DU PONT SYSTEM ANALYSIS IN MEASURING COMPANY FINANCIAL PERFORMANCE (CASE STUDY OF BANK CENTRAL ASIA AND BANK RAKYAT INDONESIA PERIOD 2021-2023)

Rani Fitria *[1]
Putri Melani [2]
Wiwik Apriani [3]
Dwi Saraswati [4]

[1,2,3,4] Accounting Study Program, Faculty of Social Sciences, Panca Budi Development University, Indonesia
*e-mail: fitriarani092@gmail.com[1], pm194294@gmail.com[2], wapriani57@gmail.com[3]
dwisaraswati@dosen.pancabudi.ac,id[3]

Abstract

The two largest banks in Indonesia are Bank Central Asia (BCA) and Bank Rakyat Indonesia (BRI). The financial performance of both is a key indicator to assess the health and operational effectiveness of a bank. This study uses the DuPont Analysis approach to examine the financial performance of BCA and BRI. Secondary data from the annual financial statements of both banks for 2021–2023 are used in this investigation. In 2021– 2023, BCA's average net profit margin (NPM) was 61%, according to the study's findings, while BRI's NPM was 38%, increasing to 63% in 2023. When compared to the industry standard of 0.05-0.1, the TATO of both banks is in a reasonable range, with BRI showing a more productive performance. Meanwhile, the average return on equity (ROE) is 3%, higher than BRI's 2.5%. According to DuPont's analysis, BCA appears to be superior to BRI in terms of operational efficiency and profitability, as evidenced by its better NPM and ROE. For investors and bank management, among other stakeholders, these findings offer important insights into the dynamics of banks' financial performance and the potential impact of various initiatives on their bottom lines.

Keywords: *Dupont Analysis, Financial Performance, TATO, ROE, ROI, NPM, EM*

PENDAHULUAN

One of the industries that plays an important role in a country's economy is banking. Banks not only function as financial intermediaries, but also as drivers of economic growth through the provision of credit, savings management, and other financial services. The rapidly growing banking industry and its high complexity can affect financial performance in its business. In the banking industry, financial performance is the main indicator for assessing the health and effectiveness of a bank's operations. By examining a company's financial performance, one can assess its financial health. A company can grow and survive if its financial performance is strong. The company will also suffer significant losses if its financial performance is poor.

One of the main determinants of a company's success is its financial performance. One way to assess a company's financial success is to look at its financial statements. Bank financial statements, which contain details about the bank's performance, financial position, and changes in that position, can be used as a tool to assess its financial performance. (Parathon et al., 2013) . Financial statements according to (Fahmi, 2014) in (Anhar et al., 2022) are information that explains the condition of a company, which will then be used to show how well the organization is performing.

The banking sector plays an important role in supporting a country's economic growth. Bank Central Asia (BCA) and Bank Rakyat Indonesia (BRI) are the two largest banks in Indonesia that have different characteristics and business focuses. BCA is known as a private bank with advantages in digital banking services and its services to the corporate segment and middle to upper class consumers. Meanwhile, BRI stands out more with its role as a bank that supports micro, small, and medium enterprises (MSMEs), which are the backbone of the Indonesian economy. Although both have good performance, challenges such as regulatory changes, unstable global economic conditions, and the development of financial technology (fintech) require a more in-depth evaluation of financial performance.

The DuPont System model is a comprehensive method for examining financial performance. According to (Saraswati et al, 2015) in (Krisnaryatko & Kristianti, 2019) the Du Pont System is a business performance measurement technique that combines financial measures, namely profitability ratios and activity ratios. This approach not only provides an overview of the level of profitability (ROE) but also breaks down key components such as net profit margin, asset turnover, and equity multiplier. Return on Investment (ROI) can be used to assess whether a company's performance and condition have improved, worsened, or both (Lemiyana, 2015) in (Nurapiah et al., 2021) . The DuPont model helps reveal how operational efficiency, asset management, and financing policies affect the level of return to shareholders.

However, although the DuPont Model has been widely used in various industries, studies that specifically compare the financial performance of Bank Central Asia and Bank Rakyat Indonesia with this approach are still rare. Some of the issues that arise in this context are how the financial structure of each bank, such as net profit margin, asset efficiency, and use of leverage, impact their profitability. In addition, are there significant differences between the strategies implemented by the two banks in managing assets and capital, and how each bank utilizes resources to optimize their profits.

This research is very important to do because the results can provide great benefits to various parties. Investors, for example, can use the information from this analysis to make more accurate investment decisions. Bank management can also use the results of this study to identify weaknesses in their financial strategies and look for opportunities to improve performance. Meanwhile, regulators can use the results of this study as evaluation material in designing policies that support the stability and growth of the banking sector in Indonesia.

By analyzing the financial performance of BCA and BRI using the DuPont Model, this study is expected to provide insights that not only help both banks in increasing their competitiveness, but also contribute to the development of the Indonesian banking sector as a whole. Through this approach, it is expected that strategies will be found that can increase the efficiency, profitability, and competitiveness of national banking in an era of increasingly tight global competition.

THEORITICAL REVIEW

1. Understanding Financial Performance

According to (Saragih, 2013) Financial performance describes the financial condition of a company and is analyzed using financial analysis tools to identify positive and negative aspects of the company's financial situation, which is a reflection of work performance over a certain period of time. A company's ability to manage its resources effectively to achieve its stated goals is measured based on its financial performance . According to (Harahap, 2010) , Financial performance, which is usually assessed through financial statements, represents the results achieved by a business over a certain period of time. The main source of information for understanding a company's financial status is financial statements including cash flow, balance sheets, and income statements.

The objectives of financial performance research (Tobing & Simatupang, 2024) are:
1. The level of profitability of a company can be determined by looking at how profitable the company is over time.
2. A company's liquidity level can be evaluated by looking at its ability to pay bills on time or to pay commitments that need to be paid immediately.
3. The solvency level of a company can be determined by its capacity to meet its short-term and long-term financial obligations in the event of liquidation.
4. The level of company stability can be determined by the company's capacity to run its operations smoothly, namely paying interest on debt, repaying principal on schedule, and

paying dividends to shareholders regularly without experiencing problems or financial crises.

2. Financial Report Analysis

According to (Kurniasari & Santoso, 2023) Examining a company's financial statements using predetermined methods to gain a better understanding of its business situation is known as financial statement analysis. (Prayudah, 2015) in (Krisnaryatko & Kristianti, 2019) shows that the process of dividing financial statement components into smaller units of information to ensure financial position is known as financial statement analysis, management effectiveness, and business prospects. Management can use this information as a primary factor when making decisions that will ensure the company's existence.

The purpose of financial report analysis according to (Suhayati & Anggadini, 2009) in (Made et al., 2015) Users will find it useful in making financial decisions because it provides information on company performance, financial status, and changes in that status.

3. DuPont System Analysis

DuPont Corporation first used the DuPont System model, a financial analysis technique, in the 1920s. The Du Pont Company developed a financial analysis technique that was eventually considered useful by most Americans, and it was later called Du Pont analysis. (Lobo et al., 2022) . The Du Pont System is a technique for evaluating a business's financial performance that calculates the return on investment by multiplying the profitability ratio, or net profit margin, by the activity ratio, or total asset turnover (Sanjaya, 2017). The main focus of the Du Pont System is to calculate the components of a company's balance sheet and income statement. By looking at the financial statements, the Du Pont System analysis assesses the company's performance or situation. Financial health can be assessed using the Du Pont System analysis method. The main focus of the Du Pont system for performance evaluation is calculating the components that make up the company's income statement and balance sheet. The benefits and disadvantages of using the DuPont System method for financial statement analysis are discussed in (Harahap, 2018) and (Rabbani et al., 2023). One of the benefits is that management or users can determine how effectively a company uses its assets because DuPont's comprehensive financial analysis technique can determine the potential of a company's products by calculating the profitability of each product produced by the company.

4. Main Components of DuPont System

- **Net Profit Margin**

Evaluates the company's capacity to convert revenue into net income after deducting taxes, interest, and operating expenses. NPM reflects the company's operational efficiency and cost management. The formula is:

$$Net\ Profit\ Margin = \frac{\text{Laba Bersih}}{\text{Penjualan}}\ x100$$

Depending on the cost effectiveness and revenue structure of each bank, NPM for banks often falls between 20% and 30%. A low NPM may indicate problems in cost control, while a higher NPM indicates strong operational efficiency.

- **Asset Efficiency (Asset Turnover)**

A company's ability to generate revenue from its resources is measured by asset efficiency. This ratio shows how effectively a business supports its operational activities using its assets. The formula is:

$$Total\ Assets\ Turnover = \frac{\text{Penjualan Bersih}}{\text{Total Aset}}$$

Since the banking industry relies heavily on financial assets, TATO for banks is usually smaller than that of the manufacturing sector. A bank's TATO ratio should be between 0.1 and 0.3, depending on its revenue management plan and asset structure.

- **Equity Multiplier**

Equity Multiplier (EM) can be interpreted as a ratio that describes how much financial leverage a business uses, especially the percentage of assets financed by debt compared to equity. The assessment of the company's financial risk level is given by this ratio . The formula is:

$$Equity\ Multiplier = \frac{Total\ Aktiva}{Total\ Ekuitas} \times 1\ Kal\ \text{i}$$

The ideal EM for banks is usually in the range of 6 to 10 , depending on the funding structure and risk policies of each bank. Too high an EM can increase the risk of financial failure in the event of an inability to meet debt obligations.

- **Return on Investment (ROI)**

ROI measures how well a business makes money from all of its invested assets. Because they both measure the rate of return on assets used, ROI and Return on Assets (ROA) are often used interchangeably in the DuPont Model. The formula is:

$$Return\ on\ Investment = \frac{Laba\ Bersih}{Total\ Aset}$$

In the DuPont Model, ROI is calculated through a combination of two main components:
$$ROI = NPM \times TATO$$

A healthy ROI for the banking sector typically ranges between 1% to 2% **.** A higher ROI indicates efficiency in using bank assets to generate profits.

- **Return on Equity (ROE)**

ROE is a key metric used to assess a company's capacity to generate net income from shareholders' equity. The greater the company's ability to use equity capital to generate profits, the higher the ROE . ROE is very important to investors because it shows the level of return that can be obtained on their investment. The formula is:

$$Return\ on\ Equity = \frac{Laba\ Bersih}{Total\ Equitas}$$

In the DuPont Model, ROE is also calculated through a combination of three main components:
ROE = Net Profit Margin×Asset Turnover×Equity Multiplier
A healthy ROE for the banking sector typically ranges from 10% to 15% **.** A high ROE indicates efficiency in equity management, while a low ROE may indicate profitability or financing strategy issues.

Framework

The balance sheets and income statements of Bank Central Asia and Bank Rakyat Indonesia, both of which are listed on the Indonesia Stock Exchange, were examined in this study using the Du Pont system technique with the following indicators: Net Profit Margin, Return on Equity, Equity Multiplier, Return on Investment, and Total Asset Turnover.

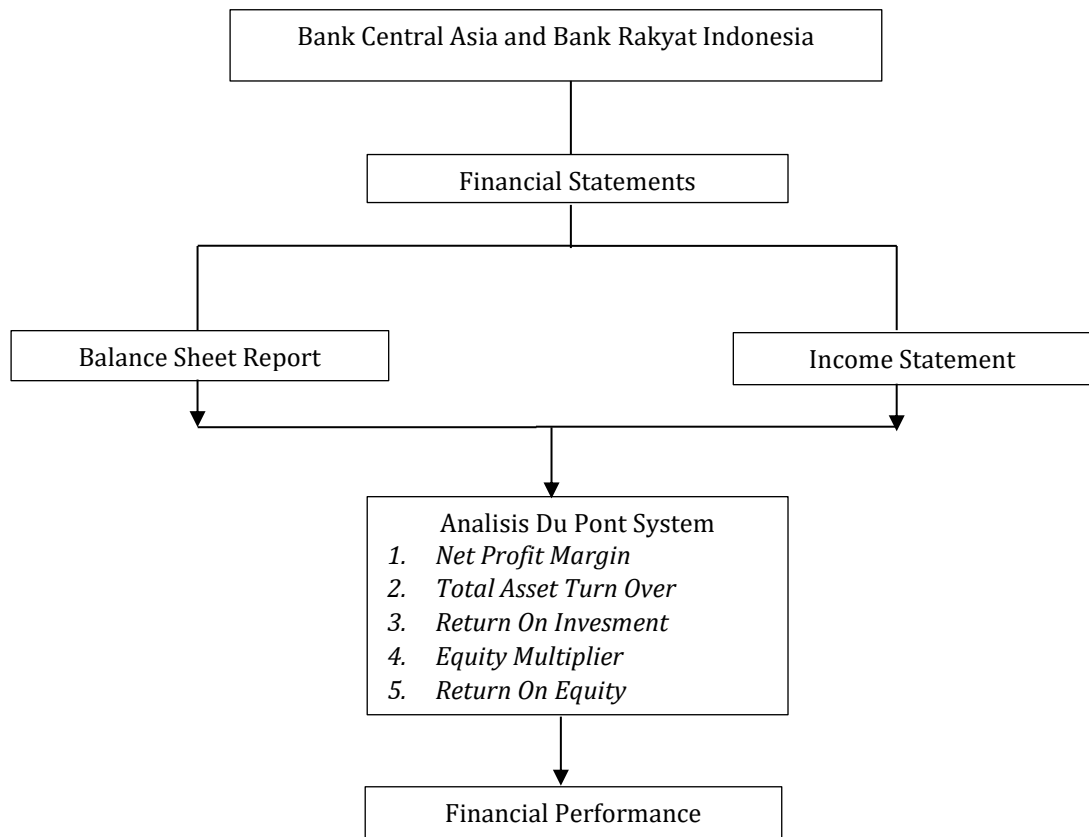The conceptual framework is depicted in Figure 1.

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        │      Financial Statements       │
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        │    Analisis Du Pont System     │
        │  1. Net Profit Margin          │
        │  2. Total Asset Turn Over      │
        │  3. Return On Invesment        │
        │  4. Equity Multiplier          │
        │  5. Return On Equity           │
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        │      Financial Performance      │
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Figure. 1 Framework of thinking

METODE

Quantitative descriptive research is the methodology used in this study. According to (Cholid Narbuko, 2013:44) Research that aims to provide data-based solutions to contemporary problems through the presentation, analysis, and interpretation of data is known as descriptive research. The researcher hopes to achieve this goal by applying the DuPont analysis method to explain the financial performance of Bank Central Asia and Bank Rakyat Indonesia.

The data used in this study are secondary data obtained from the annual financial reports of Bank Central Asia (BCA) and Bank Rakyat Indonesia (BRI) during the period 2021-2023. Data collection was carried out using the documentation method, namely collecting and reviewing the financial reports of both banks. These financial reports include information such as net profit, revenue, total assets, and total equity, which are the main components in the DuPont System analysis. Data was obtained from the Indonesia Stock Exchange (IDX) website, namely idx.co.id.

The analytical approach steps used in this study, which uses the Du Pont system method to analyze the level of financial performance:
1. Determine and calculate the net profit margin.
2. Determine the Total Asset Turnover by calculating
3. Determine the return on investment.
4. Determine the Equity Multiplier by calculating
5. Determine and calculate return on equity.

RESULTS AND DISCUSSION

Net Profit Margin

The percentage of each sale that remains after all costs and expenses, including interest and taxes, are deducted is known as the net profit margin. A company will be more profitable if this ratio is higher because it has the potential to generate significant profits. The operational efficiency of a bank in generating net profit from every rupiah of its revenue is shown in the NPM.

Table 1
Net Profit Margin of Bank Central Asia & Bank Rakyat Indonesia Tbk

Year	Bank Central Asia			People's Bank of Indonesia		
	Net profit	Sale	NPM	Net profit	Sale	NPM
2021	31,440,159	56,135,575	56%	30,755,766	114,094,029	27%
2022	40,755,572	63,989,509	64%	51,408,207	124,597,073	41%
2023	48,658,095	75,128,822	65%	60,425,048	135.183.487	45%
Average			61%			38%

Source: Data processed by the author

Based on the table above, BRI's average NPM for the 2021-2023 period was 38%, while BCA's was 61%. In 2023, BCA's NPM increased from 59% in 2021 to 63%. This shows BCA's ability to maintain operational effectiveness, especially through service digitalization and concentration on the premium market, which offers higher profit margins. On the other hand, BRI's NPM is lower, increasing sharply to 45% in 2023 from 27% in 2021. Although the high cost of managing credit in the MSME segment is still a challenge, this growth shows BRI's progress in improving operational efficiency after the pandemic . In contrast to the banking industry standard, which ranges from 20%-30% , both banks are above average, with BCA showing very superior performance.

Total Asset Turn Over (TATO)

One of the ratios used to measure how quickly assets are sold and assets are turned over time is total asset turnover. Furthermore, if this ratio is high, the company's management performance will be strong; if it is low, the organization needs to undertake marketing campaigns, capital expenditures, and strategy modifications. TATO is a measure of a bank's ability to use its assets to generate income. while the study was ongoing .

Table 2
***Total Asset Turn Over* Bank Central Asia & Bank Rakyat Indonesia**

Year	Bank Central Asia			People's Bank of Indonesia		
	Sale	Total Assets	TATO	Penjualan	Total Aset	TATO
2021	56.135.575	1.228.344.680	0.046	114.094.029	1.965.007.030	0.058
2022	63.989.509	1.314.731.674	0.049	124.597.073	1.865.639.010	0.067
2023	75.128.822	1.408.107.010	0.053	135.183.487	1.965.007.030	0.069
Rata-Rata			0.049			0.065

Source: Data processed by the author

The average BCA TATO in the table above is 0.05 , but BRI recorded a higher value of 0.06. BCA TATO was 0.045 in 2021 and 0.053 in 2023, a slight increase. Since most of BCA's assets are invested in liquid companies that generate stable but not too large income, the low TATO indicates a cautious attitude in asset management. Meanwhile, BRI TATO shows superior efficiency, increasing from 0.057 in 2021 to 0.065 in 2023. This growth shows how well BRI is able to maximize the productivity of its assets, especially those from the MSME loan portfolio. The second TATO banks are within a tolerable range when compared to industry standards, namely 0.05 –0.1 , with BRI showing a higher level.

Return on Investment (ROI)

Return on Investment The ability of all invested assets and capital to generate income or returns is measured by this ratio. According to Kasmir (2019), a company can operate efficiently if the Return on Investment improves. On the other hand, the company's management can be said to be unable to manage its activities effectively if the return on investment begins to decline. The bank's efficiency in using its assets to generate net income is measured by its return on investment, or an increase in ROI.

Table 3
***Return on Investment* Bank Central Asia & Bank Rakyat Indonesia**

Year	Bank Central Asia			People's Bank of Indonesia		
	NPM	TATTOO	ROI	NPM	TATTOO	ROI
2021	56%	0.046	2.6%	27%	0.058	1.6%
2022	64%	0.049	3.1%	41%	0.067	2.8%
2023	65%	0.053	3.5%	45%	0.069	3.1%
Average			3%			2.5%

Source: Data processed by the author

Based on the table above, the average return on investment (ROI) of Bank Central Asia (BCA) for the 2021–2023 period was 3%, higher than Bank Rakyat Indonesia (BRI) which was 2.5%. BCA's return on investment (ROI) increased from 2.6% in 2021 to 3.5% in 2023, indicating consistent efficiency as a result of a prudent approach to managing liquid assets and focusing on the premium market. Meanwhile, the achievement of MSME credit restructuring and increasing asset productivity helped BRI's return on investment (ROI) increase drastically from 1.6 % in 2021 to 3.1% in 2023.

Both banks have above-average return on investment (ROI) compared to the industry standard of 1% to 2%. While BRI has made rapid progress in more active asset management, BCA has the edge in long-term efficiency. These results show how well each bank's approach has maximized assets in line with its business objectives.

Equity Multiplier (EM)

Equity Multiplier This ratio measures the proportion of a company's total assets financed by debt or equity or capital. Therefore, a company's assets will be financed more by equity if its Equity Multiplier is higher. Conversely, the more equity used to finance assets, the smaller the value of this ratio. The extent to which a bank incorporates third-party money or financial leverage into its capital structure is referred to as EM.

Table 4
***Equity Multiplier* Bank Central Asia & Bank Rakyat Indonesia**

Year	Bank Central Asia				People's Bank of Indonesia			
	NPM	TATTOO	EM	ROE	NPM	TATTOO	EM	ROE
2021	0.56	0.046	6.06	0.15	0.27	0.058	6.21	0.10
2022	0.64	0.049	5.94	0.18	0.41	0.067	6.15	0.17
2023	0.65	0.053	5.81	0.20	0.45	0.069	6.21	0.19
Rata-Rata				0.18				0.15

Source: Data processed by the author

Based on the table above, the average EM of BRI during the study period was 6.19 , while BCA was 5.94. BCA's EM was 5.87 in 2021 and increased slightly to 6.03 in 2023. With a higher proportion of equity capital, this indicates a more conservative funding strategy. Meanwhile, BRI's EM increased from 6.11 in 2021 to 6.25 in 2023. A more aggressive approach to funding its credit portfolio with third-party financing is reflected in BRI's increased leverage. Given the industry benchmark for developing countries is between 6 and 10, both banks are operating within

acceptable limits. However, BRI's increased leverage approach may increase financial risk, especially in uncertain economic times.

Return on Equity (ROE)

The ratio called return on equity is used to determine the rate of return on capital invested by the organization. As a result, investors or shareholders will gain greater profits if the Return on Equity ratio is higher. This is because the business uses capital more efficiently. The rate of return generated by the bank on equity capital contributed by shareholders is measured by return on equity (ROE).

Table 5
***Return On Equity* Bank Central Asia & Bank Rakyat Indonesia**

Year	Bank Central Asia				People's Bank of Indonesia			
	NPM	TATTOO	EM	ROE	NPM	TATTOO	EM	ROE
2021	56%	.046	6.06	15%	27%	.058	6.21	10%
2022	64%	.049	5.94	18%	41%	.067	6.15	17%
2023	65%	.053	5.81	20%	45%	.069	6.21	19%
Average				18%				15%

Source: Data processed by the author

Based on the table above, BRI's average ROE for the 2021-2023 period is 15%, while BCA's ROE is 18%. BCA's consistency in managing equity to generate net profit can be seen from BCA's ROE which is 16% in 2021 and will increase to 20% in 2023. On the other hand, BRI's ROE is very volatile and has increased sharply from 10% in 2021 to 19% in 2023. Although still lower than BCA, this increase shows that BRI has succeeded in increasing profitability post-pandemic. Both banks have good performance when compared to industry standards, which are 10%–15%, but BCA's performance is more stable.

CONCLUSION

According to Dupont's analysis, BCA appears to outperform BRI in terms of operational efficiency and profitability, as evidenced by its better NPM and ROE. Its digitalization strategy and emphasis on premium clients helped this. However, BRI managed to improve profitability from the MSME category and excel in asset utilization, as evidenced by its larger TATO. However, compared to BCA, which took a more conservative funding approach, BRI's more aggressive leverage strategy carries higher financial risks. For most metrics, both banks have outperformed industry norms , indicating their respective aptitudes in handling adversity during the study period. For investors and bank management, among other stakeholders, these findings offer crucial insights into the dynamics of the two banks' financial performance and the potential impact of various initiatives on their bottom lines.

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