

# Analyzing Profitability Ratios as a Tool to Assess Financial Performance

Loso Judijanto

IPOSS, Jakarta, Indonesia

Author correspondence: [losojudijantobumn@gmail.com](mailto:losojudijantobumn@gmail.com)

**Abstract.** *This research examines the financial performance of PT Astra International Tbk during the period 2020-2023 through comprehensive profitability ratio analysis. The study employs multiple financial metrics including Return on Assets (ROA), Return on Equity (ROE), Net Profit Margin (NPM), Gross Profit Margin (GPM), and Operating Profit Margin (OPM) to evaluate the company's operational efficiency and profitability. Through quantitative analysis with a descriptive approach, this study reveals that PT Astra International demonstrated resilient financial performance despite challenging market conditions. The findings indicate average ROA of 8.05%, suggesting moderate asset utilization efficiency. The company maintained a healthy ROE averaging 13.92%, though below industry benchmarks, while achieving a stable GPM of 22.6% and OPM of 15.06%, reflecting effective cost management and operational efficiency. These results provide valuable insights for stakeholders and contribute to understanding the automotive sector's financial dynamics in Indonesia.*

**Keywords:** *Net Profit Margin, Return On Asset, Return On Equity*

## 1. INTRODUCTION

The evolution of Indonesia's economic landscape over the past several decades presents a compelling narrative of transformation and growth, particularly exemplified in the journey of PT Astra International Tbk. This transformation emerges against the backdrop of significant global and regional economic shifts, where Indonesia has positioned itself as a key player in the Southeast Asian economic corridor. The period from 2020 to 2023 marks a particularly crucial phase in this evolution, characterized by unprecedented challenges and remarkable adaptations in corporate strategy and operations.

The Indonesian economy's trajectory has been marked by several distinct phases of development, each contributing to the current economic framework within which PT Astra International operates. The early stages of industrialization in the 1970s and 1980s laid the groundwork for what would become a robust manufacturing and service sector. This foundation proved crucial during the economic challenges of the late 1990s and early 2000s, where companies like PT Astra International demonstrated remarkable resilience and adaptability.

The automotive sector, in particular, has emerged as a key indicator of Indonesia's economic maturity and potential. As the largest economy in Southeast Asia, Indonesia's automotive market represents a crucial battleground for both domestic and international manufacturers. PT Astra International's position within this competitive landscape offers

unique insights into the interplay between corporate strategy, market dynamics, and economic development.

The period under study (2020-2023) encompasses several critical phases in both global and Indonesian economic history. The onset of the COVID-19 pandemic in early 2020 triggered unprecedented challenges across all economic sectors. For PT Astra International, this period necessitated rapid adaptation in business models, operational procedures, and strategic planning. The company's response to these challenges, reflected in its financial performance metrics, provides valuable insights into corporate resilience and adaptive capacity in times of crisis.

The post-pandemic recovery phase, beginning in late 2021 and extending through 2023, presented its own unique set of challenges and opportunities. Supply chain disruptions, changing consumer behaviors, and the acceleration of digital transformation initiatives all played crucial roles in shaping corporate strategy and performance. PT Astra International's navigation of these challenges reflects broader trends in corporate adaptation and evolution in the face of rapid change.

The company's historical role in Indonesia's economic development adds another layer of significance to this analysis. Since its establishment in 1957, PT Astra International has grown beyond its initial focus on automotive distribution to become a diversified conglomerate with interests spanning multiple sectors. This evolution mirrors Indonesia's own economic development, making the company's performance a valuable indicator of broader economic trends and conditions.

The period under study also coincides with significant shifts in global automotive industry dynamics. The increasing emphasis on sustainable mobility solutions, electric vehicles, and digital integration in automotive products has created both opportunities and challenges for traditional industry players. PT Astra International's response to these trends, as reflected in its financial performance, provides insights into how established companies can adapt to disruptive industry changes while maintaining financial stability.

The socioeconomic context of this period adds another dimension to the analysis. Indonesia's growing middle class, changing consumer preferences, and increasing environmental awareness have all influenced market dynamics and corporate strategy. PT Astra International's ability to navigate these changing demographic and social trends while maintaining profitability offers valuable lessons in corporate adaptation and strategic planning.

The regulatory environment during this period also played a crucial role in shaping corporate performance. Government policies related to industrial development, environmental protection, and economic recovery from the pandemic all influenced corporate strategy and

operational decisions. PT Astra International's ability to maintain profitability while adapting to changing regulatory requirements demonstrates the importance of regulatory compliance in sustainable business growth.

This background sets the stage for a detailed analysis of PT Astra International's financial performance during a period of significant change and challenge. The company's experience during this time provides valuable insights into corporate resilience, strategic adaptation, and sustainable growth in an evolving economic landscape. The lessons drawn from this analysis have implications not only for corporate strategy but also for our understanding of economic development and business adaptation in emerging markets. There are 5 decision stages that run continuously until the best investment is achieved, namely: determination of investment objectives, determination of investment policy, selection of portfolio strategy, asset selection, measurement and evaluation of portfolio performance. Decision making should be based on rationality. Rational decision making means making decisions using logical considerations and approaches. In reality, investors sometimes make irrational decisions so that the market becomes inefficient (Rasid & Hafizi, 2022). As an investor, it is important to analyze the company's financial condition, business performance, and growth perspectives and always update the development of the automotive industry and economic factors that can affect the company's performance. Where we can see its revenue and net profit as follows:

**Table 1**  
**Net profit and revenue data of PT Astra International Tbk 2020-2023**  
(Expressed in billions of Rupiah)

Year	Net Profit	Revenue	Percentage
2020	18.571	175.046	10,60%
2021	25.586	233.485	10,95%
2022	40.420	301.379	13,41%
2023	44.501	316.565	14,05%

Source: Annual Report PT. Astra International Tbk.

Based on the table data above, the Percentage of Net Income to Revenue of PT Astra International has increased every year. In 2020 the Percentage is 10.60% which increases in 2021 by 10.95%, in 2022 by 13.41%, in 2023 14.05% because every year Net Income and Revenue continue to increase.

PT Astra International Tbk (ASII) was established in Jakarta in 1957 as a general trading company under the name Astra International Inc. The Astra Group is one of Indonesia's largest companies listed on the Indonesia Stock Exchange since 1990. With a diverse business the Group's products and services have touched the daily lives of Indonesians, from motorcycles and cars, toll roads, printing and digital services, to financing and insurance

services. PT Astra International Tbk's products and services consist of Automotive, Financial Services, Heavy Equipment, Agribusiness, Infrastructure, Information Technology, and Property. The high development of the Automotive industry has attracted new players leading to an increasing number of car players and brands in Indonesia. However, Astra is not too worried because 50% dominates the development sector of the Automotive industry (Rachmawati & Rismayani, 2019).

Based on the table data above, it can show that the net profit and revenue of PT Astra International in each year are different or fluctuating due to various internal and external factors such as the impact of Covid-19, Industry Competition and Investment which can decrease or increase the assets of a Company. Therefore, the purpose of this research is to learn more about profitability ratio analysis which will be used to evaluate the financial performance of PT Astra International Tbk from 2020-2023.

## **2. LITERATURE REVIEW**

The examination of corporate financial performance has been a central focus in business and economic research, with scholars developing increasingly sophisticated frameworks for analysis and interpretation. According to recent studies, financial performance analysis serves as a cornerstone for evaluating corporate health and sustainability in dynamic market environments. The literature surrounding financial performance analysis has evolved significantly over the past decades, incorporating both traditional metrics and modern analytical approaches.

Financial statements, as fundamental tools for performance evaluation, provide critical insights into a company's operational efficiency and strategic effectiveness. Research by financial scholars emphasizes the importance of comprehensive analysis that goes beyond simple numerical interpretation. The work of Elisabet & Putra (2022) highlights how financial analysis must consider both internal capabilities and external market conditions to provide meaningful insights into corporate performance.

The development of profitability analysis frameworks has seen significant evolution, with researchers identifying various key metrics that provide comprehensive insights into corporate performance. Traditional profitability ratios, including Return on Assets (ROA), Return on Equity (ROE), and various profit margins, remain fundamental tools in financial analysis. However, modern research suggests these metrics must be considered within broader contextual frameworks that account for industry-specific factors and market conditions.

Recent studies have particularly emphasized the importance of integrating multiple analytical approaches. The work of Dewi et al. (2020) demonstrates how combining various financial ratios can provide more nuanced insights into corporate performance than single-metric analyses. Their research shows that profitability ratios, when analyzed in conjunction with market ratios, offer more comprehensive understanding of a company's financial health and market position.

The literature also addresses the crucial role of industry standards in financial analysis. Studies indicate that meaningful performance evaluation requires careful consideration of sector-specific benchmarks and competitive dynamics. This is particularly relevant in the automotive sector, where complex supply chains and capital-intensive operations significantly impact financial metrics.

Contemporary research has increasingly focused on the relationship between financial performance and operational efficiency. Scholars have identified strong correlations between operational metrics and financial outcomes, suggesting that sustainable financial performance requires excellent operational management. This connection is particularly evident in studies of automotive industry companies, where operational efficiency directly impacts profitability metrics.

The evolution of financial analysis has also incorporated considerations of risk management and sustainability. Modern frameworks emphasize the importance of evaluating financial performance within the context of risk exposure and long-term sustainability metrics. This holistic approach provides more meaningful insights into corporate performance and future prospects.

The literature surrounding profitability ratio analysis has established several key principles:  
Profitability ratios must be evaluated within industry-specific contexts

Multiple ratio analysis provides more reliable insights than single-metric evaluation  
Temporal analysis reveals important trends and patterns in corporate performance  
External factors significantly impact ratio interpretation  
Operational efficiency directly influences profitability metrics

Recent studies have also highlighted the importance of considering market dynamics in financial analysis. Research indicates that market conditions, competitive forces, and economic cycles significantly impact financial performance metrics. This understanding has led to more sophisticated analytical frameworks that incorporate both internal and external factors in performance evaluation.

Scholars have also emphasized the role of corporate governance in financial performance. Studies suggest that governance structures and management practices significantly influence profitability metrics. This relationship is particularly evident in large corporations where complex organizational structures require effective governance mechanisms to maintain operational efficiency and financial performance.

Profitability ratios represent key metrics for assessing a company's.

#### Industry Standard Profitability Ratio

To find out the financial performance of a company, it is not enough to calculate the profitability ratio alone but requires an industry standard to be used as a reference.

**Table 2**  
**Profitability Ratio Industry Standard**

Type Of Ratio	Industry standard
Return On Asset	More than 40% excellent
	30% good
	less than 20% is not good.
Return On Equity	More than 40% excellent
	40% good
	less than 25% not good
Gross Profit Margin	More than 30% excellent
	28% good
	less than 28% not good
Net Profit Margin	More than 20% excellent
	28% good
	less than 28% not good
Operating Profit Margin	More than 23% excellent
	23% good
	less than 10% not good

Source: (Hery, 2018)

### 3. METHODS

This study employs a quantitative research methodology with a descriptive analytical approach. The research design focuses on systematic evaluation of financial data to provide comprehensive insights into PT Astra International's performance. The approach involves detailed analysis of financial statements, ratio calculations, and trend analysis across the study period 2020-2023.

#### 4. RESULTS

The following is a summary of the financial statement data needed to calculate the profitability ratio of PT Astra International Tbk. 2020-2023 in table 3.

**Table 3**  
**Summary of Financial Statement Data of PT Astra International Tbk. 2020-2023**  
(Expressed in billions of rupiah)

Year	Net Profit	Total Asset	Total Equity	Sales	Gross Profit	Operating Profit
2020	Rp18.571	Rp338.203	Rp195.454	Rp175.046	Rp38.778	Rp21.741
2021	Rp25.586	Rp367.311	Rp215.615	Rp233.485	Rp51.033	Rp32.350
2022	Rp40.420	Rp413.297	Rp243.720	Rp301.379	Rp70.088	Rp50.390
2023	Rp44.501	Rp445.679	Rp250.418	Rp316.565	Rp73.310	Rp54.729

Source: Annual Report PT. Astra Internatiol Tbk.

#### Return On Asset (ROA)

The following is the calculation of the Return On Asset ratio for the last five years, namely from 2020 to 2023 at PT Astra Innernational Tbk. 2020-2023.

**Table 4**  
**Return On Asset of PT Astra International Tbk. 2020-2023**  
(Expressed in billions of rupiah)

Year	Net Profit (a)	Total Asset (b)	Ratio (a/b) x100%
2020	Rp18.571	Rp338.203	5,49%
2021	Rp25.586	Rp367.311	6,96%
2022	Rp40.420	Rp413.297	9,77%
2023	Rp44.501	Rp445.679	9,98%

Source: Data processed, 2024

With Formula:

$$ROA = \text{Return On Asset} = \frac{\text{Earning after tax}}{\text{Total Asset}} \times 100\%$$

$$\text{Year 2020} = \frac{\text{Rp18.571}}{\text{Rp338.203}} \times 100\% \\ = 5,49\%$$

$$\text{Year 2021} = \frac{\text{Rp25.586}}{\text{Rp367.311}} \times 100\% \\ = 6,96\%$$

$$\text{Year 2022} = \frac{\text{Rp40.420}}{\text{Rp413.297}} \times 100\% \\ = 9,77\%$$

$$\text{Year 2023} = \frac{\text{Rp44.501}}{\text{Rp445.679}} \times 100\% \\ = 9,98\%$$

#### Return On Equity (ROE)

The following are the results of the calculation of the Return On Equity Ratio for five years in 2020 to 2024 at PT Astra International Tbk. In table 5

**Table 5**  
**Return On Equity PT Astra International Tbk 2020-2023**  
(Expressed in billions of rupiah)

Year	Net Profit (a)	Total equity (b)	Ratio (a/b) x100%
2020	Rp18.571	Rp195.454	9,50%
2021	Rp25.586	RP215.615	11,86%
2022	Rp40.420	Rp243.720	16,58%
2023	Rp44.501	Rp250.418	17,77%

Source: Data processed, 2024

With Formula:

$$ROE = \frac{\text{Earning After Tax}}{\text{Total Equity}} \times 100\%$$

$$\text{Year 2020} = \frac{\text{Rp18.571}}{\text{Rp195.454}} \times 100\% = 9,50\%$$

$$\text{Year 2021} = \frac{\text{Rp25.586}}{\text{Rp215.615}} \times 100\% = 11,86\%$$

$$\text{Year 2022} = \frac{\text{Rp40.420}}{\text{Rp243.720}} \times 100\% = 16,58\%$$

$$\text{Year 2023} = \frac{\text{Rp44.501}}{\text{Rp250.418}} \times 100\% = 17,77\%$$

### Gross Profit Margin (GPM)

The following are the results of the calculation of the Gross Profit Margin Ratio for five years in 2020 to 2024 at PT Astra International Tbk. In table 6

**Table 6**  
**Gross Profit Margin of PT Astra International Tbk 2020-2023**  
(Expressed in billions of rupiah)

Year	Gross Profit (a)	Sales (b)	Ratio (a/b) x100%
2020	Rp38.778	Rp175.046	22,15%
2021	Rp51.033	Rp233.485	21,85%
2022	Rp70.088	Rp301.379	23,25%
2023	Rp73.310	Rp316.565	23,15%

Source: Data processed 2024

With Formula:

$$GPM = \frac{\text{Earning Befor Interest and Tax}}{\text{Sales}} \times 100\%$$

$$\text{Year 2020} = \frac{\text{Rp38.778}}{\text{Rp175.046}} \times 100\% = 22,15\%$$

$$\text{Year 2021} = \frac{\text{Rp51.033}}{\text{Rp233.485}} \times 100\% = 21,85\%$$

$$\text{Year 2022} = \frac{\text{Rp70.088}}{\text{Rp301.379}} \times 100\% = 23,25\%$$

$$\text{Year 2023} = \frac{\text{Rp73.310}}{\text{Rp316.565}} \times 100\% = 23,15\%$$

### Net Profit Margin (NPM)

The following are the results of the calculation of the Net Profit Margin Ratio for five years in 2020 to 2024 at PT Astra International Tbk. In table 7

**Table 7**  
**Net Profit Margin of PT Astra International Tbk 2020-2023**  
(Expressed in billions of rupiah)

Year	Net Profit (a)	Sales (b)	Ratio (a/b) x100%
2020	Rp18.571	Rp175.046	10,60%
2021	Rp25.586	Rp233.485	10,95%
2022	Rp40.420	Rp301.379	13,41%
2023	Rp44.501	Rp316.565	14,05%

Source: Data processed, 2024



With Formula:

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

$$\text{Year 2020} = \frac{\text{Rp18.571}}{\text{Rp175.046}} \times 100\% = 10,60\%$$

$$\text{Year 2021} = \frac{\text{Rp25.586}}{\text{Rp233.485}} \times 100\% = 10,95\%$$

$$\text{Year 2022} = \frac{\text{Rp40.420}}{\text{Rp301.379}} \times 100\% = 13,41\%$$

$$\text{Year 2023} = \frac{\text{Rp44.501}}{\text{Rp316.565}} \times 100\% = 14,05\%$$

### Operating Profit Margin (OPM)

The following are the results of the calculation of the Operating Profit Margin Ratio for five years in 2020 to 2024 at PT Astra International Tbk. In table 8

**Table 8**  
**Operating Profit Margin of PT Astra International Tbk 2020-2023**  
(Expressed in billions of rupiah)

Year	Operating Profit (a)	Sales (b)	Ratio (a/b) x100%
2020	Rp21.741	Rp175.046	12,42%
2021	Rp32.350	Rp233.485	13,85%
2022	Rp50.390	Rp301.379	16,71%
2023	Rp54.729	Rp316.565	17,28%

Source: Data processed, 2024

With Formula:

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

$$\text{Year 2020} = \frac{\text{Rp21.741}}{\text{Rp175.046}} \times 100\% = 12,42\%$$

$$\text{Year 2021} = \frac{\text{Rp32.350}}{\text{Rp233.485}} \times 100\% = 13,85\%$$

$$\text{Year 2022} = \frac{\text{Rp50.390}}{\text{Rp301.379}} \times 100\% = 16,71\%$$

$$\text{Year 2023} = \frac{\text{Rp54.729}}{\text{Rp316.565}} \times 100\% = 17,28\%$$

## 5. CONCLUSION

Based on the calculations and analysis, it can be concluded that the financial performance of PT Astra International Tbk from 2020 to 2023, as measured by profitability ratios, shows that the ROA was 5.49% in 2020, rose to 6.96% in 2021, increased to 9.77% in 2022, and slightly improved to 9.98% in 2023. It is known that the average Return On Asset is 8.05% with a Ratio that is less than the industry standard which indicates poor financial performance. In the year 2020, PT Astra International's ROE was 9.50%, in the year 2021 it was 11.86%, experienced a slight increase to 16.58% in the year 2022 and 17.77% in the year 2023. Based on the findings of these calculations, it is known that the average Return On Equity is 13.92% with a Ratio that is less than the industry standard which indicates that financial

performance is not good. In the year 2020, PT Astra International's GPM was 22.15%, in the year 2021 it was 21.85%, in the year 2022 it was 23.25%, and in the year 23.15%. Based on the findings of these calculations, it is known that the average Gross Profit Margin is 22.6% with a Ratio that is less than the industry standard which indicates that financial performance is not good. In year 2020 the NPM was 10.60%, in year 2021 it was 10.95%, in year 2022 it increased to 13.41%, and in year 2023 it was 14.05%. Based on the findings of these calculations, it is known that the average Net Profit Margin is 12% with a standard ratio that is not too low, which indicates that financial performance is good. In 2020 the OPM was 12.42%, in 2021 it was 13.85%, in 2022 it increased to 16.71%, and in 2023 it was 17.28%. Based on the findings of these calculations, it is known that the average Operating Profit Margin is 15.06% with a ratio that is not too low, which indicates that financial performance is good.

To enhance its financial performance, PT Astra International should invest in employee training and development. By increasing employee competence, the quality of work and innovation can increase, which contributes to an increase in NPM and GPM. Reducing waste and increasing productivity through the use of the latest technology and organizational restructuring can help save costs. This will have a positive impact on operational profit margin (OPM) and gross profit margin (GPM). In addition, the company must be able to manage costs effectively and efficiently so that it can obtain a high enough Net Profit. The company must be able to reduce production costs and maintain revenue so that it continues to increase or does not decrease so that the gross profit margin percentage increases, because with the increase in gross profit margin the company can be said to have more value than other similar companies.

The author's suggestion for further researchers is to compare the profitability ratio between companies in the same sector which can provide better insight into the company's competitive position. It also helps in understanding the factors that affect profitability in various industries.

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