

Rentability Analysis of PT. Garuda Indonesia by Using Dupont Method period 2019-2020

Ismi Khoirunnisa, R. Agus Baktiono and Muchamad Arif
Department of Management, Faculty of Economics and Business
Universitas Narotama, Surabaya, Indonesia

ismikrunnisa2@gmail.com , agus.baktiono@narotama.ac.id , muchamad.arif@narotama.ac.id

Abstract

Financial performance is used as a benchmark for the company to see how far the company can continue to survive and develop, and also to see the overall financial health of the company during a certain period. This research basically aims to measure the financial performance of PT. Garuda Indonesia for the 2019-2020 period by applying a profitability analysis using the Dupont method which is based on a return on equity analysis model. The Dupont method is used to analyze a company's profitability and return on equity by dividing performance into four components: net profit margin, total asset turnover, equity multiplier, and return on investment. PT. Garuda Indonesia is the number one and largest national airline in Indonesia with services and facilities that meet world standards. In 2019, airlines were affected by the Covid-19 Pandemic era which caused a global financial crisis. The results found that the financial performance of PT. Garuda Indonesia in 2019-2020 tends to decline in net profit margin, equity multiplier, and return on investment. Meanwhile, the return on equity showed a figure of -7.65% and in the last year it jumped high by 127.46% where the company was at a loss due to low equity due to excessive debt.

Keywords

Dupont Analysis, Financial Performance, Rentability

1. Introduction

In the era of Coronavirus Disease (Covid-19) Pandemic, the world order has changed a lot in a short time. This pandemic spread rapidly on a wide scale and caused many casualties, changes in daily life patterns, significant limitations on socializing and working, as well as detrimental to economic development and growth in various countries. In Indonesia, based on the mapping, there are about 10 sectors or 60 percent of the total industries that are affected by the spread of the outbreak because there are indeed some industries that cannot run by only working from home. Many industries must keep trying to put themselves in a stable position and ready to compete in order to survive and thrive in the face of the situation. Basically even though every company has certain goals to achieve, the main goal is rentability.

Airline Industry, this transportation has an important role as the only air transportation that is fast, precise, well-maintained security and is the main driver of many other economic activities. Due to the current pandemic, it affects the entire productivity of the airline industry. PT. Garuda Indonesia is one of the airlines in Indonesia that has been affected by the Covid-19 outbreak. Many flights with domestic and international routes were forced to be restricted by implementing policies made by the Government of the Republic of Indonesia and local governments. With these various policies, Irfan Setiাপutra as Director of Garuda Indonesia said that the airline's revenue fell by 90%, while on the other hand, operational costs can only be reduced by 60%, but it still creates a wide gap between revenue and operating expenses. Many things have been done by airlines to reduce operational costs, through short-term and long-term initiatives.

Previous research used as comparison and reference material in this study is from Carlo Perosi Fau (2019), researching the Financial Performance Analysis of PT. Garuda Indonesia Tbk in 2014-2018. The results showed that in general the company's financial performance based on profitability ratios was not good because the results were still below the standard that had been set as a benchmark for ratio assessment. Which means, the company has not been able to earn a profit from any capital invested in assets and has not been able to maximize or make its working capital efficient.

Tindige, Rogahang, and Mangindaan (2020), researching the Financial Performance Report Analysis of PT. Garuda Indonesia (Persero) Tbk from Profitability Ratios. The results showed that in general the company's financial performance based on profitability ratios was not good because the results were still below the standard that had been set as a benchmark for ratio assessment. Which means, the company has not been able to earn a profit from any capital invested in assets and has not been able to maximize or make its working capital efficient.

Kurniasari Dwi Pratiwi (2020), researched on Financial Performance Assessment Using Du Pont Analysis at PT. Garuda Indonesia (Persero) Tbk 2015-2018. The results show that in general the financial performance using Du Pont's analysis has proven to be good and the ROI value is above the average in 2015, 2017 and 2018 which is 2.355%, -5.661% and -4.2%. And below the 2016 average of 0.250%.

Sahni Jasriani (2016), with the research title "Analyzing The Financial Performance of PT. Garuda Indonesia by using Dupont Analysis (period 2011-2015)". The results showed that In 2011-2015, the company's best financial performance was in 2012 with ROE reaching the highest 16%. In the last 5 years, the company experienced a significant decline in performance and the 2011-2015 financial performance was -0.6%, which means that for the last 5 years the company's performance has been poor.

Financial performance is a measure of the extent to which the company's finances are being or have been achieved and is an important aspect of financial risk management. One of the assessment tools that can be used by the company is the financial statements that are prepared in each period. The assessment can be done by comparing the total wealth or capital owned and the profits obtained, namely through Profitability analysis, to see how efficient the airline is in getting a net profit during the pandemic. There are various analytical techniques to measure the level of profitability of a company. In this case the researchers used the Dupont method. This method is used to analyze the company's profitability and return on equity which shows how these ratios are interrelated to determine profitability. With Dupont, companies will be able to see a clearer and more complete picture of the overall health and financial performance of what drives the return on equity and what is the relationship between NPM, TATO, EM and ROI

1.1 Literature Review

1. Financial Performance

According to Rudianto (2013), financial performance is the result or achievement that has been achieved by the company's management in managing the company's assets effectively during a certain period. Financial performance is needed by the company to know and evaluate the level of success of the company based on the financial activities that have been carried out. Meanwhile, according to another opinion, financial performance is a good prospect or future, growth, and development potential for the company. With the company's financial performance, it can be easier to find out the company's financial condition in each period, both regarding aspects of raising funds and distributing funds (Inge Barlian : 2003).

2. Rentability

Rentability or commonly referred to as Profitability is one of the financial ratio analysis that describes how the company's ability to earn profits through all capabilities and existing sources such as sales activities, cash, capital, number of employees, number of branches, and so on (Sofyan Syafri Harahap, 2015). According to (Sutrisno, 2003), is the ability of a company to generate profits with all the working capital in it.

3. Dupont Analysis

Dupont analysis is one of the financial methods used to increase the return on equity. In short, this ratio is an analytical tool used to analyze the profit of a company. Dupont Company is the name of the company that developed this method. The development of the Dupont method was carried out in the 1920s by the company. This company is known as a successful entrepreneur who has his own way of analyzing his financial statements. according to Brigham | Houston (2018), argues that the DuPont equation is a formula showing that the rate of return on equity is the product of the profit margin, total asset turnover, and the equity multiplier. The equation shows the relationship between asset management, debt management, and profitability ratios. according to Mamduh M. Hanafi and Abdul Halim (2002), Dupont analysis is an analysis that connects three kinds of ratios at once, namely return on investment, net income and asset turnover. Below is a schematic of the Dupont analysis that will be used. So, Dupont is a method that can be used by companies to analyze financial statements with a more integrative and detailed approach to each of its account items. For investors, this ratio is needed to find out what financial activities contribute the most to changes in the company's return on equity. In addition, the use of the Dupont method is also useful for the company's financial management to know in detail the various financial components that affect the company's financial performance in obtaining profits. By knowing the weaknesses and strengths of these financial component indicators, it is easier for financial management and so on to take appropriate policies in managing the company to be more effecient.

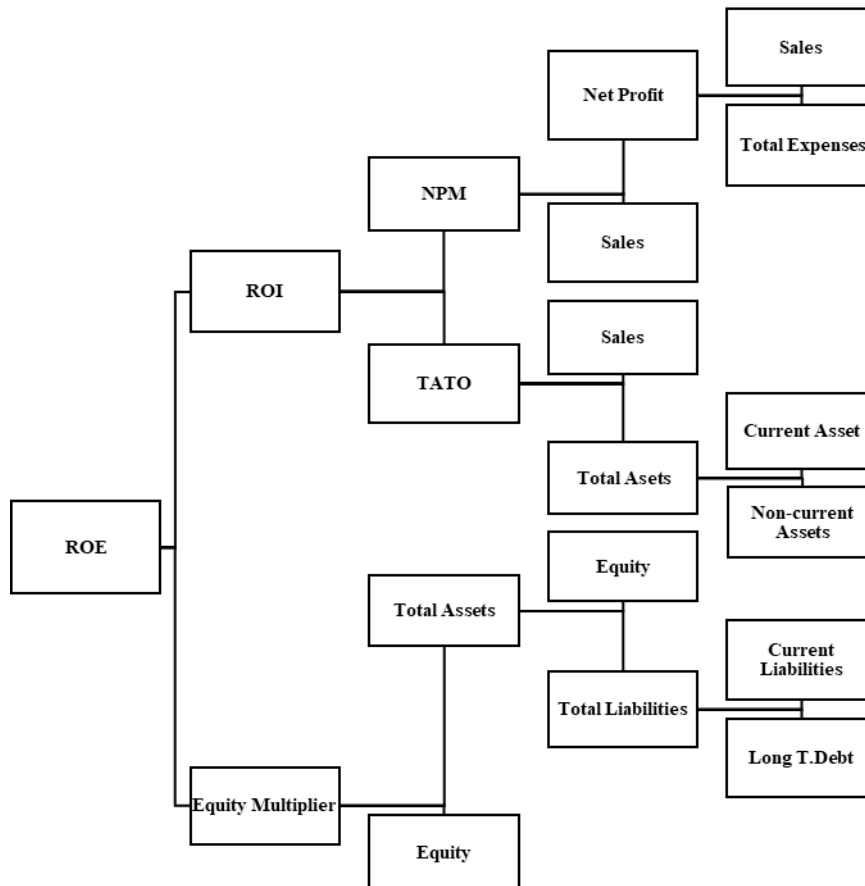


Figure 1. Dupont Analysis Schematic
Source : Sofyan Syafri Harahap (2015)

1) Net profit margin (NPM)

According to Brigham | Houston (2018), is a ratio that measures net income per dollar of sales, and is calculated by dividing net income by sales. The ratio also shows how big the percentage of net income is from each sale. The bigger this ratio, the better because it is considered that the company's ability to earn profits is quite high (Sofyan Syafri Harahap, 2015). Meanwhile, according to (Budiman, 2013), the ratio used to measure net profit per rupiah of sales. With a formula like this:

$$NPM = \frac{\text{Earning After Tax}}{\text{Sales}} \times 100\%$$

2) Asset Turnover (TATO)

This ratio is part of the activity ratio. This ratio shows how efficiently the company can use its total assets to generate sales. according to Brigham | Houston (2018), this ratio which measures the turnover of all company assets, calculated by dividing sales and total assets. Meanwhile, according to Sofyan Syafri Harahap (2015), this ratio shows total asset turnover measured by sales volume in other words how far the ability of all assets to create sales. The higher this ratio, the more efficiently the company uses its total assets and vice versa. With a formula like this:

$$TATO = \frac{\text{Sales}}{\text{Total Asset}}$$

3) Equity multiplier (EM)

This ratio compares the total assets owned with the amount of capital or equity of the business owner. In addition, this ratio can also measure the level of equity used as a source of financing. according to Darsono and Ashari (2010), Equity Multiplier is a ratio that shows the company's ability to utilize shareholder equity or how big the portion of company assets is financed by shareholders. Another opinion says that this ratio describes the comparison between total assets and total own capital Dedi Kusmayadi (2008). The smaller this ratio, the greater the funding used in the form of equity to finance assets. With a formula like this:

$$EM = \frac{\text{Total Assets}}{\text{Total Equity}}$$

4) Return on Investment (ROI)

According to Brigham | Houston (2018), return on investment (ROI) is a ratio that shows the return on the amount of assets used. This ratio is also a ratio that measures the effectiveness of management in managing its investments. according to Munawir (2007) This ratio is a measure of the ability used to cover investments that have been issued. With a formula like this:

$$ROI = NPM \times TATO$$

5) Return on equity (ROE)

Is part of the Profitability Ratio which shows the company's ability to generate profits after tax by using the company's own capital. according to Brigham | Houston (2018), this ratio is net income to equity common stock, measuring the return on investment of common stockholders. Meanwhile, according to Harry (2015) This ratio is used to measure the company's success in generating profits for shareholders. This ratio is considered as a representation of shareholder wealth or the value of a company. With a formula like this:

$$ROE = ROI \times EM$$

4. Financial Ratio Standards

According (Kasmir, 2010), in assessing financial performance using ratio analysis, it is necessary to know the standard of the financial ratios. This standard is determined by comparing several financial ratios of similar companies. The following is the Industry Average to assess the financial performance of a company:

Table 1. Financial Ratio Standards

No.	Financial Ratio	Industry Average
1.	Solvency Ratio	
	Current Ratio	200% (2:1)
	Fast Ratio	1.5 times
	Cash Ratio	50%
	Cash Turnover Ratio	10%
2.	Inventory to Networking Capital	12%
	Solvency Ratio	
	Debt Ratio	35%
3.	Debt to Equity Ratio	80%
	Activity Ratio	
	Accounts Receivable Turnover	15 days
	Inventory Turnover	19 days
4.	Working Capital Turnover	6 times
	Total Asset Turnover	2 times
	Profitability Ratio	
	Net Profit Margin	20%
	Return On Investment	30%
	Return On Equity	40%

1.2 Research Framework

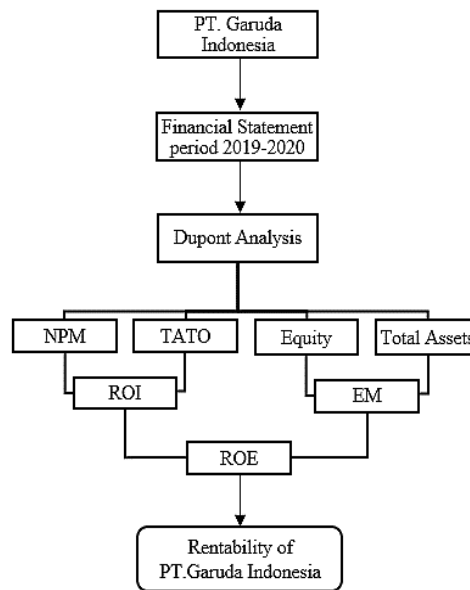


Figure 2. Research Concept Framework
Source: Author, data processed (2021)

2. Methodology

2.1 Research Approach

In this study the authors used descriptive research methods, with quantitative data. Descriptive method is a method used to analyze data by describing or describing the data that has been collected as it is without intending to make generally accepted conclusions or generalizations.(Sugiyono, 2013). While quantitative means collecting data in the form of numbers or data in the form of words or sentences that are converted into data in the form of numbers. The data in the form of these numbers will then be processed and analyzed to obtain scientific information behind these numbers.

2.2 Population and Sample

The population is the whole of the research subject, where individuals have the same characteristics even though the percentage of similarity is small, in other words all individuals who will be used as research objects (Arikunto, 2013). This research population is the Aviation Industry Sector, with a sample of PT. Garuda Indonesia.

2.3 Data analysis technique

The data analysis technique used in this research is quantitative data analysis techniques, namely the analysis of financial data which includes the balance sheet and the company's income statement. The steps taken by researchers are as follows:

- 1) Collecting financial data of PT. Garuda Indonesia (Persero) Tbk obtained from www.idx.com namely the Indonesia Stock Exchange (IDX) and www.garuda-indonesia.com .
- 2) Financial data classified according to need in the existing ratio formula.
- 3) Simplify the required financial data by using tables from the period 2019 – 2020.
- 4) Enter financial data that has been classified into each of the formulas that have been determined using the Dupont method.
- 5) Conducting financial profitability analysis for the period 2019-2020 based on the results obtained from existing formulas.

3. Result and Discussion

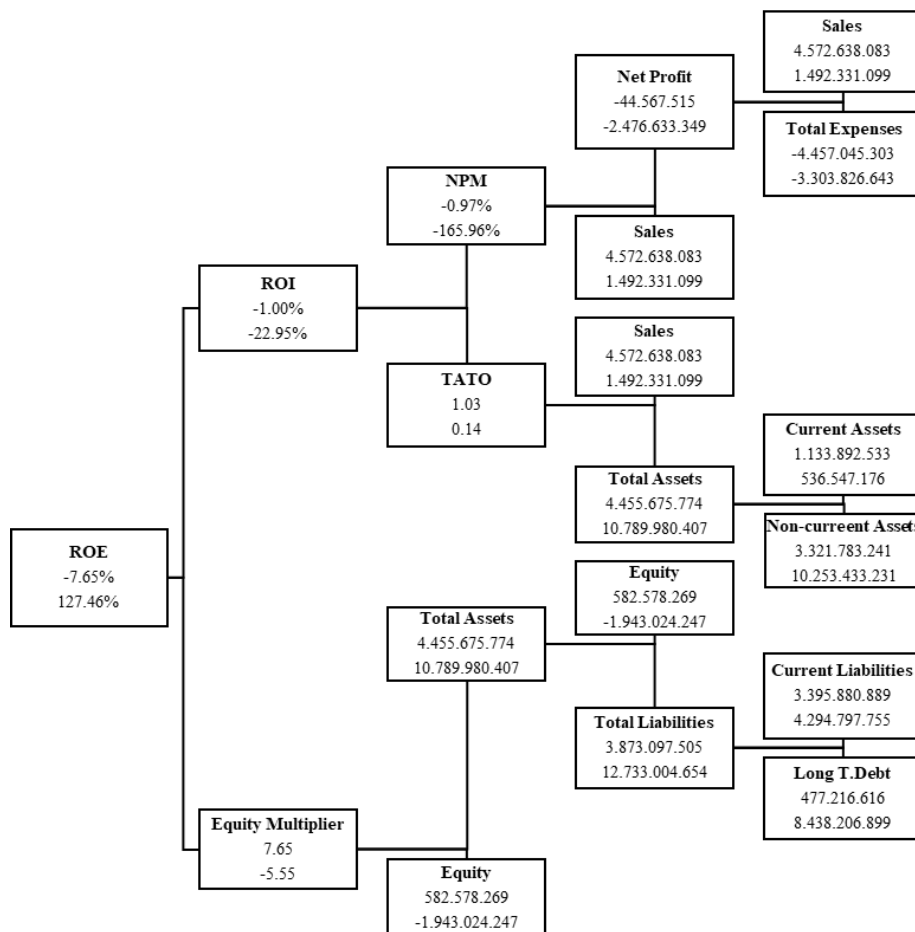
The following is the data on the financial statements of PT. Garuda Indonesia (Persero) Tbk in 2019-2020 required in the analysis using Dupont :

Table 2. Financial Statements of PT. Garuda Indonesia

Description	Year ended December 31	
	2019	2020
Current Assets	1.133.892.533	536.547.176
Non-current Assets	3.321.783.241	10.253.433.231
Total Asset	4.455.675.774	10.789.980.407
Total Equity	582.578.269	-1.943.024.247
Sales	4.572.638.083	1.492.331.099
Net Profit	-44.567.515	-2.476.633.349
Total Liabilities	3.873.097.505	12.733.004.654
Current Liabilities	3.395.880.889	4.294.797.755
Non-current Liabilities	477.216.616	8.438.206.899
Total Profit before tax	1.235.153	-2.603.049.577
Total Liabilities & Equity	4.455.675.774	10.789.980.407
Total Expenses	4.457.045.303	3.303.826.643

Source: Author, data processed (2021)

1) Dupont Analysis 2019-2020


 Picture 3. Dupont Analysis PT. Garuda Indonesia period 2019-2020
 Source: Author, data processed (2021)

Based on the results of this study, it can be seen that there is a relationship between the five ratios combined in the Dupont Method. From charts it can be seen that the declined in net profit margin, total assets turnover, equity multiplier, return on investment and return on equity. In addition, the five ratios have not been able to reach the industry average standart already set. According to Dupont charts, return on equity is affected by return on investment and equity multiplier. Where if the return on investment increases and the equity multiplier increases, the return on equity will also increase but, if one of the two elements decreases, the return on equity will alsodecrease. While return on investment is influenced by both net profit margin and total assets turnover. Where will return on equity be change if there is a change in net profit margin or totale assets turnover either each or both (Munawir, 2004). With this, research results Dupont Method at PT. Garuda Indonesia it can be explained that :

2) Net Profit Margin (NPM)

Table 3. Net Profit Margin

Year	EAT	Sales	Industry Average	NPM	Change
2019	-44.567.515	4.572.638.083	20%	-0.97%	-
2020	-	1.492.331.099		-	-164.98%
	2.476.633.349			165.96%	

Table 4. Calculation Net Profit Margin

Year	Net Profit	Change %	Revenue	Change %	Total Exp.	Change %
2019	-44.567.515	-	4.572.638.083	-	4.457.045.303	-
2020	-	5457.04%	1.492.331.099	-67.36%	3.303.826.643	-25.87%
	2.476.633.349					

In 2020, the NPM value decreased drastically when compared to 2019, which was -0.97% to -165.96%. The decrease in NPM that occurred in this company was due to a net loss in 2020. The net loss was Rp--2.476.633.349,- decreased 5457.04% due to the total cost that experienced a change of -25.87%. Likewise, revenue decreased by -67.36% to Rp 1.492.331.099,- from Rp 4.572.638.083,- in 2019. This valuemans that the company is not able to increase its sales volume or reduce operating costs to achieve profit. So that finally the company suffered a loss in 2020 which caused a decrease in the value of NPM. The decrease in NPM that occurs shows that the company is less effective in carrying out operational activities because it is not yet efficient in reducing existing costs. So that in 2019 there was a net profit difference that was far from 2020 which resulted in a net loss. So the research shows that PT. Garuda Indonesia is not good enough in generating net profit from the level of sales.

3) Total Assets Turnover (TATO)

Table 5. Total Asset Turnover

Year	Sales	Total Asset	Industry Average	TATO	Change
2019	4.572.638.083	4.455.675.774	2x	1.03	-
2020	1.492.331.099	9.392.106.273		0.14	-0.89

Table 6. Calculation Total Asset Turnover

Year	Revenue	Change %	Total Assets	Change %
2019	4.572.638.083	-	4.455.675.774	-
2020	1.492.331.099	-67.36%	10.789.980.407	142.16%

In 2020, the value of TATO decreased by -0.89 times, which is 0.14 times compared to 2019. From table 6 above, it can be seen that this decrease occurred due to the income which decreased by -67.36% to Rp. 1.492.331.099,- compared to Rp. 4.572.638.093,- in 2019. Likewise with total assets which increased by 142.16%, namely Rp. 10.789.980.407,- In 2020 compared to Rp. 4.455.675.774,- in 2019. The value of TATO is 0.14 times, this is the lowest value where the company cannot afford achieve 1x asset turnover.

This value also states that the company is not able to achieve the appropriate income because it is due to the large number of total assets owned compared to the income achieved. So the research shows that PT. Garuda Indonesia has a slow asset turnover due to the large amount of total assets compared to the company's ability conduct business in achieving revenue.

4) Equity Multiplier

Table 7. Equity Multiplier

Year	Total Asset	Total Equity	Industry Average	Equity Multiplier	Change
2019	4.455.675.774	582.578.269	-	7.65	-
2020	10.789.980.407	-1.943.024.247		-5.55	-13.20

Table 8. Calculation Equity Multiplier

Year	Total Assets	Change %	Total Equity	Change %
2019	4.455.675.774	-	582.578.269	-
2020	10.789.980.407	142.16%	-1.943.024.247	-333.52%

The table above shows that the Equity Multiplier (EM) has decreased by -13.20 in 2020, which is -5.55. This is due to an increase in assets owned by the company by 142.16% from Rp. 4.455.675.774, - to Rp. 10.789.980.407.- On the other hand, Equity decreased drastically from a positive number of Rp. 582.578.269,- to a negative number of Rp. -1.943.024.247,- So the research shows that PT. Garuda Indonesia assets owned by the company is greater than equity. Means company has suffered losses and taken on a large enough debt to keep the business running.

5) Return on Investment (ROI)

Table 9. Return on Investment

Year	NPM	TATO	Industry Average	ROI	Change
2019	-0.97%	1.03	30%	-1.00%	-
2020	-165.96%	0.16		-22.95%	21.95%

Table 10. Calculation Return on Investment

Year	NPM	Change %	TATO	Change %
2019	-0.97%	-	1.03	-
2020	-165.96%	-165%	0.14	-0.89

In the table above, it can be seen that the ROI decreased by -21.95% in 2020, namely -22.95%. The decline was motivated by a drastic decline in the value of NPM by -165%, namely -165.96% which was due to a decrease in the company's net loss because revenue was smaller than its operating costs. Likewise with TATO which decreased by -0.89 times to 0.14 times in 2020. This TATO also experienced a decline due to the ratio of income which was smaller than the total assets owned by the company. The decrease in NPM and TATO also affects the decrease in ROI. So the research shows that PT. Garuda Indonesia experienced a decline that occurred due to net losses and decreased as well as slow total asset turnover in achieving operating income. This shows that the company's performance is poor because the industry average standard is 30%, main the company has not been able to manage its assets and generate profits to achieve a return on investment that has been invested that's why it is still below standard.

6) Return on Equity (ROE)

Table 11. Return on Equity

Year	ROI	Equity Multiplier	Industry Average	ROE	Change
2019	-1.00%	7.65	40%	-7.65%	-
2020	-22.95%	-5.55		127.46%	135.11%

Table 12. Calculation Return on Equity

Year	ROI	Change %	Equity Multiplier	Change %
2019	-1.00%	-	7.65	-
2020	-22.95%	-21.95%	-5.55	-13.20

The table above shows that ROE increase by 135.11% namely. 127.46% in 2020 compared to -7.65% in 2019. Which means the company is loss, it can be seen that the ROI decreased by -21.95% due to a decrease in the low NPM due to a loss of -Rp 2.476.633.349,- and slow asset turnover (TATO) which is only 0.14 times. Likewise, the company's Equity Multiplier decreased to -13.20, which is -5.55 times. Small total assets compared to the total equity owned by the company greatly affects the ROE value. It is clear that the decline in ROE is accompanied by a decrease in the ROI ratio and the Equity Multiplier. So the research shows that PT. Garuda Indonesia has a very high and unfavorable performance because the industry standart set for 40%. This very high ROE value greatly affects various management parties, both internal and external, such as interested investors and all those who have an interest in reading the company's financial statements.

4. Conclusion

Based on the results of research and discussion that have been carried out on the Report Finance PT. Garuda Indonesia in 2019-2020, it can be concluded that :

- 1) Rentability PT. Garuda Indonesia's ratio of Return on Equity (ROE) has increased from 2019-2020, which means that the company is indicated to be at risk and is making a loss. This high number is influenced by the decline in the Equity Multiplier and also the company's Return on Investment (ROI). The declining equity multiplier was due to a decrease in the company's total equity, which tends to be smaller than the growth in total assets owned. The increase in total assets was due to the high value of liabilities. The more debt the company has, the lower its equity will be. Likewise, the decline in the value of ROI is influenced by a decrease in the ratio of the company's Net Profit Margin (NPM) and Total Asset Turnover (TATO).
- 2) In the Dupont chart, it can be seen that the decrease in Net Profit Margin (NPM) was caused by a net loss accompanied by lower income compared to the total costs incurred to achieve the targeted sales. Meanwhile, the company's Total Asset Turnover (TATO) also decreased and its asset turnover was so slow that it did not reach one turnover. This happens because there is a small comparison of income compared to ownership of a larger total asset.
- 3) By applying rentability analysis using the Dupont method, it can be said that the management of PT. Garuda Indonesia has not succeeded in improving its financial performance properly. The management can be said to have not been able to manage the total assets and equity owned by the company to get the rate of return to be achieved with the appropriate sales volume in order to obtain sustainable income with a net profit target after deducting the total costs and corporate taxes

References

- Arikunto, S. (2013). *Prosedur Penelitian: Suatu Pendekatan Praktik*. Rineka Cipta.
- Brigham | Houston. (2018). *Dasar-Dasar Manajemen Keuangan*. Salemba Empat.
- Carlo Perosi Fau. (2019). Analisis Kinerja Keuangan PT. Garuda Indonesia Tbk Tahun 2014-2018. *Jurnal Riset Manajemen Dan Bisnis Vol. 4 Np. 1 Februari 2019*.
- Darsono dan Ashari. (2010). *Pedoman Praktis Memahami Laporan Keuangan (8th ed.)*.
- Dedi Kusmayadi. (2008). Analisis Profit Margin, Total Asset Turnover, dan Equity Multiplier.
- Hanafi Mamduh M Abdul Halim. (2002). *Analisis Laporan Keuangan (4th ed.)*.
- Harahap, S. S. (2015). *Analisis Kritis Atas Laporan Keuangan*. Rajawali Pers.
- Hery. (2015). *Analisis Laporan Keuangan (1st ed.)*.
- Inge Barlian. (2003). *Manajemen Keuangan*. Literata Lintas, Media.
- Kurniasari Dwi Pratiwi. (2020). Penilaian Kinerja Keuangan Menggunakan Analisis Dupont PT. Garuda Indonesia (Persero) Tbk 2015-2018. *Jurnal Ekonomi Dan Manajemen, Universitas Muhammadiyah Surakarta*.
- Munawir, S. (2007). *Analisa Laporan Keuangan (4th ed.)*.
- Rudianto. (2013). *Pengantar Akuntansi Manajemen*.
- Sahni Jasriani. (2016). Analyzing the Financial Performance of Pt. Garuda Indonesia By Using Dupont Analysis (Period 2011 Å 2015). *Jurnal Berkala Ilmiah Efisiensi*, 16(4), 396–406.
- Sugiyono. (2013). *Metodologi Penelitian Kuantitatif, Kualitatif dan R&D*.
- Sutrisno. (2003). *Manajemen Keuangan Teori, Konsep dan Aplikasi*.

Tindige, J. W., Rogahang, J., & Mangindaan, J. (2020). Kinerja Keuangan pada PT . Garuda Indonesia (Persero) Tbk Ditinjau dari Rasio Profitabilitas. *Productivity*, 1(3), 203–207.

Biographies

Ismi Khoirunnisa is a student of Narotama University, Surabaya, Indonesia. Majoring in Finance Management, Departement of Management, Faculty of Economics and Business.

R. Agus Baktiono was born in Pasuruan and studied in the Bachelor of Economics Program at Narotama University graduating in 1986, further studies in the Master of Management program, graduating in 2002 at Narotama University, Surabaya. His career in education began in 1985 as an assistant lecturer, and at this time has won the academic position of Head Lector, certified lecturer and assessor of LKD serdos, as well as internal auditor for Higher Education Quality Assurance. In addition, since 1989 he has been active in various professional organizations, including ISEI, REI, as a management expert at various Consultants, structural positions he has held in the field of education, among others as Head of the Department.

Muchamad Arif is a lecturer at Narotama University, Surabaya, Indonesia. He is also as Head of Narotama Language Center at Universitas Narotama, Surabaya, Indonesia. He got a master's degree in English Education from Unika Widya Mandala, Surabaya, Indonesia.