <0.0005. **Since the p-value is greater than 0.05, the result fails to accept the null hypothesis.**

HYPOTHESIS TESTING

H8: Collection Period in Activity Ratio before COVID-19 is better than during the COVID-19 pandemic.

Test Statistics

	COLLECTION PERIOD DURING - COLLECTION PERIOD BEFORE
Z	-0.282
Asymp. Sig.	0.778

A one-tailed test would yield a p-value is 0.336. Since the p-value is larger than the significance level (0.05), the result fails to rejects the null hypothesis. As a result, the data does not provide sufficient evidence to reject the null hypothesis, leading to the conclusion that **there is no statistically significant difference between Collection Period in Before and During COVID-19.**

HYPOTHESIS TESTING

H9: The financial health of Garuda Indonesia before COVID-19 is better than during the COVID-19 pandemic.

Test Statistics

	ALTMAN Z-SCORE DURING – ALTMAN Z-SCORE BEFORE
Z	-3.181
Asymp. Sig.	0.001

A one-tailed test would yield a p-value less than 0.0005, indicating a less than 0.05% chance of observing a severe difference under the null hypothesis. Since the p-value (< 0.0005) is significantly smaller than the significance level (0.05), the result rejects the null hypothesis. **This means that the observed difference in the Altman Z-Score is better before COVID-19 than during COVID-19 or reject the null hypothesis.**

CONCLUSION & RECOMMENDATION

CHAPTER 5

Conclusion

To analyze and evaluate the financial performance condition of Garuda Indonesia before and during COVID-19.

During the COVID-19 pandemic, Garuda Indonesia faced significant financial challenges. The ROE dropped from a low of -0.257 before the pandemic to -0.247 in 2020, highlighting worsening financial conditions. The ROA remained relatively stable, ranging from -0.049 to 0.022 before the pandemic and from -0.349 to 0.680. The Total Asset Turnover Ratio decreased from 0.375–1.015 (2016-2019) to 0.025–0.280, while the Collection Period increased to 8.37–102.18. The Debt to Equity Ratio turned negative, ranging from -22.74 to -2.18, and the Total Equity to Total Asset Ratio also declined to -0.90 to 0.05. Both the Current Ratio and Cash Ratio saw sharp declines, with the Current Ratio dropping to 0.06–0.48 and the Cash Ratio to 0.01–0.22, though the latter began to improve in Q1 2023.

To identify and analyze any significant differences in Garuda Indonesia's financial performance measures before and during the COVID-19 pandemic.

Out of 8 tested financial ratios, ROA and Collection Period showed no difference before and during the COVID-19 pandemic, with p-values greater than 0.05, indicating no improvement. In contrast, the Total Asset Turnover, ROE, Cash Ratio, Current Ratio, Total Equity to Total Asset, and Debt to Equity Ratios all had p-values below 0.05, showing that these ratio were significantly stronger before the pandemic

Conclusion

To assess Garuda Indonesia's financial health before and during the COVID-19 pandemic, using Altman Z-score analysis.

From 2016 to 2023, Garuda Indonesia's Altman Z-Score showed a consistent decline, exacerbated by the COVID-19 pandemic. In Q4 2016, the Z-Score was -0.451, indicating severe financial issues. By Q4 2021, it had worsened to -5.762, reflecting extreme distress. Despite a brief improvement to 1.176 in Q2 2022, the score remained negative, signaling ongoing financial distress and a high risk of bankruptcy. This trend underscores Garuda Indonesia’s persistent financial struggles

To identify and analyze any significant differences in Garuda Indonesia’s financial healthiness measures before and during the COVID-19 pandemic, using Altman Z-Score analysis.

The Wilcoxon test comparing the Altman Z-Score before and during the COVID-19 pandemic shows that Altman Z-Score is better in before pandemic than during the pandemic.

Recommendation

Debt Management and Financial Restructuring

Garuda Indonesia needs to restructure its debt . This can be done by renegotiating with creditors to extend payment terms, lower interest rates, or convert some debt into equity to improve the company's capital structure. Implement strict cost-control measures to reduce operational expenses. This includes optimizing fleet operations, renegotiating supplier contracts, and reducing administrative costs.

Improving Profitability Through Pricing Strategy and Operational Efficiency

Companies should review their ticket pricing policies and sales strategies to ensure they are competitive while still providing adequate profit margins. Using data analytics to dynamically adjust ticket prices based on market demand can improve profitability. In addition, companies need to increase operational efficiency to improve activity ratios, which will also contribute to improving long-term profitability.Explore new revenue sources, such as increasing cargo services, expanding routes with high demand, and enhancing ancillary services.

Expand Financial Metrics and Benchmarking

Future assessments should incorporate additional financial metrics to provide a more comprehensive analysis. Garuda Indonesia should also benchmark its performance against other airlines, tailor financial distress tools like the Altman Z-Score to industry-specific challenges, and improve data accuracy through new sources and robust models.

References

Abbas, J., Mubeen, R., Iorember, P. T., Raza, S., & Mamirkulova, G. (2021). Exploring the impact of COVID-19 on tourism: transformational potential and implications for a sustainable recovery of the travel and leisure industry. Current Research in Behavioral Sciences(2), 1-11. doi:https://doi.org/10.1016/j.crbeha.2021.100033

Admininaca. (2020, March 12). Denon Prawiraatmadja: The Indonesia's Airlines are Going Through a Series of Turbulence. Dipetik August 07, 2024, dari Indonesia National Air Carriers Assosiation: https://inaca.or.id/denon-prawiraatmadja-the-indonesias-airlines-are-going-through-a-series-of-turbulence/

Allua, S., & Thompson, C. B. (2009). Basic of Research. Air Medical Journal, 28(3), 108-110. Diambil kembali dari https://www.airmedicaljournal.com/article/S1067-991X(09)00068-6/fulltext

Al-Sulaiti, K. I., & Almwajeh, O. (2021). Applying Altman Z-Score Model of Bankruptcy on Service Organizations and its Implications on Marketing Concepts and Strategies. JIMMR, 32(2) 59-75.

Altman, E. I., & Hotchkiss, E. (1993). Corporate financial distress and bankruptcy. John Wiley & Sons, 105-110.

Altman, E. I., Iwanicz-Drozdowska, M., Laitinen, E. K., & Suvas, A. (2017). Financial Distress Prediction in an International Context: A Review and Empirical Analysis of Altman's Z-Score Model. Journal of International Financial Management & Accounting, 28(2), 132-171. doi:10.1111/jifm.12053

Aman, Q., & Altass, S. (2021). Pre-and Post-COVID-19 condition, performance and future of the airline industry: Evidence from accounting data. Amazonia, 10(37), 9-24.

Ambrosius, W. T. (2007). Topics in Biostatistics. New Jersey: Humana Press Inc.

Aprilia, O., & Daryanto, W. M. (2021). Abalysis financial performnace of PT Astra International TBK before and after economy crisis in 2019. International Journal of Business, Economics and Law, 24(2), 1-10.

Asia, A. (2024). Dipetik 3 6, 2024, dari Air Asia Indonesia: https://ir-id.aaid.co.id/corporate_profile.html

Azzahra, S. (2021). Analisis Rasio Solvabilitas terhadap Kinerja Keuangan PT Garuda Indonesia di Masa Pandemi. Point Jurnal, 3(1). doi:https://doi.org/10.46918/point.v3i1.909

Bank, A. D. (2023). LANDSCAPE STUDY ON SOUTHEAST ASIA'S AVIATION INDUSTRY. Philippines: Asian Development Bank.

Bank, W. (2020). The Global Economic Outlook During the COVID-19 Pandemic: A Changed World. Dipetik 2 29, 2024, dari The World Bank: https://www.worldbank.org/en/news/feature/2020/06/08/the-global-economic-outlook-during-the-covid-19-pandemic-a-changed-world

Baskara, P. C., & Rahyuda, H. (2016). PENILAIAN TINGKAT KESEHATAN KEUANGAN PT. PEGADAIAN (PERSERO) BERDASARKAN KEPUTUSAN MENTERI BUMN NO: KEP-100/MBU/2002. E-Jurnal Manajemen Unud, 5(1), 236-259.

Bhunia, A., Mukhuti, S. S., & Roy, S. G. (2012). Financial Performance Analysis-A Case Study. Current Research Journal of Social Sciences , 3(3), 269-275.

Boslaugh, S. (2013). Statistics in a Nutshell, Second Edition. Sebastopol: O'Reilly Media, Inc.

Budi, H. S., & Davianti, A. (2023). Firms' Profitability and Stock Returns: Does it Always Affect Firms? International Journal of Social Science and Business, 6(1), 103-109.

CFI. (2020). Corporate Finance Institute. Dipetik 8 6, 2024, dari Solvency Ratio: https://corporatefinanceinstitute.com/resources/commercial-lending/solvency-ratio/

References

Colleges, M. C. (2023). Introduction to Statistics for Psychology. Dipetik August 7, 2024, dari Maricopa Edu: https://open.maricopa.edu/psy230mm/chapter/chapter-1-z-test-hypothesis-testing/

Coudert, V., Couharde, C., & Mignon, V. (2011). Exchange rate volatility across financial crises. Journal of Banking & Finance, 35(11), 3010-2018.

Coulon, Y. (2020). Key Liquidity and Solvency Ratio. Palgrave Pivot, Cham. doi:https://doi.org/10.1007/978-3-030-34265-4_3

Coulon, Y. (2020). Rational Investing with Ratios: Implementing Ratios with Enterprise Value and Behavioral Finance. Springer.

Curran, A. (2020, August 10). Garuda Indonesia Records $712M Loss In The First Half Of 2020. Dipetik August 7, 2024, dari Simple Flying: https://simpleflying.com/garuda-indonesia-loss/

Dahlan, A., & Manda, R. (2023). ANALISIS RASIO KEUANGAN UNTUK MENGUKUR KINERJA KEUANGAN PADA PT. GARUDA INDONESIA (Persero) Tbk periode tahun 2017-2021. Accounting, Accountability and Organization System (AAOS) Journal, 4(2), 217-236.

Daryanto, C. (2019). Financial performance analysis of pharmaceutical companies before and after the implementation of BPJS Kesehatan program during the period of 2010-2017. Jakarta: IPMI International Business School.

Daryanto, W. M., & Meriana. (2019). Financial Performance Analysis of Indonesia Pharmaceutical Industry before and during the Implementation of National Health Insurance. International Journal of Innovation, Creativity and Change, 8(12), 124-138.

Daryanto, W. M., Lazuardi, D., & Rachman, G. P. (2020). Pacific Century Cyberwork (PCCW) Media Group Revenue Comparison Before and After VIU (Streaming Media), 2012-2018 Period. International Journal of Business, Economics and Law, 21(1), 11-17.

Daryanto, W. M., Leonard, H., & Wijaya, H. (2020). Analysis of Indonesia 2014 Cigarette Packaging Regulation Impact on PT Hanjaya Mandala Sampoerna's Financial Performance. International Journal of Business, Economics and Law, 22(3), 9-18.

Daryanto, W. M., Maharani, A. P., & Wiradjaja, N. (2021). Profitability ratio analysis before and during COVID-19: case study in PT Japfa Comfeed Indonesia. South East Asia Journal of Contemporary Business, Economics and Law, 24(4), 1-8.

Daryanto, W. M., Rizki, M. I., & Mahardhika. (2021). Financial performance analysis of construction company before and during covid-19 pandemic in Indonesia. International Journal of Business, Economics and Law, 24(4), 99-108.

Daryanto, W. M., Widjaya, B., & Hakim, R. A. (2021). Financial ratio analysis of PT ACE Hardware Indonesia Tbk to measure financial performance before and during COVID-19 pandemic. South East Asia Journal of Contemporary Business, Economics and Law, 24(4), 1-9.

Dyvik, E. H. (2024). Dipetik 2 29, 2024, dari Statista: https://www.statista.com/topics/6139/covid-19-impact-on-the-global-economy/#topicOverview

Falinda, S., & Muniarty, P. (2023). Analisis Perbandingan ROA Dan ROE Pada PT. BRI, Tbk Dan PT. BNI, Tbk. Jurnal Ilmiah Manajemen dan Kewirausahaan, 2(2), 210-216.

Fatmawati, A., & Wahidahwati. (2017). Faktor-Faktor yang Mempengaruhi Financial Distress (Studi Pada Perusahaan Manufaktur di BEI). Jurnal Ilmu dan Riset Akuntansi, 6(10).

References

Fau, S. H. (2021). ANALISIS KEBANGKRUTAN MENGGUNAKAN MODEL ALTMAN Z-SCORE PT. GARUDA INDONESIA (PERSERO) TBK. BALANCE : Jurnal Riset Akuntansi dan Bisnis, 24(2), 1-10.

Febriana, D. A., & Lestari, W. D. (2023). Analysis Of Differences in Financial Performance Before And After The Covid-19 Pandemic (At PT. Garuda Indonesia Tbk. 2018-2021 Period). IQTISHADequity Jurnal Manajemen, 5(2). doi:https://doi.org/10.51804/iej.v5i2.12229

Gayatri, H. W., & Thamrin, H. (2020). Impact of Fundamental Factors and Exchange Rate on the Stock Price of PT Garuda Indonesia (Persero) Tbk Period of 2011-2018. International Journal of Innovative Science and Research Technology, 5(1), 1243-1250.

George, D., & Mallery, P. (2010). SPSS for Windows Step by Step : A Simple Guide and Reference. Allyn & Bacon.

GIA. (2020). Annual Report. PT Garuda Indonesia.

GIAA. (2015). Annual Report. Garuda Indonesia.

GIAA. (2019). Annual Report. Garuda Indonesia.

GIAA. (2021). Annual Report. Garuda Indonesia.

GIAA. (2022). Annual Report. Garuda Indonesia.

GIAA. (2023). Annual Report. Garuda Indonesia.

GIAA. (2023). Corporate Presentation Q1 2023. Garuda Indonesia.

GIAA. (2023). Materials for the 2022 Annual GMS PT Garuda Indonesia (Persero) Tbk. Garuda Indonesia.

Gitman, L. J., & Zutter, C. J. (2015). Principles of managerial finance, 14th Edition. Harlow, Essex Pearson Education Limited.

Herawati, I. D., & Paradona. (2022). PENILAIAN BISNIS PERUSAHAAN PT. GARUDA INDONESIA (PERSERO) Tbk TERHADAP LAPORAN KEUANGAN TAHUN 2017 SAMPAI DENGAN TAHUN 2020. Jurnal Publikasi Ilmu Ekonomi dan Akuntansi, 2(1), 12-22.

Heryana, A. (2023). Bekerja dengan Data Tidak Normal. doi:10.13140/RG.2.2.27700.73604

Holili, M., Paramita, R. W., & Taufiq, M. (2021). Pengaruh Return on Assets, Current Ratio, Debt to Equity Ratio, dan Return on Equity untuk Memperbaiki Financial Distress. Journal of Accounting, 3(4), 175-180.

Hutabarat, J. F., & Astutik, E. P. (2022). ANALISIS KINERJA KEUANGAN PADA PT GARUDA INDONESIA TBK PADA TAHUN SEBELUM PANDEMI DAN SAAT PANDEMI COVID-19 (Studi Kasus pada Tahun 2017-2021). JURNAL ECONOMINA, 1(4).

Indonesia, A. (2020). Annual Report. PT. AirAsia Indonesia.

Investments, I. (2024). Dipetik 3 4, 2024, dari Indonesia Investments: https://www.indonesia-investments.com/id/bisnis/profil-perusahaan/garuda-indonesia/item211

References

Jaya, B. S. (2022). ANALISIS PREDIKSI KEBANGKRUTAN DENGAN METODE ALTMAN, SPRINGATE, DAN GROVER PADA PT GARUDA INDONESIA (PERSERO) TBK. Bali: Politeknik Negeri Bali

John, B., Guerard, Anureet, S., & Mustafa, G. (2021). Financing Current Operations and Efficiency Ratio Analysis.

Joshi, M. (2015). Divergence between Operating Profit and EBIT. New Horizons in Accounting Comerce and Banking, (hal. 1-6). India.

Kenton, W. (2020). Shareholder Equity Ratio. Dipetik 3 15, 2024, dari Investopedia: https://www.investopedia.com/terms/s/shareholderequityratio.asp

Krishnankutty, R., & Chakraborty, K. S. (2011). Determinants of Current Ratios: A Study with Reference to Companies Listed in Bombay Stock Exchange. Munich Personal RePEc Archive, 1-12.

Kurniawati, R., & Listyowati. (2021). Analysis of the Airline's Financial Performance During the Covid-19 Pandemic. Jurnal Akuntansi dan Perpajakan, 7(2), 81-91. Diambil kembali dari http://jurnal.unmer.ac.id/index.php/ap

Lestari, P. I., & Fitranita, V. (2024). The effect of financial performance on financial distress at PT Garuda Indonesia (Persero) Tbk. Proceeding of International Conference on Accounting & Finance, 2, 187-196.

Manik, E., Affandi, A., Priadana, S., Hadian, D., & Puspitaningrum, D. A. (2023). Comparison of normality testing with chi quadrat calculations and tables for the statistical value departement of elementary school education student at the University of Jember. AIP Conference Proceedings. AIP Publishing.

Mayers, J. L., & Well, A. (2003). Research Design and Statistical (2 ed.). NJ: Erlbaum Associates, Inc.

Mishra, P., Singh, U., Pande, C. M., Mishra, P., & Pandey, G. (2019). Application of Student's T, Analysis of Variance, and Covariance. Ann Card Anaesth, 22(4), 407-411.

MSU. (2023). Michigan State University. Dipetik June 17, 2024, dari Understanding the Difference Between Quantitative and Qualitative Analytics: https://www.michiganstateuniversityonline.com/resources/business-analytics/difference-between-quantitative-and-qualitative-analytics/

Mulia, K. A., & Daryanto, W. M. (2021). FINANCIAL PERFORMANCE ANALYSIS OF FOOD AND BEVERAGE INDUSTRY: BEFORE AND AFTER THE EMERGENCE OF COVID-19 OUTBREAK IN INDONESIA. International Journal of Business, Economics and Law, 25(1), 1-13.

Mutmainah, S., Aprilia, A. N., & Citradewi, A. (2023). Analisis Kinerja Keuangan Menggunakan Rasio Likuiditas dan Rasio Solvabilitas pada PT. Garuda Indonesia Tbk. Journal Islamic Accounting Competency, 3(2), 31-42.

Nadya, K. (2023, July 14). Begini Rumus Debt to Equity Ratio: Berapa Rasio Utang yang Tergolong Aman? Dipetik August 11, 2024, dari Indonesia Stock Exchange Channel: https://www.idxchannel.com/market-news/begini-rumus-debt-to-equity-ratio-berapa-rasio-utang-yang-tergolong-aman

Nasrallah, Khaliq, A., Sarda, S., Aulia, & julianto, H. D. (2023). The Effects of Financial Performance on Stock Returns in Manufacturing Companies listed on the IDX for the 2018-2022 Period. Jurnal Ilmu Manajemen, 7(2), 2614-3976.

Nguyen, D., Mishra, S., Prakash, A., & Ghosh, D. K. (2007). LIQUIDITY AND ASSET PRICING UNDER THE THREE-MOMENT CAPM PARADIGM. Journal of Financial Research, 30(3), 379-393. doi:https://doi.org/10.1111/j.1475-6803.2007.00219.x

References

Nurhayati, Mufidah, A., & Kholidah, A. N. (2017). The Determinants of Financial Distress of Basic Industry and Chemical Companies Listed in Indonesia Stock Exchange. Review of Management and Entrepreneurship, 1(2), 19-26. doi:https://doi.org/10.37715/rme.v1i2.605

Pak, A., Adegboye, O. A., Adekunle, A. I., Rahman, K. M., McBryde, E. S., & Eisen, D. P. (2020). Economic consequences of Covid-19 pandemics outbreak: the need for epidemic preparedness. Frontiers in Public Health, 8(241), 1-4.

Panigrahi, A. (2019). Validity of Altman's "Z" Score Model in Predicting FInancial Distress of Companies. 4(1), 65-73.

Prel, J.-B. d., Röhrig, B., Hommel, G., & Blettner, M. (2010). Choosing statistical tests: part 12 of a series on evaluation of scientific publications. Dtsch Arztebl Int, 107(19). doi:doi: 10.3238/arztebl.2010.0343

Primandari, N. R., Rabiulkhri, M., & Ulandari. (2024). ANALISIS KINERJA KEUANGAN SEBELUM DAN SELAMA PANDEMI COVID-19 PADA PERUSAHAAN PENERBANGAN PT. GARUDA INDONESIA TBK PADA TAHUN 2017-2022. Makro, Jurnal Manajemen & Kewirausahaan, 9(1), 90-102.

Rababah, A., Al-Haddad, L., Sial, M. S., Chunmei, Z., & Cherian, J. (2020). Analyzing the effects of COVID-19 pandemic on the financial performance of Chineses listed companies. Journal Public Affairs. doi:https://doi.org/10.1002/pa.2440

Rachmawati, D., & Maulana, A. D. (2022). Penerapan model Altman (Z-Score) untuk mengukur potensi financial distress perusahaan maskapai penerbangan sebagai dampak pandemi COVID-19. Jurnal Manajemen Dirgantara, 15(1), 193-205.

Rachmawati, D., & Maulana, A. D. (2023). Financial distress condition of indonesian aviation sector companies before and during the COVID-19 pandemic. Jurnal Manajemen Strategi dan Aplikasi Bisnis, 6(1), 73-90.

Ratnawati, E. (2021). The Impacts of Government Policy on Covid-19 to Airlines Liability: A Case Study in Indonesia. JALREV, 3(1), 1-21.

Razali, N. M., & Wah, Y. B. (2011). Power comparisons of Shapiro-Wilk , Kolmogorov-Smirnov , Lilliefors and Anderson-Darling tests.

Restikadewi, A., Ramadhan, E. S., & Islam, A. A. (2021). The impact of COVID-19 on the tourism sector in Indonesia. Sebelas Maret Business Review , 6(1), 47-56.

Ross, A., & Willson, V. L. (2018). Basic and Advanced Statistical Tests: Writing Results Sections and Creating Tables and Figures. Springer.

Ross, N. L. (2021). Analysing Financial Performance Using Integrated Ratio Analysis. England: Routledge. doi:ISBN 9780367552527

Ross, S. A., Westerfield, R. W., & Jordan, B. D. (2010). Fundamentals of corporate finance 9th edition. New York: New York The McGraw-Hill Companies, Inc.

S, T., & I, A. (2024, January). Statistical Significance. Diambil kembali dari StatPearls [Internet]: https://www.ncbi.nlm.nih.gov/books/NBK459346/

Sari, B. P., & Daryanto, W. M. (2021). Profitability ratio analysis as measurement tool of financial performance study case of PT Pertamina (PERSERO). International Journal of Business, Economics and Law, 24(2), 1-6.

Seto, A. A. (2022). Altman Z-Score Model, Springate, Grover, Ohlson and Zmijweski to Assess the Financial Distress Potential of PT. Garuda Indonesia Tbk During and After the Covid-19 Pandemic. Enrichment: Journal of Management, 12(5), 1-8.

References

Sheskin, D. J. (2003). Handbook of Parametric and Nonparametric Statistical Procedures (3rd ed.). New York: Chapman and Hall/CRC.

Siegel, A. F., & Wagner, M. R. (2012). Practical Business Statistics (6 ed.). Elsevier.

Singh, A. K., & Bansal, P. (2020). Impact Of Financial Leverage On Firm's Performance And Valuation: A Panel Data Analysis. JOUR.

Spanò, M. (2019). Measuring finance for the economy and finance for finance. Finance, Growth and Inequality: Post-Keynesian Perspectives, 12-35.

Statistik, B. P. (2021). Indonesia Tourism Satellite Accounts 2016-2020. Dipetik 29 2, 2024, dari BPS-STATISTICS INDONESIA: https://www.bps.go.id/en/publication/2022/07/05/b3c824a618fff5f53bab4d8e/indonesia-tourism-satellite-accounts-2016-2020.html

Sulaiman, V. A., & Maria. (2022). Faktor-faktor yang mempengaruhi Stock Return Perusahaan yang Terdaftar di BEI. E-Jurnal Akuntansi TSM, 2(1), 269-282.

Tambunan, T. T. (2021). Covid-19 Pandemic and Severity of Economic Impacts: The Indonesian Case. Global Economics Science, 1-15.

Tindige, J. W., Rogahang, J. J., & Mangindaan, J. V. (2020). Kinerja Keuangan pada PT. Garuda Indonesia (Persero) Tbk Ditinjau dari Rasio Profitabilitas. Productivity, 1(3), 203-207. Diambil kembali dari https://ejournal.unsrat.ac.id/v3/index.php/productivity/article/view/29549

Triandi, & Christine, I. (2022). Analisis Kinerja Dan Posisi Keuangan PT Garuda Indonesia Tbk Berdasarkan Indikator Rasio Keuangan, Tingkat Kesehatan Dan Prediksi Keuangan. Jurnal Ilmiah Akuntansi Kesehatan, 10(2), 201-220. doi:10.37641/jiakes.v10i1.1440

Ummah, L. Z., Zuraidah, & Hariyanti, S. (2023). The Effect of ROA and ROE on Stock Prices During the Pandemic. Proceedings of Islamic Economics, Business, and Philanthropy, 2(2), 1-19.

UOL. (2022). MASH : Maths and Stats Help. Dipetik May 24, 2024, dari University of Lincoln: https://guides.library.lincoln.ac.uk/mash/statstest/shapiro-wilk

Vernimmen, P., & Quiry, P. (2005). Corporate Finance: Theory and Practice . United Kingdom : WILEY. Diambil kembali dari ISBN-978-1119841623

Winarko, H. B., & Jaya, F. I. (2018). USING PROFITABILITY RATIO AND ECONOMIC VALUE ADDED FOR FINANCIAL PERFORMANCE ANALYSIS IN AN INTEGRATED MEDIA COMPANY. Journal of Business and Entrepreneurship, 6(2), 22-45.

Yusuf, M., & Suratmadja, S. (2018). Analysis of Financial Performance on Profitability with Non Performance Financing as Variable Moderation (Study at Sharia Commercial Bank in Indonesia Period 2012 – 2016). International Journal of Economic and Financial Issues, 8(4), 126-132.

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