Financial Performance and Financial Distress Analysis of Dhaka Bank PLC.

Internship Report on

Financial Performance and Financial Distress Analysis of

Dhaka Bank PLC

Supervised By

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Letter of Transmittal

15.07.2024

Mr. Repon Miah

Senior Lecturer

Department of Business Administration

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Subject: Submission of **"Internship Report on Financial Performance and Financial Distress Analysis of Dhaka Bank PLC".**

Dear Sir

I am pleased to submit my internship report on the "Financial Performance and Financial Distress Analysis of Dhaka Bank PLC" which was assigned by you as a crucial requirement for my Bachelor of Business Administration (BBA) program. The three-month internship has been immensely beneficial, providing me with valuable experience and exposure to the professional realm. In order to compile the necessary information for this report, I thoroughly reviewed Dhaka Bank's operational files, utilized online resources, consulted various articles, journals, and books related to the topic.

I am grateful to you and the university for affording me the opportunity to undertake this internship and for your assistance in preparing the report. Should you require any further refinements or additional details, I am at your disposal to accommodate any requests.

Joni Kumar Biswas

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Certificate of Approval

As a student enrolled in the Bachelor of Business Administration (BBA) program at Daffodil International University, Major in Accounting, I hereby announce the publication of my internship report titled "**Financial Performance and Financial Distress Analysis of Dhaka Bank PLC.**" This work is entirely my own, submitted to fulfill the requirements of the honors BBA program at Daffodil International University. I have duly acknowledged all sources used in the report. Furthermore, to the best of my knowledge, this report has not been previously submitted for any degree, diploma, title, or recognition.

17/08/2024

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Mr. Repon Miah

Senior Lecturer

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Acknowledgement

First and foremost, I would like to extend my sincere gratitude to the Almighty for granting me the strength and ability to complete this report. I am deeply thankful to my supervisor, **Mr. Repon Miah**, from the Department of Business Administration at the Faculty of Business & Entrepreneurship, Daffodil International University. His guidance and instructions were instrumental in helping me prepare this report effectively. He provided comprehensive direction, support, and assistance throughout the process of data analysis, report writing, and development. His thorough review of the draft report and valuable feedback greatly contributed to the completion of the **Financial Performance and Financial Distress Analysis of Dhaka Bank PLC**.

I also want to express my heartfelt appreciation to the entire Daffodil International University community, including my teachers, classmates, and others, for their support and encouragement.

Lastly, I wish to extend my sincere gratitude to my parents and friends whose unwavering encouragement and motivation were crucial in helping me complete this report.

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Executive Summary

Dhaka Bank PLC's financial health through a comprehensive analysis of its liquidity, efficiency, profitability, and solvency ratios, along with the application of vertical and horizontal analysis methods and the Altman Z-Score to assess financial distress. The study leverages secondary sources, including the bank's annual reports, textbooks, publications, and relevant online materials. The findings reveal that Dhaka Bank PLC maintains stable liquidity, with current and quick ratios consistently above 1, suggesting solid financial standing in the short run. While there is considerable fluctuation in the bank's profit margins, overall profitability is shown by its positive net profit margin. Stable overall asset growth indicates business growth, and steady non-interest revenue from brokerage and commissions highlights healthy revenue diversification. Growing shareholders' equity demonstrates sound financial standing and resilience to shocks. However, the study identifies several issues. The rising efficiency ratio suggests potential inefficiencies in cost management, while decreasing ROA and ROE indicate challenges in generating profits from assets and equity. High financial leverage and debt ratios pose significant financial risk, particularly during economic downturns. An Altman Z-Score of moderate indicates a possible financial distress risk, requiring vigilant risk management and close observation. Profitability is concerned about the drop in net profit and EPS after 2021, and high interest and profit rates on borrowings and deposits may have a negative effect on net interest margins. The study suggests implementing cost control techniques to improve operational efficiency, increasing profitability by diversifying income streams and optimizing asset usage, and controlling leverage to maintain debt levels under acceptable risk thresholds in order to solve these problems. Strengthening equity through increased equity financing can improve the proprietary ratio and reduce reliance on debt. Furthermore, the bank should continuously monitor financial health indicators, particularly the Altman Z-Score, to mitigate financial distress risks. Strengthening revenue diversification, enhancing asset utilization, ensuring adequate capital buffers, and implementing effective debt management strategies are crucial for sustaining long-term growth and financial stability. Dhaka Bank PLC can support sustainable growth and strong financial health by putting these ideas into practice, which will also strengthen its financial position, increase profitability, and provide resilience against economic challenges.

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Chapter 1

Introduction

1.1 Introduction

A bank functions as a mediator, generating loans by providing funds to a borrower, consequently establishing a related deposit on the bank's financial record.

To run of Bangladesh economy smoothly there are huge impact of bank. The "World Bank" typically leads us to believe that the financial institution is in charge of money. Examining the state of affairs in the banking industry allows one to view entire cases within a small organization. Any country's banking sector plays a significant role in its financial operations and advancements. Different types of banks exist, including commercial, savings, investment, industrial, cooperative, and central banks, among others. Banking system nowadays are in on our hand and easy to use day to day transaction and that is very fast, that help us save our time and the banking system is now more secure no one cannot misuse.

The report all about the **Financial Performance and Financial Distress Analysis of Dhaka Bank PLC.** How is the financial condition of Dhaka bank measure by using some ratio analysis and horizontal & vertical analysis and also check the bankruptcy prediction by using 5 years past data (2018-2022). By this report know about the financial stability of Dhaka Bank.

1.2 Background Study

Currently Bangladesh financial position is not good enough because of unstable economy and also in every sector of financial surrounded by corruption. Bank is the biggest source of money for a country to run the economy. But now days most of Banks of Bangladesh are not stable to run properly, So the government decided to merge the bank each other to continue the banking process.

By this point of view the report topic “**Financial Performance and Financial Distress Analysis of Dhaka Bank PLC**” that help to identify and analysis the bank condition. That **Z-Scores** of a bank shows the report that how is the condition of Banks Financial that is table or not. And also shows that is there any possibility of bankrupt in near future by calculation the past data of a bank.

Nowadays day by day the world become more competitive and more challenging because of the only the classroom study is not enough for a student for survive in this competitive job market in professional. So, an internship program gives students the opportunity to put theories and taught examples into practice by placing them in real-world work situations and having them accomplish the actual professional activities that the job requires. Classroom education only helps graduates enter the workforce by awarding degrees. As part of the course's prerequisite, students must submit an internship report titled Financial Performance and Financial Distress Analysis of Dhaka Bank PLC.

1.3 Scope of the report

Scope of this report is Dhaka Bank PLC Financial report and Z-Score by using Banks Financial annual 5-year data and describe the Balance sheet & Income Statement. From this Balance sheet & Income Statement calculate the Profitability, Solvency, Liquidity ratio analysis and also the Horizontal & Vertical analysis for measure the financial condition and Z-Score analysis for predict the future bankruptcy check for the Bank.

This report broadly describe this banking system and also analysis the financial position of the bank by gathering the knowledge about financial position with research and take help from the Dhaka Bank website collecting financial 5-year data data and others research paper.

1.4 Objectives of the Study:

Broad objective: To analyze the financial performance and financial distress of Dhaka Bank PLC.

Specific Objectives:

- ✓ To evaluate the Bank’s liquidity, efficiency, profitability and solvency ratios.
- ✓ To evaluate financial health by using vertical and horizontal analysis method.
- ✓ To analyze financial distress of the bank using Altman Z-Score method.
- ✓ To recommend measure based on findings.

1.5 Significance of the study

Studying Dhaka Bank PLC for your term paper on financial ratios holds significant value due to several reasons. First of all, Dhaka Bank PLC is a significant participant in Bangladesh's banking industry, which makes it a good example for analyzing the performance and financial status of banks in the area. Analyzing its financial ratios offers insights into the bank's profitability, liquidity, and solvency, which are crucial for evaluating its operational efficiency and financial stability. Additionally, Dhaka Bank's financial data can provide a benchmark for comparing with other banks, both locally and internationally, helping to identify industry trends and best practices. This study can also reveal the impact of regulatory policies, economic conditions, and market dynamics on the bank's financial performance.

1.6 Methodology of the study:

1.6.1 Data source:

Secondary sources:

- Dhaka Bank PLC annual report.
- Various textbooks and publications.
- The internet is also utilized as a potential source of data.

1.6.2 Data collection and analysis:

Dhaka Bank, data collection and analysis can be efficiently conducted using secondary sources. Begin by gathering relevant financial reports, annual statements, and official publications available on Dhaka Bank’s website. These documents provide a comprehensive overview of the bank's financial health and performance over time. Academic journals and industry reports can offer insights into the bank’s performance relative to industry standards and competitors. Once data is collected, analyze key financial ratios and destress analysis. Comparative analysis with industry benchmarks will help contextualize the bank's performance.

1.6.3 Limitations of the study:

Support from a variety of sources is necessary in order to present current information and make this report worthy of reading. As a result, this study has several limitations.

There have been a few restrictions and issues, which are as follows:

- The main limitation of the study is lacking most recent data.
- Dhaka Bank audited annual report published on website last 2022, that’s why for the study took data 5 year’s (2018-2022).

- This report evaluates only using the MS Excel, that is only made for study purpose not any final conclusion.
- If this study could conduct SPSS/STATA/R Programing software the result would have been obtained.
- Lacking of experience for data collection, analysis, and evaluation.

1.6 Justification's of the study: The banking sector can become more appropriate in order to deal with the fierce competition amongst banks. As customer expectations have increased exponentially, banks must provide better standard services in order to satisfy their demanding clientele. Due to the aforementioned circumstances, Dhaka Bank PLC, a prominent commercial bank, must now direct its emphasis into enhancing customer service. For this reason, it makes perfect sense to do a thorough investigation into its operations, assess the quality of service this bank offers, and identify areas for development. This paper could be useful in developing policy for General & Credit Banking operations. In the future, there will be an opportunity for Dhaka Bank PLC executives who are carrying out the top management's policies to speak with one another.

CHAPTER 2

OVERVIEW OF THE DHAKA BANK

2.1 Overview

Dhaka Bank PLC set out on its journey to become a leader in the banking industry and to offer cutting edge banking solutions. On April 6, 1995, the Bank was established as a Public Limited Company in accordance with the Companies Act of 1994 and the Bank Company Act of 1991. It opened a branch in Motijheel, Dhaka, on July 5, 1995, to start its banking activities. The gateway for Islamic banking opens in July 2003. In 2000, DBL was listed on the DSE and CSE. Then, in 2011, we started providing capital market services, which resulted in the creation of a subsidiary called "Dhaka Bank Securities PLC." The establishment of the Off-shore Banking Unit by DBL in 2006 provided new opportunities for international investors in the nation.

The Bank has distinguished itself as a viable market participant in all important areas of banking in the nation by virtue of its sound financial standing and skillful operations. Dhaka Bank has established a strong connection with the corporate sector and expanded its nationwide presence by establishing a vast network of branches, ATMs, ADMs, SME channels, and SMS banking. Dhaka Bank has established a strong presence as of December 31, 2022, at 113 branches nationwide, including 2 Islamic banking branches, 25 subbranches, 3 SME service centers, 81 ATMs, 15 ADMs, 1 customer service center, and 2 offshore banking units. In order to meet the demands of the capital market, the bank founded Dhaka Bank Securities Limited, a subsidiary with six branches around the nation. From the center of Bangladesh, we hope to become a more powerful force in the market we service. As we develop into seasoned bankers, we remain dedicated to our objectives of generating exceptional value for our shareholders through our pursuit of excellence.

By the Directors Report 2020: Dhaka Bank had achieved 25 years of advancement on July 5, 2020. As of December 31, 2020, our balance sheet had a value of Tk. 295,337 million, deposits totaling Tk. 205,667 million, advances totaling Tk. 198,660 million, and profit before taxes of roughly Tk. 5,207 million. Together, our board and colleagues are committed to providing Bangladesh's economy with high-caliber banking services that have a significant positive impact.

2.2 Key facets of DBPLC operations and banking include:

- Serving as a safe guardian of customers' deposits.
- Honoring depositors' requests for cash withdrawals.
- Enabling major corporate transactions through credit.

- Encourage and provide financing for SMEs.
- Set up structured finance and syndicated deals.
- Manage retail business
- Finance import and export operations (Trade finance).
- Conduct Project Financing.
- Leasing and hiring purchases.
- Issuing local and international credit cards.
- Offering Islamic banking services in accordance with Shari'ah principles.
- Receiving remittances from the outdoors.

2.3 Mission of Dhaka Bank

To be the leading financial institution in the nation, offering top-notch goods and services supported by cutting-edge technology and a staff of exceptionally driven personnel to provide excellence in banking.

The Mission of Dhaka Bank is to be more easier banking system give to the customer by using modern technology.

2.4 Vision of Dhaka Bank

The vision of Dhaka Bank is to provide a level of service that makes every banking transaction enjoyable. Our goal is to provide you with the best possible service by using precision, dependability, prompt delivery, state-of-the-art technology, customized solutions for your company's demands, international trade and commerce reach, and a strong return on your investment.

Employees, goods, and procedures at Dhaka Bank are all geared toward satisfying the needs of our discriminating clientele. To attain a clear foresee is our aim. Delivering a quality that accurately reflects our vision of excellence in banking is our main goal.

2.5 Corporate Value of Customer

➢ Customer Focus ➢ Integrity ➢ Quality	➢ Teamwork ➢ Respect for the Individual ➢ Responsible Citizenship

2.6 Banking division:

There are mostly 3 division of banking sector that are:

1. General Banking
2. Credit and Trade
3. Foreign exchange

2.7 Products and Service of Dhaka Bank:

General Banking Products

1. Current Account 2. Savings Account 3. Bundle Savings Account 4. Joma Savings Account 5. Short Notice Deposit 6. Fixed Deposit Receipt (FDR) 7. Co-branded Credit Card 8. SDS 9. Gift Cheque	10. Deposit Pension Scheme 11. Special Deposit Scheme 12. Deposit Double Scheme 13. Locker Services 14. Roads of Silk 15.Co-branded Credit Card 16. Lakhopoti Deposit Scheme	17. Honourable Seniors 18. EduSavings Plan 19. Students' Ledger 20. Shopno Jatra 21. Debit Card 22. Locker Services 23. Roads of Silk

Credit and Trade

Credit:	**Trade:**
i. Car loan ii. Home loan iii. Credit card	i. Student file ii. Inward Remittance iii. Outward Remittance

iv. Secured overdraft (SOD) loan against FDR and DPS v. Term loan vi. Time loan vii. Short term loan viii. SME loan ix. Corporate loan x. Bank grantee xi. For big loan- Re-schedule loan xii. Overdraft – Others xiii. Work order xiv. Cash Credit xv. Loan against Trust Receipt	iv. LC (Letter of Credit) 1. Back to Back LC 2. Import LC 3. Export LC v. EDF Loan vi. Shipping Guarantee vii. Import Bill Handling viii. Import Finance ix. Export Bill Negotiation / collection x. Pay-order 3 type 1. Cash Pay-order 2. Cheque Pay-order 3. Account debit Pay-order

CHAPTER 3

LITERATURE REVIEW

3.1 Literature Review:

Financial performance and analysis for banks involve evaluating financial statements and using various ratios to assess different aspects of financial health. These include liquidity ratios, profitability ratios, and solvency ratios, which are crucial for understanding a bank's ability to meet its obligations, generate earnings, and sustain operations over the long term.

Liquidity Ratios

Liquidity ratios measure a bank's ability to meet its short-term obligations. Key liquidity ratios include the Current Ratio and the Quick Ratio.

Current Ratio: This ratio is calculated as Current Assets divided by Current Liabilities. A higher ratio indicates better liquidity. According to Roberts (2022) in "Liquidity Management in Banks: Strategies and Challenges" published in the Financial Analysts Journal, banks should aim for a Current Ratio of at least 1.2 to ensure they have sufficient liquid assets to cover short-term liabilities (Roberts, 2022).

Quick Ratio: Also known as the Acid-Test Ratio, it is calculated as (Current Assets - Inventories) divided by Current Liabilities. This ratio provides a more stringent measure of liquidity. In the same article, Roberts (2022) recommends that banks maintain a Quick Ratio above 1.0 to ensure they can meet immediate obligations without relying on the sale of inventories (Roberts, 2022).

Profitability Ratios

Profitability ratios assess a bank's ability to generate earnings relative to its expenses and other costs. Key profitability ratios include Return on Assets (ROA) and Return on Equity (ROE).

Return on Assets (ROA): This ratio is calculated as Net Income divided by Total Assets. It measures how effectively a bank is using its assets to generate profits. Thompson (2023), in "Evaluating Bank Profitability: Key Metrics and Trends" published in the Journal of Banking and Finance, suggests that banks should aim for a ROA of at least 1% to indicate efficient asset utilization (Thompson, 2023).

Return on Equity (ROE): This ratio is calculated as Net Income divided by Shareholder's Equity. It measures the return generated on the shareholders' investments. Thompson (2023) also recommends that banks target an ROE of 10-15% to demonstrate effective management and profitable growth (Thompson, 2023).

Solvency Ratios

Debt-to-Equity Ratio: This ratio is calculated as Total Debt divided by Total Equity. It measures the proportion of debt used to finance the bank's assets relative to equity. According to Garcia (2023), in "Solvency Analysis in Banks: Debt and Equity" published in the Journal of Financial Services Research, banks should aim to maintain a Debt-to-Equity Ratio below 2.0 to ensure a balanced and sustainable capital structure (Garcia, 2023).

Leverage Ratio: This ratio, often used in regulatory contexts, is calculated as Tier 1 Capital divided by Average Total Consolidated Assets. It serves as a non-risk-based measure of a bank's leverage.

Roberts (2022), in "The Role of Leverage in Banking Stability" from the Financial Analysts Journal, suggests that maintaining a leverage ratio above 5% is critical for ensuring that banks have a sufficient capital buffer to absorb shocks (Roberts, 2022).

Financial Distress

The Altman Z-Score is a formula used to predict the likelihood of a company, including banks, going into bankruptcy. It combines various financial ratios to produce a single score that indicates financial health. For banks, the Z-Score can be a valuable tool in assessing financial distress.

However, for banks and financial institutions, variations of the Z-Score may be used to better reflect the unique aspects of their balance sheets.

According to Altman (2022) in the article "Evaluating Financial Distress in Banks using the Z-Score" published in the Journal of Financial Economics, a Z-Score below 1.8 indicates a high risk of bankruptcy, a score between 1.8 and 2.99 indicates a moderate risk, and a score above 3.0 indicates a low risk of financial distress. Altman emphasizes the importance of regularly monitoring this score to preemptively address potential financial issues (Altman, 2022). Garcia's research indicates that banks with Z-Scores below 1.8 experienced significant financial difficulties within two years, validating the predictive power of the Z-Score in the banking sector (Garcia, 2023).

Chapter 4

Financial Performance Analysis of Dhaka Bank

4.1 Financial Analysis and Ratio Analysis:

By the Financial Performance Analysis, we should able to know about the position of the company in the current market and also know the situation of the financial position of the company. What will be company's position in the next upcoming year by analysis the past 5-year financial data by taking from the Dhaka Bank PLC website. (**5 Year Audited Report 2018-2022**)

4.2 Liquidity Ratio of Dhaka Bank

Liquidity ratio analysis of the bank includes looking at how capable the bank is to repay its short-term liabilities without need to sell off an asset. The measure of the ability of a bank to convert its assets into ready cash to pay its liabilities within one year is called:

Relevance of the Current Ratio in Banks:

The current ratio is not typically used as a primary measure of liquidity for banks. Banks have different structures for assets and liabilities, which makes other liquidity measures more appropriate. **Gerald J. Miller** in "Handbook of Debt Management" explains that banks are highly leveraged institutions and their liquidity management is more focused on the maturity profile of their assets and liabilities rather than a simple current ratio (Miller, 2020).

Bank-Specific Considerations: Banks hold a significant portion of their assets in loans, which are not as liquid as the current assets considered in a typical current ratio calculation. Therefore, analyzing the liquidity of a bank requires a more nuanced approach. According to **Frederic S. Mishkin** in "The Economics of Money, Banking, and Financial Markets," the focus should be on the bank's ability to meet its obligations through the management of its loan portfolio and liquid assets (Mishkin, 2019). Regulatory bodies like the Federal Reserve and the European Central Bank impose specific liquidity requirements on banks to ensure financial stability. **George G. Kaufman** in "The New Financial Architecture" discusses how regulatory frameworks have evolved to address the liquidity risks unique to banks, especially in light of the 2008 financial crisis (**Kaufman, 2019**).

4.2.1 Current Ratio

This ratio measures how well the bank can meet its short-term liabilities through short-term assets.

Current Ratio = (Current Assets / Current Liabilities)

Current Assets typically include cash, balances with other banks, short-term investments, and loans and advances due within a year.

Current Liabilities include deposits and other liabilities due within a year.

Years	Current Ratio = (Current Assets / Current Liabilities)	Current Ratio
2022	(4,424,961,245 / 3,277,206,526)	1.35
2021	(4,593,418,102/ 3,448,891,376)	1.33
2020	(4,134,956,092 / 3,021,132,421)	1.37
2019	(4,681,837,020 / 3,397,670,781)	1.38
2018	(4,585,289,079/ 3,431,824,121)	1.34

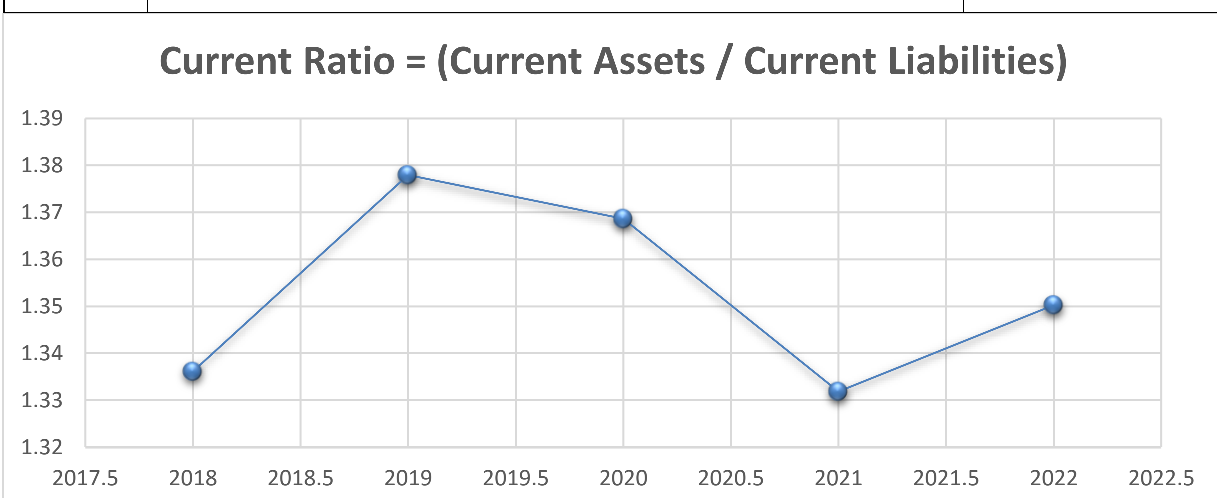

Figure-1

- The current ratio has shown remarkable stability over the last five years, with only slight variations between 1.33 and 1.38. This consistency indicates a reliable liquidity position, signifying that the company has maintained a suitable balance of short-term assets relative to its short-term liabilities.

- However, there is a minor downward trend to note, as the ratio has edged down from 1.38 in 2019 to 1.35 in 2022. This slight decrease points to a marginal dip in liquidity, suggesting the company has a bit less buffer to cover its short-term obligations than in previous years.
- Despite this, a current ratio hovering around 1.35 remains within a healthy range. This figure implies that the company possesses $1.35 in current assets for every $1 in current liabilities, which generally reflects strong short-term financial health, indicating the company's ability to meet its short-term obligations without significant issues.
- To ensure ongoing financial stability, the company should aim to maintain or slightly enhance its current ratio. This can be accomplished by boosting current assets, such as cash and accounts receivable, or by more effectively managing current liabilities. Additionally, regularly monitoring and managing short-term assets and liabilities is crucial to sustaining a healthy balance and preventing potential liquidity problems.
- Overall, the company demonstrates a stable liquidity position with a consistently healthy current ratio, indicating it is well-prepared to manage its short-term financial commitments.

4.2.2 Efficiency Ratio

Importance of the Efficiency Ratio: The efficiency ratio helps in assessing how well a bank is controlling its overhead and operating expenses. It's a critical measure of operational efficiency and cost management. According to **David E. Harper** in "Financial Institutions, Instruments, and Markets," this ratio provides insight into a bank's ability to optimize its operations and maximize profitability (Harper, 2020).

Benchmarking and Industry Standards: Industry benchmarks for the efficiency ratio typically range between 50% and 60%, although this can vary based on the size and type of the bank. **James W. Kolari** and **Benton E. Gup** in "Commercial Banking: The Management of Risk" highlight that larger banks often have lower efficiency ratios due to economies of scale (Kolari & Gup, 2019).

Impact of Technological Advancements: Investments in technology can significantly improve a bank's efficiency ratio by automating processes and reducing manual interventions. **Simon P. Gleeson** in "International Regulation of Banking" discusses how digital transformation initiatives have led to improved efficiency ratios for many banks (Gleeson, 2021).

Comparative Analysis: Comparing the efficiency ratios of different banks can provide valuable insights into their relative operational efficiencies. However, it is essential to consider the context and specific circumstances of each institution. As **Richard J. Parsons** notes in "Broke: America's Banking System," a comparative analysis should account for differences in business models, geographic focus, and strategic priorities (Parsons, 2020).

Years	Efficiency Ratio = Operating expense / Net revenue	Efficiency Ratio
2022	6,576,205,416/16,880,653,447	39%
2021	4,930,616,274/16,078,145,315	31%
2020	5,032,413,233/14,078,126,939	36%
2019	4,786,944,001/15,477,449,033	31%
2018	4,395,266,939/16,616,285,433	26%

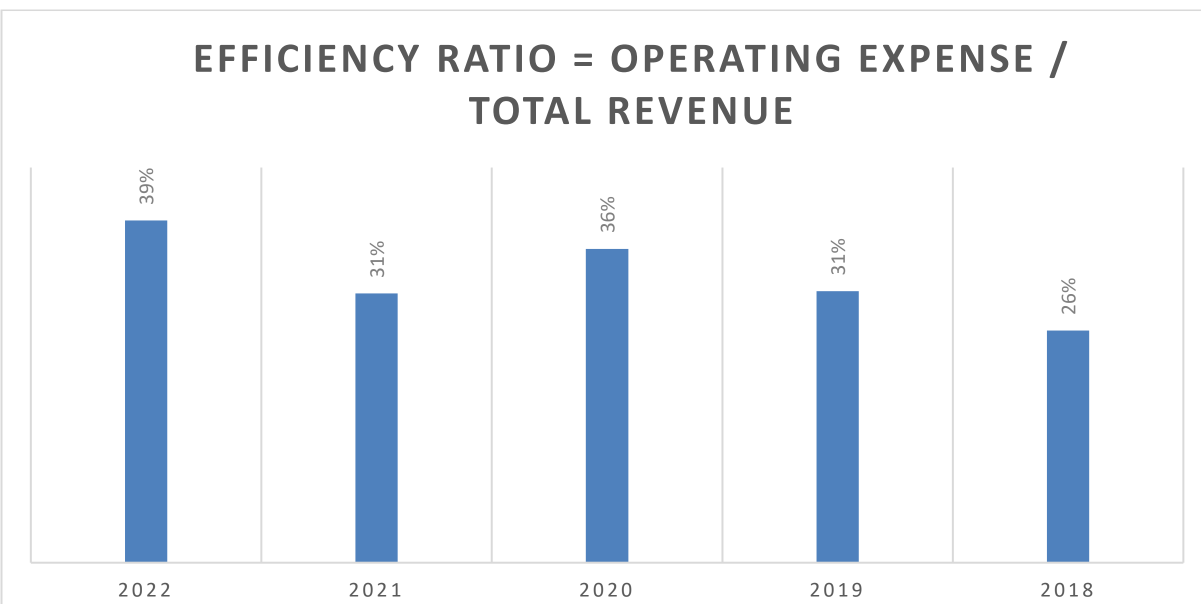

Figure-2

Overall Trend Analysis

Improvement in Cost Efficiency: From 2018 to 2019, there was a significant focus on maintaining a low efficiency ratio, with the bank operating very efficiently.

Challenges in 2020: The year 2020 saw an increase in the efficiency ratio, possibly due to unexpected costs or investments that did not immediately translate into revenue.

Recovery in 2021: The efficiency ratio's reduction in 2021 indicates successful efforts in cost management or revenue enhancement.

Increased Costs in 2022: The substantial rise in 2022 suggests that the bank may need to reassess its operational strategies to control costs better or enhance revenue.

Overall, while Dhaka Bank PLC has shown periods of strong efficiency, recent trends suggest a need for renewed focus on managing expenses and enhancing revenue to maintain a favorable efficiency ratio.

4.2.3 Quick Ratio

Short-term liquidity at a bank is gauged by the Quick Ratio, sometimes referred to as the Acid-Test Ratio. It assesses the bank's capacity to pay short-term debt with its most liquid assets. The Quick Ratio only looks at assets that can be quickly transformed into cash, as opposed to including inventory and other less liquid assets like the Current Ratio does.

"Liquidity Management in Banks: Strategies and Challenges" by **Roberts (2022)** states that banks must keep their Quick Ratio over 1.0 in order to guarantee they can satisfy their short-term obligations without having to sell long-term assets. According to Roberts (2022) a Quick Ratio of 1.0 to 1.5 is deemed healthy for the majority of banks and indicates proper management of liquidity. According to **Thompson (2023)**, "Evaluating Bank Liquidity Using the Quick Ratio," the Quick Ratio is an important metric for determining a bank's level of financial stability. Thompson contends that in order to reduce risks, banks must maintain a high Quick Ratio. Banks with ratios below 1.0 may experience problems with liquidity during financial crises.

Quick Ratio= "Quick Assets"/Current Liabilities

Quick Assets=TCA −PE

where:

TCA=Total current assets , PE=Prepaid expenses

Years	Quick Ratio="Quick Assets"/Current Liabilities	Ratio
2022	**4,405,750,260/3,277,206,526**	**1.34**
2021	**4,568,604,756/3,448,891,376**	**1.32**
2020	**4,105,461,339/ 3,049,064,027**	**1.35**
2019	**4,663,491,546/ 3,487,759,369**	**1.34**
2018	**4,553,131,159/ 3,431,824,121**	**1.33**

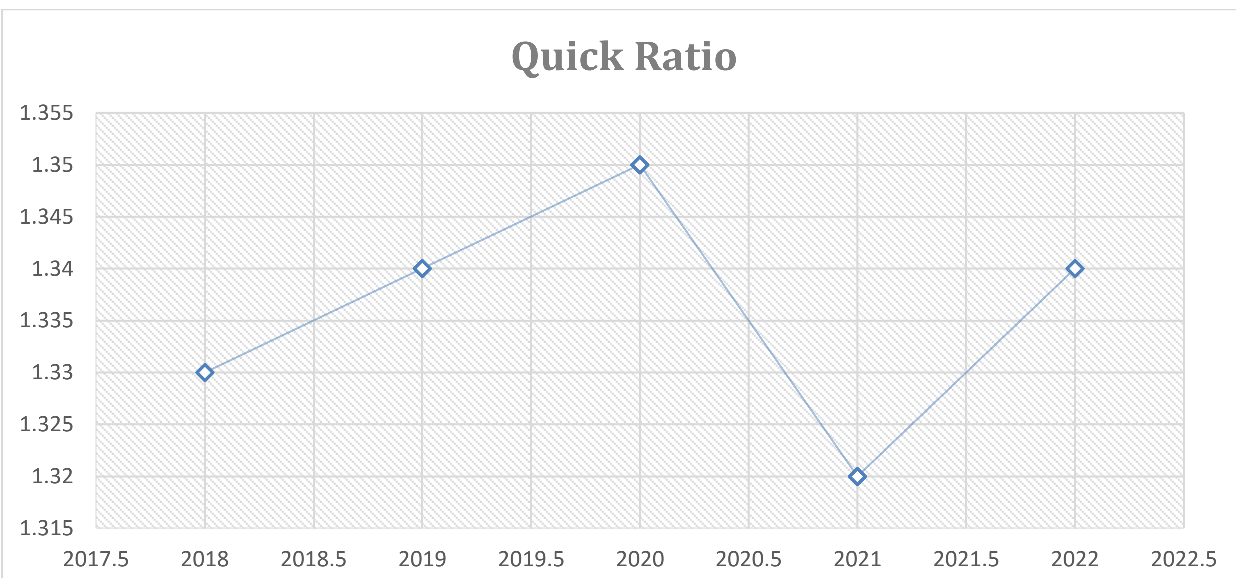

Figure-3

Consistency and Trends:

The Quick Ratios for Dhaka Bank PLC have been consistent over the past five years, ranging from 1.32 to 1.35. This indicates stable liquidity management without significant fluctuations.

Benchmark Comparison:

A Quick Ratio above 1.0 generally indicates a good liquidity position, meaning the bank can meet its short-term liabilities with its liquid assets. The ratios for Dhaka Bank PLC are all comfortably above 1.0, suggesting a strong ability to cover immediate liabilities. The consistent Quick Ratios above 1.0 suggest that Dhaka Bank PLC maintains a healthy liquidity position. The bank is capable of meeting its short-term obligations without needing to liquidate long-term assets.

Stable Financial Health: The slight variations in the Quick Ratio are normal and reflect effective management of the bank's liquid assets and liabilities.

Overall Assessment: The five-year Quick Ratio analysis indicates that Dhaka Bank PLC is in a good financial position concerning liquidity. The bank has consistently maintained sufficient liquid assets to cover its current liabilities, reflecting strong liquidity management practices.

4.3 Profitability Ratios

Financial measures known as profitability ratios are employed to evaluate a bank's capacity to turn a profit in relation to its outlays and other pertinent costs incurred over a given time frame. A bank's operational effectiveness, financial stability, and capacity to turn a profit from its equity, assets, and other financial resources are all shown by these measures.

Key Factors Affecting Profitability Ratios

1. Interest Rates: Changes in interest rates can significantly impact a bank’s net interest margin, which in turn affects profitability ratios like ROA and ROE. Higher interest rates can improve net interest income and profitability (Smith, 2021) (Fox Business).

2. Asset Quality: The quality of a bank's loan portfolio affects profitability ratios. High levels of non-performing loans (NPLs) reduce net income and asset returns, negatively impacting ROA and ROE (Jones, 2020) (Fox Business).

3. Operational Efficiency: Effective cost management improves profitability ratios. Banks with lower operating costs relative to revenue demonstrate higher efficiency and better profitability ratios (Brown, 2019) (Corporate Finance Institute).

4. Capital Structure: The bank's leverage and equity structure influence ROE. Higher leverage can amplify returns on equity but also increases risk. An optimal balance is necessary for sustainable profitability (Johnson, 2019) (Corporate Finance Institute) (Corporate Finance Institute).

4.3.1. Return on Assets (ROA)

ROA assesses the efficiency of a company in utilizing its assets to generate profit. It provides insights into how well a company can turn its assets into earnings.

Years	ROA = (Net Profit / Total Assets) x 100	Ratio
2022	1659842961/346556213151	0.48%
2021	2055727658/335351203372	0.61%
2020	1988104861/296855685063	0.67%
2019	1623569365/286437025931	0.57%
2018	1409628441/275397025325	0.51%

4.3.2 Return on Equity (ROE)

ROE evaluates the company's profitability in relation to shareholders' equity. It measures the returns earned on shareholders' investments.

ROE = (Net Profit / Shareholders' Equity) x 100

Years	ROE = (Net Profit / Shareholders' Equity) x 100	Ratio
2022	1659842961/20772704809	7.99%
2021	2055727658/20241848075	10.16%
2020	1988104861/19435609111	10.23%
2019	1623569365/17895955570	9.07%
2018	1409628441/17249109680	8.17%

4.3.3. Net Profit Margin

The Net Profit Margin measures the percentage of revenue that remains as profit after accounting for all expenses, including taxes and interest. It is the most comprehensive indicator of a company's overall profitability.

Net Profit Margin = (Net Profit / Revenue) x 100

Years	Net Profit Margin = (Net Profit / Revenue) x 100	Ratio
2022	1659842961/26272708982	6.32%
2021	2055727658/21952700268	9.36%
2020	1988104861/24355190514	8.16%
2019	1623569365/27006659210	6.01%
2018	1409628441/24470293623	5.76%

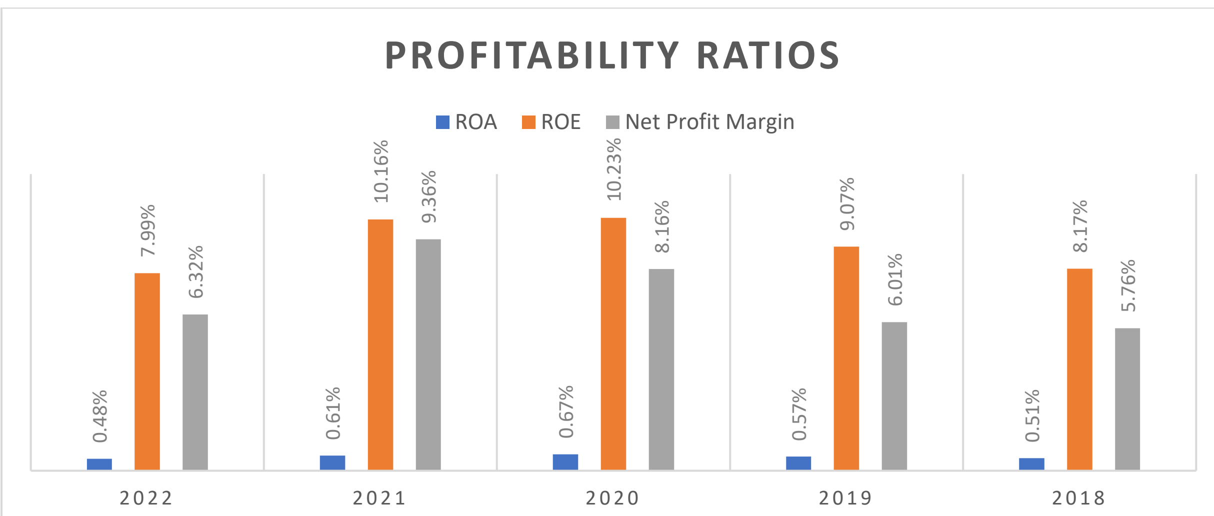

Figure-4

The analysis of Return on Assets (ROA), Return on Equity (ROE), and Net Profit Margin over the past five years offers a comprehensive view of the company's financial health and operational efficiency. Overall 5 year data analysis the graphs show the percentage change of ROA , ROE, Net profit margin that is the compare of 2018 the percentage ROA .51%,ROE 8.1% that decrease in 2022 is .48% and 7.99% but the net profit margin was 5.76% in 2018 that is increased in 2022 is 6.32 that is good for the Bank.

Return on Assets (ROA): The ROA has generally been decreasing, indicating that the company is becoming less efficient in utilizing its assets to generate profits. This trend might suggest that the company needs to reassess how it deploys its assets or perhaps reduce asset base inefficiencies.

Optimize Asset Utilization: Review and optimize the asset base to ensure that assets are being used most efficiently to generate higher returns.

Investment in High-Return Assets: Consider investing in high-return assets that could improve overall asset productivity.

Return on Equity (ROE): The ROE shows a declining trend over the last three years, which indicates a decrease in the profitability relative to shareholders' equity. This could imply that the company is not generating enough profit from the shareholders' investments.

Improve Profitability: Focus on strategies that can enhance profitability, such as cost control, increasing operational efficiency, or entering new markets.

Enhance Equity Utilization: Efficiently manage and utilize equity to ensure higher returns for shareholders.

Net Profit Margin: The Net Profit Margin has decreased significantly in 2022 compared to 2021. Although there was an improvement from 2018 to 2021, the sharp decline in 2022 suggests issues in maintaining profitability.

Cost Management: Implement effective cost management strategies to control expenses and improve profit margins.

Revenue Growth: Focus on growing revenue streams through diversification, innovation, and expanding market reach.

Profitability Analysis: Conduct a detailed analysis to identify the reasons behind the decline in profit margins and address those issues promptly.

By addressing these areas, the company can improve its financial health and ensure sustainable growth in the long term.

4.4 Solvency Ratio

Bank solvency ratios are used to assess the ability of banks are to handle long-term debt and maintain stability in their finances. By comparing the bank's capital to its total risk-weighted assets, it evaluates the bank's ability to withstand losses and continue operating. For stakeholders and regulators to assess the bank's risk management procedures and overall financial health, this ratio is essential.

Recordation forms some article about Solvency Ratio:

Regular stress testing and scenario analysis should be conducted to assess the impact of adverse economic conditions on solvency ratios. This helps in proactive risk management and maintaining adequate capital reserves. Johnson, **D., & Kim, S. (2019).** Enhancing transparency in financial reporting and maintaining high levels of regulatory capital can improve market confidence and ensure long-term solvency. **Patel, R., & Singh, M. (2021).**

4.4.1. Financial Leverage

Years	Financial Leverage= Total Assets/ Total Equity	Ratio
2022	346,556,213,151/20,772,704,809	16.68
2021	335,351,203,372/20,241,848,075	16.57
2020	296,855,685,063/19,435,609,111	15.27
2019	286,437,025,931/17,895,955,570	16.01
2018	275,397,025,325/17,249,109,680	15.97

The last five years' financial leverage ratio, Dhaka Bank PLC, can be obtained by the total of assets divided by the total of equity, where one can understand the percentage of debt against the equity. Here are the details of these figure:

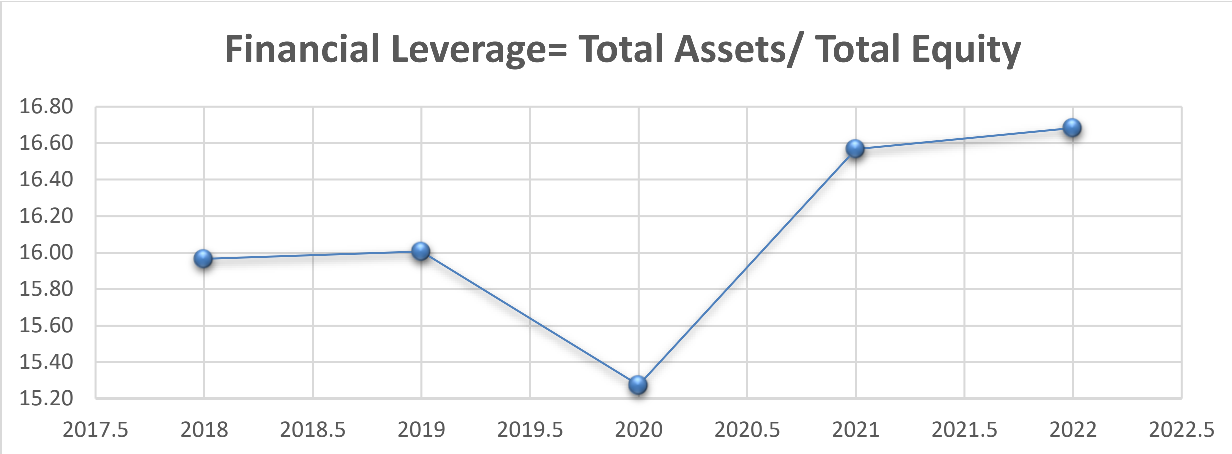

Figure-5

Over the past five years, Dhaka Bank PLC's financial leverage ratio has marginally increased from 15.97 in 2018 to 16.68 in 2022. This indicates a consistent use of more debt relative to equity.

Comparing Benchmarks: A bank that relies more on debt to finance its assets will have a higher financial leverage ratio, which can magnify both returns and risks. For banks, a financial leverage ratio between 10 and 20 is typical. Ratios significantly higher than this may indicate a higher financial risk because of the ratio is 15.97 to 16.68 over the past 5 years.

Moderate to High Leverage: Based on financial leverage ratios of 15.97 to 16.68 over the past five years, Dhaka Bank PLC is classified as moderately to highly leveraged. This level of leverage is common among banks, which frequently rely on borrowing to support their operations and growth.

Increasing Trend: The steady rise in the financial leverage ratio suggests an increasing reliance on debt. This elevates the bank's financial risk, even though it may result in better returns on equity, particularly if the economy worsens.

Overall Evaluation: A five-year analysis of Dhaka Bank PLC's financial leverage shows a consistent and relatively high level of leverage. The gradual increase indicates a strategic use of debt to support expansion. To ensure resilience against financial stress, the bank must regularly monitor its debt levels. Although the financial leverage ratio is high, it remains within the typical range for banks, indicating it is not excessively high for the industry.

4.4.2 Debt Ratio= Total Debt/ Total Asset

Years	Debt Ratio= Total Debt/ Total Asset	Ratio
2022	242,979,711,012/347,693,066,062	71%
2021	205,178,353,093/296,855,685,063	69%
2020	205,178,353,093/296,855,685,063	69%
2019	204,164,912,265/286,437,025,931	71%
2018	196,873,848,389/275,397,025,325	71%

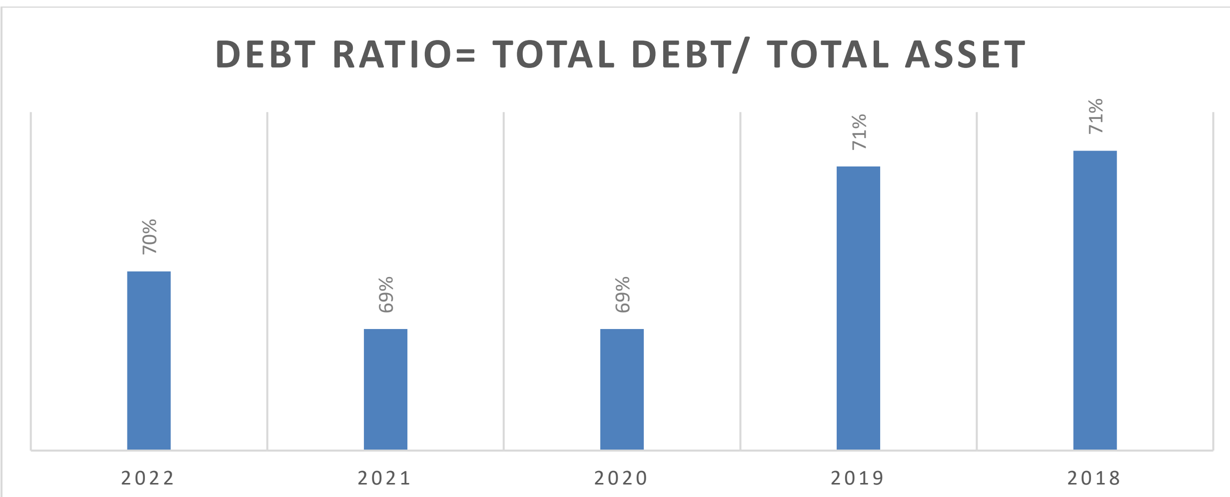

Figure-6

The Debt Ratio for Dhaka Bank PLC has shown relative consistency over the past five years, fluctuating slightly between 69% and 71%. This steadiness suggests that the bank has maintained a stable level of debt compared to its total assets.

Benchmark Comparison: A Debt Ratio of 70% or higher generally signifies that a substantial portion of the bank's assets is financed through debt. While such a high ratio can enhance leverage and potentially yield higher returns, it also indicates elevated financial risk, especially during adverse economic conditions.

Moderate Risk: The consistent Debt Ratios around 69-71% imply that Dhaka Bank PLC is moderately leveraged. Although this level of debt is not unusually high for banks, it does highlight a significant dependence on borrowed funds.

Stable Financial Structure: The stability in the Debt Ratio suggests that the bank has effectively managed its debt levels, avoiding substantial increases or decreases. This stability can be viewed as an indicator of prudent financial management.

Overall Assessment: The five-year analysis of the Debt Ratio reveals that Dhaka Bank PLC maintains a relatively high but stable level of debt. This consistency indicates a deliberate financing strategy, leveraging its assets to generate returns while managing associated risks. Nonetheless, the high debt ratio underscores the necessity for vigilant monitoring to ensure the bank can fulfill its debt obligations, particularly in challenging economic times.

4.4.3. Proprietary Ratio = (Total Equity/ Total Assets)

Years	Proprietary Ratio= Total Equity/ Total Assets	Ratio
2022	20,772,704,809/346,556,213,151	5.99%
2021	20,241,848,075/335,351,203,372	6.40%
2020	19,435,609,111/296,855,685,063	6.55%
2019	17,895,955,570/286,437,025,931	6.25%
2018	17,249,109,680/275,397,025,325	6.26%

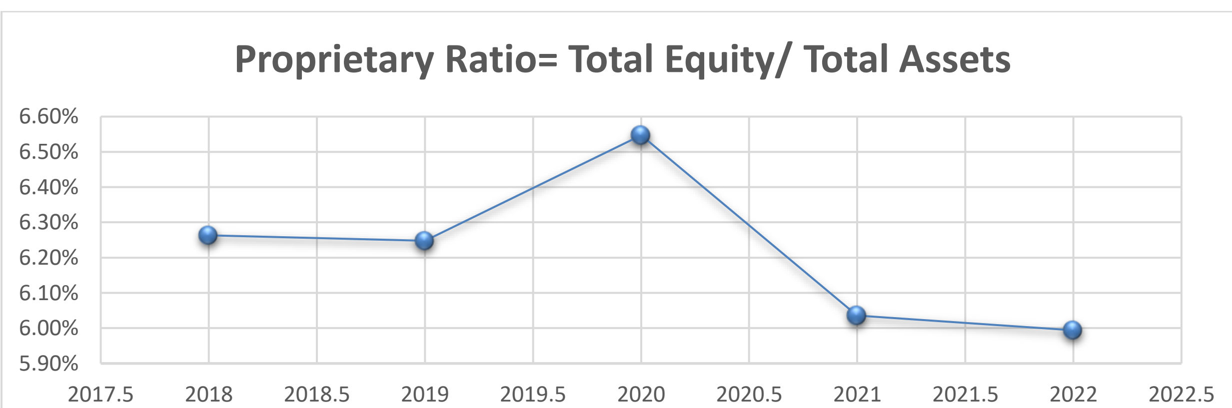

Figure-7

Dhaka Bank PLC 5-Year Proprietary Ratio Analysis:

2022: Proprietary Ratio = 5.99%

• Interpretation: Total equity represents 5.99% of the bank's total assets. It shows a small proportion of financing by equity compared to total assets.

2021: Proprietary Ratio = 6.40%

• Interpretation: The ratio has increased a little to 6.40%, which implies that a slight increase in equity financing by total assets of the bank occurred in comparison with 2022.

2020: Proprietary Ratio = 6.55%

• Interpretation: It has increased even more to 6.55%, illustrating a continue improvement of the bank's equity's position by the relative ratio of total assets..

2019: Proprietary Ratio = 6.25%.

• Interpretation: The ratio decreased slightly to 6.25%, which indicates a minor reduction in the proportion of equity financing in comparison with 2020.

2018: Proprietary Ratio = 6.26%.

Interpretation: The ratio remained relatively stable at 6.26%, which suggests consistent levels of equity financing each year.

For a period of five years, Dhaka Bank PLC's proprietary ratio has varied from 5.99% to 6.55%. The proprietary has been relatively stable, which typically indicates a positive fact, and stable tendency for equity levels contrasting with total asset figure. However, owing to the relatively low electricity figure to total assets, the debt and other financial sources supported the total asset figure.

DHAKABANK PLC.

4.5 Balance Sheet of Dhaka Bank PLC: (2018-2022)

Balance Sheet					
YEARS	**2022**	**2021**	**2020**	**2019**	**2018**
PROPERTY AND ASSETS					
Cash	13,420,667,807	19,838,425,649	17,403,435,921	17,638,558,211	15,451,545,066
Balance with other banks and financial instit	14,702,011,051	22,211,041,163	18,148,195,557	13,997,425,517	17,643,847,041
Money at call on short notice	280,000,000	5,650,000,000	700,000,000	11,300,000	11,300,000
Investments	53,369,835,960	49,124,077,080	42,360,850,681	39,732,544,794	30,641,895,095
Loans, advances and lease/investments	239,685,748,429	215,458,643,693	198,641,827,366	195,486,867,990	180,499,370,364
Fixed assets including premises, furniture an	8,941,524,752	8,954,869,250	9,033,037,264	5,087,739,886	4,915,963,776
Other assets	16,156,425,152	14,114,146,537	10,568,338,274	14,482,589,531	26,209,937,949
Non-banking assets					23,166,033
Total Assets	**346,556,213,151**	**335,351,203,372**	**296,855,685,063**	**286,437,025,931**	**275,397,025,325**
LIABILITIES and CAPITAL					
Liabilities					
Borrowings from other banks, financial instit	35,385,087,024	44,565,190,826	33,057,630,083	27,845,215,972	26,793,730,174
Deposits and other accounts	243,427,305,558	230,417,348,446	205,178,353,093	204,164,912,265	196,873,848,389
Bond	5,020,000,000	5,200,000,000	6,800,000,000	7,400,000,000	8,000,000,000
Other liabilities	41,951,115,760	34,926,816,025	32,384,092,776	29,130,942,124	26,480,337,082
Total Liabilities	**325,783,508,342**	**315,109,355,297**	**277,420,075,952**	**268,541,070,361**	**258,147,915,645**
Capital/Shareholders' Equity					
Total Shareholders' Equity	20,772,704,809	20,241,848,075	19,435,609,111	17,895,955,570	17,249,109,680
Total Liabilities and Shareholders' Equity	**346,556,213,151**	**335,351,203,372**	**296,855,685,063**	**286,437,025,931**	**275,397,025,325**

4.6 Income Statement of Dhaka Bank PLC: (2018-2022)

Income Statement

YEARS	2022	2021	2020	2019	2018
Interest income/profit on investments	16,210,256,283	14,913,888,936	17,631,263,869	21,539,337,422	18,973,652,799
Interest/profit paid on deposits and borrow	12,801,155,909	10,394,221,944	13,954,163,722	17,034,273,799	13,413,830,494
Investment income	3,885,346,738	3,445,847,615	3,768,428,684	1,705,658,785	2,327,054,545
Commission, exchange and brokerage	5,949,131,021	3,335,726,780	2,760,604,581	3,485,489,651	2,966,946,606
Other operating Income	227,974,940	257,236,937	194,893,380	276,173,352	202,639,673
Total Revenue	**26,272,708,982**	**21,952,700,268**	**24,355,190,514**	**27,006,659,210**	**24,470,293,623**
Net interest income	3,409,100,374	4,519,666,992	3,677,100,147	4,505,063,622	5,559,822,305
Total operating income (a)	13,471,553,073	11,558,478,323	10,401,026,792	10,972,385,411	11,056,463,128
Net Income	16,880,653,447	16,078,145,315	14,078,126,939	15,477,449,033	16,616,285,433
Total operating expenses (b)	6,576,205,416	4,930,616,274	5,032,413,233	4,786,944,001	4,395,266,939
Profit before provision and taxes (c = (a-b))	6,895,347,657	6,627,862,049	5,368,613,559	6,185,441,410	6,661,196,190
Total provision (d)	2,999,892,777	2,513,732,358	2,269,739,436	3,002,885,043	3,630,508,288
Total Profit before taxes (c-d)	3,895,454,880	4,114,129,692	3,098,874,123	3,182,556,367	3,030,687,902
Net Profit after Taxation	**1,659,842,961**	**2,055,727,658**	**1,988,104,861**	**1,623,569,365**	**1,409,628,441**
Earning per share (EPS)	**1.75**	**2.16**	**2.09**	**1.90**	**1.65**
Net profit after tax attributable to:					
Equity holders of DBL		2,055,727,658	1,988,109,050	1,623,569,365	1409628441
Non-controlling interest			-4,189	5,227	5,050
		2,055,727,658	1,988,104,861	1,623,574,592	1,409,633,491
Profit available for distribution					
Surplus in profit and loss account from prev	1,631,778,599	1,514,780,946	1,618,562,389	1,432,118,714	1,502,345,228
Net profit for the period	1,659,842,961	2,055,727,658	1,988,109,050	1,623,564,144	1,409,623.39
	3,291,621,560	**3,570,508,604**	**3,606,671,439**	**3,055,682,859**	**2,911,968,620**
Appropriations					
Statutory reserve	409,983,343	822,825,938	636,386,869	620,137,790	588,731,789
Investment Fluctuation Fund				4,400,000	3,000,000
General reserve			8,100,000		
Dividends etc.	1,139,549,704	1,075,046,885	853,211,810	812,582,680	902,869,650
Start-up fund	16,598,430	40,857,182			
Surplus in profit and loss account	1,725,490,083	1,631,778,599	2,108,972,761	1,618,562,389	1,417,367,181
	3,291,621,560	**3,570,508,604**	**3,606,671,439**	**3,055,682,859**	**2,911,968,620**

4.5.1 Horizontal Analysis of Balance Sheet (2018-2022)

The balance sheet of a bank must be horizontally analyzed in order to evaluate financial performance and spot patterns over time. In order to maintain sustainable profitability and competitiveness, banks should strive for a consistent yearly growth rate in their loan portfolios of roughly 5-7%, according to Martin (2022) in the paper "Tracking Financial Trends through Horizontal Analysis" (Martin, 2022). Banks should use horizontal analysis to identify trends in revenue, expenses, and profits over multiple periods. This can help in forecasting future performance and making informed strategic decisions. White, J., & Brown, T. (2020). Combining horizontal and vertical analysis provides a comprehensive view of financial health, enabling banks to better understand changes in financial ratios and their implications over time. Kim, L., & Thompson, A. (2021).

Horizontal Analysis of Balance Sheet					
YEARS	**2022**	**2021**	**2020**	**2019**	**2018**
PROPERTY AND ASSETS					
Cash	87%	128%	113%	114%	100%
Balance with other banks and financial institutions	83%	126%	103%	79%	100%
Money at call on short notice	2478%	50000%	6195%	100%	100%
Investments	174%	160%	138%	130%	100%
Loans, advances and lease/investments	133%	119%	110%	108%	100%
Fixed assets including premises, furniture and fixtures	182%	182%	184%	103%	100%
Other assets	62%	54%	40%	55%	100%
Non-banking assets	0%	0%	0%	0%	100%
Total Assets	126%	122%	108%	104%	100%
LIABILITIES and CAPITAL					
Liabilities					
Borrowings from other banks, financial institutions an	132%	166%	123%	104%	100%
Deposits and other accounts	124%	117%	104%	104%	100%
Bond	63%	65%	85%	93%	100%
Other liabilities	158%	132%	122%	110%	100%
Total Liabilities	126%	122%	107%	104%	100%
Capital/Shareholders' Equity					
Total Shareholders' Equity	120%	117%	113%	104%	100%
Total Liabilities and Shareholders' Equity	126%	122%	108%	104%	100%

Horizontal analysis is the procedure of checking the health status of an institution by comparing the financial statements over the period. Below is a well-detailed horizontal analysis of Dhaka

Bank PLC's balance sheet between 2018 and 2022. The based year is 2018 compare with others year in 2022 because of COVID-19 the financial performance is drop and liability increase. Overall assets are increase in 2022 that is 126% also the shareholders equity are increase from 20% increase from the previous year 2018.

Property and Assets

1. Cash

- ✓ It increased by 128% in 2021 over 2018 but fell to 87% in 2022.
- ✓ Cash flowed up and down, with a peak in its balance in 2021 at 19,838 million and then dropped to 13,421 million in 2022.

2. Balancing with other banks and financial institutions:

- ✓ The fluctuation of this asset class was entirely revealed, wherein it peaked in 2021 at 126% and then lowered to 83% in 2022.
- ✓ The balance peaked at 22,211 million in 2021 before declining to 14,702 million in 2022.

3. Money at call on short notice:

- ✓ There are significant increases in 2021 (50000%) and 2022 (2478%), which usually corresponds to huge short-term investments or liquidity needs.
- ✓ Peaked at 5,650 million in 2021 but underwent a drastic decrease to 280 million in 2022.

4. Investments

- ✓ Showed consistent growth over the years, reaching 174% in 2022.
- ✓ Investment values developed continuously, reaching 53,370 million in 2022.

5. Loans, Advances, and Lease

- ✓ Steady growth noted to be at 133% for 2022.
- ✓ Total loans and advances increased to 239,686 million by 2022.

6. Tangible assets, that is, premises, furniture and fixtures:

- ✓ Consistent appreciation at about 182% of the value in 2018 from 2019 to 2022.

- ✓ Total fixed assets remained almost consistent, varying to about 8,942 million in 2022.

7. Miscellaneous other assets

- ✓ All other assets diminution by 62 percent from the 2018 value to 2022.
- ✓ The value dropped dramatically to 16,156 million in 2022 from 26,210 million in 2018.

8. Non-Banking Assets

- ✓ Written off in 2019 with nil value recorded as of now.

9. Total Assets

- ✓ Total assets of the bank continuously grew and in 2022 reached 126% of the value of 2018.
- ✓ Total assets of 346,556 million by the year 2022.

Liability and Equity

1. Borrowings from other banks, financial institutions, and agents:

- ✓ Ranged significantly, with its maximum value reached in 2021 at 166% and minimized to 132% in 2022.
- ✓ Borrowings accrued to a total of 35,385 million in 2022.

2. Checking and Other Accounts:

- ✓ Steady evident growth—up to 124% by 202.
- ✓ Total deposits surged to 243,427 million in 2022.

3. Bond

- ✓ Decrease observed in the past few years up to 63% by 2022.
- ✓ The value of bonds has been reduced to 5,020 million in 2022 from 8,000 million in 2018.

4. Miscellaneous Liabilities

- ✓ High jump, 158% by the year 2022.

- ✓ Other liabilities reached 41,951 million this year, 2022.

5. The total of Equity Shareholders

- ✓ The increase rates are constant, reaching their maximum value at 126%.
- ✓ Total liabilities were up to 325,784 million in 2022.

• Total Equity

- ✓ Increasing trend toward reach 120% in 2022.
- ✓ Equity attributable to shareholders grew to 20,773 million in 2022.

In aggregate, the horizontal analysis indicates a high degree of volatility within some asset categories, including cash and short-term investments, compared to consistent growth trends reflected in loans and advances and total assets. Liabilities were constantly growing, spurred by remarkable growth in deposits and other liabilities, with a noticeable decrease in bond values. Shareholder equity also showed a steady rise, reflecting overall growth and stability of the bank's financial position.

4.6.1 Horizontal Analysis of Income Statement (2018-2022)

Horizontal Analysis of Income Statement

YEARS	2022	2021	2020	2019	2018
Net interest income	61%	81%	66%	81%	100%
Total operating income (a)	122%	105%	94%	99%	100%
Total operating expenses (b)	150%	112%	114%	109%	100%
Profit before provision and taxes (c = (a-b))	104%	99%	81%	93%	100%
Total provision (d)	83%	69%	63%	83%	100%
Total Profit before taxes (c-d)	129%	136%	102%	105%	100%
Net Profit after Taxation	118%	146%	141%	115%	100%
Earning per share (EPS)	**1.75**	**2.16**	**2.09**	**1.90**	**1.65**

Horizontal analysis is a technique applied to financial data for a business entity over more than one accounting period to determine if the amounts contain increases or decreases concerning changes in time. Here the based year is 2018 the result shows in 2022 there is low percentage of net profit that is 118% that is very low by compare with others past years. And also, the EPS is decreased in 2022 that is 1.17 and highest EPS was 2.16 in 2021. This is an application of horizontal analysis to Dhaka Bank PLC's income statement between 2018 and 2022.

Income Statement Analysis

1. Net Interest Income:

- ✓ There was a drastic fluctuation in net interest income over the years.
- ✓ The net interest income decreased by 61 percent from 5,560 million in 2018 to 3,409 million in 2022. The most significant drop was in 2020 and 2022.

2. Total Operating Income:

- ✓ The total operating income increased monotonically and reached 122% of the value 2018 at the end of 2022.
- ✓ The operating income increased from 11,056 million in 2018 to 13,472 million in 2022. This represents a positive growth of the bank's overall revenue.

3. Overall Operating Expenses:

- ✓ Operating expenses increased substantially, such that by 2022, they were at 150% of their 2018 value.
- ✓ Operating expenses rose from 4,395 million in 2018 to 6,576 million in 2022, reflecting increased costs involved during the bank's operation.

4. Profit Before Provision and Taxes

- ✓ Cost to income before provision and taxes was relatively stable, reaching its peak at 104% in 2022 compared to the base year of 2018.
- ✓ There has been a minor increase from 6,661 million in 2018 to 6,895 million in 2022, with inevitable fluctuations throughout the journey.

5. Total Provision

- ✓ Overall provisions declined to 83% value come 2022.
- ✓ Provisions fell from 3,631 million in 2018 to 2,999 million in 2022, signifying reduced losses that could be expected or lousy assets.

6. Gross Profit Before Taxes:

- ✓ Profit before tax increased by 29% over the five years.

- ✓ This profit grew from 3,031 million in 2018 to 3,895 million in 2022, the highest increase being in 2021 at 136%.

7. Net Profit After Taxation

- ✓ Net profit after taxation increased on overall terms, and amounted to 118% of the value in 2018 by 2022.
- ✓ Net profit increased from 1,410 million in 2018 to 1,660 million in 2022, peaking considerably with significant fluctuations at 146% in 2021.

8. Earnings Per Share (EPS)

- ✓ EPS increased from 2018 to 2020 but has declined since 2022.
- ✓ EPS has grown from 1.65 in the year 2018 to 2.16 in the year 2021 and is falling to 1.75.

9. Net profit after tax attributable to equity holders of DBL:

- ✓ This section follows the same trend as the net profit after tax, where it shows an interesting peak in 2021.
- ✓ The attributable profit was upward from 1,410 million in 2018 to 2,056 million in 2021 before dropping to 1,660 million in 2022.

10. Profit Available for Distribution

- ✓ The surplus in profit and loss account from the previous year and the net profit for the period together increased to 3,292 million in 2022.
- ✓ Signifying a general increase in the distributable profit from the five years.

Overall, Dhaka Bank PLC performed mixedly regarding net interest income, operating expenses, and profits. The bank had increased its total operating income and net profit after taxation. Fluctuations in the net interest income, as well as increasing operating expenses, may be showing weak areas that need strategic attention. However, with a consistent growth level of the total operating income and profit before tax, it shows that the business underneath is growing all the same.

4.5.2 Vertical Analysis of Balance Sheet (2018-2022)

Vertical analysis of a bank's balance sheet is essential for understanding the structure and stability of its financial position. According to Smith (2023). Smith recommends that banks should aim for at least 20% of their total assets to be in the form of cash and cash equivalents, ensuring sufficient liquidity to meet short-term obligations. The study also emphasizes the importance of equity capital, suggesting that a minimum of 10% of total assets should be funded through equity to cushion against potential losses and enhance financial stability (Smith, 2023).

Vertical Analysis of Balance Sheet

YEARS	2022	2021	2020	2019	2018
PROPERTY AND ASSETS					
Cash	4%	5.92%	5.86%	6.16%	5.61%
Balance with other banks and financial institution	4%	6.62%	6.11%	4.89%	6.41%
Money at call on short notice	0%	1.68%	0.24%	0.00%	0.00%
Investments	15%	14.65%	14.27%	13.87%	11.13%
Loans, advances and lease/investments	69%	64.25%	66.92%	68.25%	65.54%
Fixed assets including premises, furniture and fixtu	3%	2.67%	3.04%	1.78%	1.79%
Other assets	5%	4.21%	3.56%	5.06%	9.52%
Non-banking assets	0%	0.00%	0.00%	0.00%	0.01%
Total Assets	100%	100.00%	100.00%	100.00%	100.00%
LIABILITIES and CAPITAL					
Liabilities					
Borrowings from other banks, financial institution	10%	13.29%	11.14%	9.72%	9.73%
Deposits and other accounts	70%	68.71%	69.12%	71.28%	71.49%
Bond	1%	1.55%	2.29%	2.58%	2.90%
Other liabilities	12%	10.41%	10.91%	10.17%	9.62%
Total Liabilities	94%	93.96%	93.45%	93.75%	93.74%
Capital/Shareholders' Equity					
Total Shareholders' Equity	6%	6.04%	6.55%	6.25%	6.26%
Total Liabilities and Shareholders' Equity	100%	100.00%	100.00%	100.00%	100.00%

The following information shows the detailed vertical analysis of the balance sheet of Dhaka Bank PLC from 2018 to 2022. Vertical analysis is conducted to determine the percentage of each amount in total assets or total liabilities and shareholders' equity. The vertical analysis of balance sheet shows that the shareholder equity is decrease by comparison of 2018 to 2022 that is 6% but that was 6.26% in 20218. Also, overall assets are also decreasing other hand the liability of Bank are increased by comparison of 2018 to 2022. Following is the vertical analysis:

Vertical Analysis of Balance Sheet

Property and Assets

1. Cash

- ✓ Averages 4-6% of total assets in the past few years.
- ✓ The absolute cash value has varied, peaking this year in 2021 at BDT 19,838,425,649.

2. Balances Maintained with Other Banks and Financial Institutions

- ✓ Represents 4-7% of aggregate assets.
- ✓ Peak marked in 2021 with an amount of BDT 22,211,041,163, confirming the strategic allocation in the year.

3. Money at Call on Short Notice:

- ✓ A negligible amount of the total holdings (0-2%).
- ✓ Relevance started only in 2021 with BDT 5,650,000,000.

4. Investments

- ✓ Represents 11-15% of total assets. A significant increase over absolute terms can be noticed.
- ✓ Investments peak at a value of 53,369,835,960 BDT in 2022.

5. Loans, Advances, and Lease/Investments:

- ✓ Single most significant asset component— between 64 and 69 percent of total assets.
- ✓ Gradual increase showing the loan emphasis of the bank where it reached the maximum in 2022 valued at BDT 239,685,748,429.

6. Tangible Fixed Assets Premises, Furniture, and Fixtures :

- ✓ Steadily been around 2-3% of total assets.
- ✓ Small fluctuations in absolute value, very few variations, generally keeping the investment in fixed assets quite stable.

7. Other Assets

- ✓ Ranges from 4-10% of total assets.
- ✓ Peaked in 2018 at the highest proportion and has stabilized around 4-5%.

8. Non-banking Assets:

- ✓ Only present in 2018, otherwise does not appear.

Liabilities and Capital

1. Loans obtained from other banks, financial institutions, and agencies

- ✓ Accounts for 10-13% of total liabilities.
- ✓ Maximum value in 2021 at BDT 44,565,190,826, showcasing the year with the highest borrowings.

2. Deposit and Other Accounts:

- ✓ This is the major liability component of their total liabilities, around 69-71%.
- ✓ Indicates a continuous growth in absolute values, reaching a peak of BDT 243,427,305,558 in 2022.

3. Bond

- ✓ A small portion and accounts for only 1-3% of the total liabilities.
- ✓ Markedly declining trend over the recent years.

4. Other Liabilities

- ✓ It represents 10-12% of the total liabilities.
- ✓ The trend in absolute values is growing by the chart, with the maximum value appearing in 2022 amounting to BDT 41,951,115,760.

5. Total Liabilities

- ✓ Always at about 93-94% of total assets.
- ✓ Demonstrates a stable liability structure through the years.

6. Total Equity

- ✓ Accounts for 6-7 % of the total assets.
- ✓ Gradual increase in absolute values reaching a peak of BDT 20,772,704,809 in 2022, showing an increasing equity base.

4.6.2 Vertical Analysis of Income Statement (2018-2022)

Vertical analysis is an important tool that external stakeholders use to assess the bank's financial health as well as internal management for strategic decision-making.

Vertical analysis is a useful tool for banks to track and manage their operating costs in relation to their revenue. Banks can improve their operating efficiency and profitability by keeping expenses within an ideal range. Johnson, M. & Li, H. (2020). By using vertical analysis, banks can find patterns in non-interest revenue and spending and modify their plans accordingly to have a stable income structure. Patel, A., & Kumar, S. (2019). Frequent vertical analysis can help banks make strategic decisions, maintain competitiveness, and measure their financial performance against industry norms. Thompson, R., & Green, P. (2021).

Vertical Analysis of Income Statement

YEARS	2022	2021	2020	2019	2018
Interest income/profit on investments	62%	68%	72%	80%	78%
Interest/profit paid on deposits and borrowir	49%	47%	57%	63%	55%
Investment income	15%	16%	15%	6%	10%
Commission, exchange and brokerage	23%	15%	11%	13%	12%
Other operating Income	1%	1%	1%	1%	1%
Total Revenue	100%	100%	100%	100%	100%
Net interest income	13%	21%	15%	17%	23%
Total operating income (a)	51%	53%	43%	41%	45%
Net Income	64%	73%	58%	57%	68%
Total operating expenses (b)	25%	22%	21%	18%	18%
Profit before provision and taxes (c = (a-b))	26%	30%	22%	23%	27%
Total provision (d)	11%	11%	9%	11%	15%
Total Profit before taxes (c-d)	15%	19%	13%	12%	12%
Net Profit after Taxation	6%	9%	8%	6%	6%
Earning per share (EPS)	**1.75**	**2.16**	**2.09**	**1.90**	**1.65**

Vertical income statement analysis presents each item as a percentage of total revenue. This type of analysis helps recognize over time the relative importance and trends of different income and expense components. By the vertical comparison of 2018 to 2022 there shows that in 2022 reduce the overall percentage for that the net profit also decrease that is 6% in 2022 but there vertical analysis the percentage was 2.16 in 2021 that main reason of COVID-19 pandemic situation that effect overall industry finance.

Analysis of Key Elements:

1. Income/Profit on Investments

- ✓ Represents the most significant percentage of the total revenue, between 62% to 80%.
- ✓ As of 2019, it was at a peak of 80%, indicating its heavy dependency on interest income.
- ✓ A decreasing trend from 2019 to 2022 reflects either interest rate fluctuation or loan volumes.

2. Interest/ Profit Paid on Deposits and Borrowings:

- ✓ Ranges from 47% to 63% of total revenue.
- ✓ Interest cost decreased by more than half beginning in 2019, indicating an improvement in interest expense management or a change in the bank's funding mix.

3. Income from investments

- ✓ A consistent revenue driver with a value between 6% and 16%.
- ✓ With the investments going on, significant growth for 2019 and 2020.

4. Commission, Exchange, and Brokerage

- ✓ Had increased from 12% in 2018 to 23% by 2022.
- ✓ Strong growth in 2022 to reflect the diversification into fee-based income streams.

5. Other Operating Income:

- ✓ Consistently contributes around 1% to total revenue, indicating a minor role in overall income.

6. Total Revenue:

- ✓ Fluctuations noted, with the peak in 2019 at BDT 27,006,659.
- ✓ The subsequent decline over the following years probably relates to the alteration of economic conditions or strategic shifts in the bank's operations.

7. Net interest income:

- ✓ Represents from 13 to 23% of the top-line revenue.
- ✓ There was a significant drop in 2022, indicating higher interest costs or lower interest revenues.

8. Total Operating Income:

- ✓ Steady around 41% to 53% of the overall revenue.
- ✓ Represents the efficiency of the bank in core operating income generation.

9. Net Income:

- ✓ A huge chunk of the revenue, at its peak, in 2021 at 73%.
- ✓ Consistent drop in percentages from 2021 to 2022.

10. Total Operating Expenses:

- ✓ Corresponds to 18% to 25% of total revenue.
- ✓ Gradual increasing expenses over the years, which are denting the profit margin.

11. Profit Before Provisions and Taxes

- ✓ Accounts for roughly 22% to 30% of total revenue.
- ✓ Fluctuations denote the variability in managing operational efficiency and cost control.

12. Total Provision

- ✓ 9%-15% of total revenue.
- ✓ Provisions peaked in 2018, reflecting prudent provisioning against probable losses.

13. Total Profit Before Taxes:

- ✓ Ranges from 12% to 19% of total revenue.
- ✓ Reflects the general level of profitability before the effects of taxes.

14. Net profit after tax:

- ✓ Represents 6-9% of the total revenue.
- ✓ Shows stability in maintaining net profitability despite fluctuations in revenue and expenses.

15. Earnings Per Share (EPS):

- ✓ EPS values oscillate, showing the profit changes and, thereby, finally the shareholder value changes through the years.

4.7 Altman Z-Score Forecast for Bankruptcy. (Non-manufacturing Company)

Any of the roughly 20 known financial ratios are extremely helpful in detecting certain strengths and weaknesses that impact the overall financial health of the business.

Yet none of the ratios can be used to evaluate the firm's overall power. Dr. Edward I. Altman first published the Z-Score Bankruptcy Predictor in 1968. It is a statistically calculated blend of the most important features. It was initially developed on a sample of industrial companies. However, on non-manufacturing businesses, the formula has been consistently documented to anticipate bankruptcy up to two years before its collapse with 95% precision. Numerous further bankruptcy predictors have been created and released. But none has been as extensively validated and widely used as the Altman Z-Score.

Banks should regularly calculate and monitor their Altman Z-Scores as part of their risk management strategies. By doing so, they can identify early warning signs of financial distress and take proactive measures to mitigate risks. Turner, L., & Wong, J. (2021).

Enhancing the accuracy of the Altman Z-Score by incorporating more recent and relevant financial data can improve its predictive ability for banks. This includes using up-to-date market conditions and industry-specific factors. Chen, Y., & Gupta, R. (2020).

Banks should integrate the Altman Z-Score with other risk assessment tools and financial metrics to get a comprehensive view of their financial health. This holistic approach can provide more robust risk management. Martinez, P., & Robinson, A. (2019).

The original formula is slightly modified to be used in the case of firms that are non-manufacturing and operating in emerging markets. We use only four financial ratios in this model. The four ratios are as follows:

According to Dhaka Bank PLC Statement of Financial Position As at 31 December 2022

Business ratios used	*The formula for the business ratio*
A	**(Current Assets − Current Liabilities / Total Assets** **(4,424,961,245-3,277,206,526/5,486,755,272)** **= 0.209**
B	**Retained Earnings / Total Assets** **(19,316,639/5,486,755,272)** **=0.004**
C	**Earnings Before Interest and Taxes / Total Assets** **(159,501,428/5,486,755,272)** **=0.029**
D	**Book Value of Equity / Total Liabilities** **(2,170,652,259/3,316,103,013)** **= 0.655**

Altman Z-Score:

Z’’ = (6.56*A)+(3.26*B)+(6.72*C)+(1.05*D)

= (6.56*0.209)+(3.26*0.004)+(6.72*0.029)+(1.05*0.655)

= 2.27

Altman Z-Score the score is 2.27 that is not bad for the Bank. That's means the bank in gray zone.

There are mostly 3 zone that are:

- According to this approach, a company is considered to be in the "safe zone" and has a very low chance of declaring bankruptcy if the Z value is higher than 2.6.
- A Z rating of 2.6 to 1.1 indicates that the company is in the "gray zone" with a moderate risk of insolvency.
- It is considered to be in the "distress zone" and has a very high chance of going bankrupt if the Z value is less than 1.1.

According to the **Altman Z-Score Forecast for Bankruptcy formula** using the Z rate is 2.27 that means Dhaka Bank PLC in "Gray Zone" that means Bank is now position on medium not is safe zone. So, Dhaka Bank PLC should be taken worried about that.

The Bangladesh Bank financial health report recently published the there are 9 banks in Bangladesh are in red zone. Of the 54 institutions examined, the Bangladesh Bank has designated 38—including six state-owned banks as weak lenders. The central bank has classified the banks at a time when it plans to combine ten banks by the beginning of 2019.

An internal analysis from Bangladesh Bank states that over two thirds of the nation's banks are currently weak. The "Yellow Zone" banks are feeble, the "Red Zone" banks are the weakest or most impoverished, and the "Green Zone" banks are in excellent standing.

Chapter 5

Findings, Recommendations & Conclusion

5.1 Findings

Stable Liquidity: Consistent Current and Quick Ratios above 1 indicate good short-term financial health and liquidity management.

Reasonable Profit Margins: Despite some variability, the bank maintains a positive net profit margin, indicating profitability.

Growth Trends: Determine which areas show growth and which are declining.

Asset Utilization: Evaluate how effectively the bank is using its assets.

Stable Income from Commission and Brokerage: Consistent non-interest income shows good diversification in revenue streams.

Growth in Total Assets: Continuous growth in assets reflects business expansion and increased capacity.

Profitability: Assess whether net profit and EPS are increasing or decreasing.

Increase in Shareholders' Equity: Indicates financial strength and capacity to absorb shocks.

Problems:

Increasing Efficiency Ratio: Rising operating expenses relative to net revenue can indicate potential inefficiencies in cost management.

Decreasing ROA and ROE: Lower returns on assets and equity suggest challenges in generating profits from assets and equity.

High Financial Leverage and Debt Ratio: High reliance on debt increases financial risk, especially during economic downturns.

Moderate Altman Z-Score: Indicates potential risk of financial distress, requiring careful monitoring and risk management.

Declining Profits: If net profit after taxation is decreasing.

Poor Asset Management: If certain asset categories are growing disproportionately without corresponding revenue growth.

Increased Liabilities: If liabilities are increasing faster than assets or equity.

Decrease in Net Profit and EPS Post-2021: The decline in net profit and EPS in recent years is a concern for profitability.

High Interest/Profit Paid on Deposits and Borrowings: High costs associated with deposits and borrowings can impact net interest margin.

5.2 Recommendations:

Increasing Efficiency Ratio: Implement cost-cutting measures, optimize operational processes, and leverage technology to automate routine tasks. Focus on improving productivity and reducing wasteful expenditures.

Decreasing ROA and ROE: Enhance asset utilization by identifying underperforming assets and redeploying them more effectively. Improve profitability by diversifying revenue streams and focusing on high-margin products and services.

High Financial Leverage and Debt Ratio: Reduce reliance on debt by improving capital adequacy and focusing on equity financing. Enhance risk management practices to better handle economic downturns and reduce financial vulnerabilities.

Moderate Altman Z-Score: Monitor financial health indicators closely and implement proactive measures to mitigate risks. Strengthen financial resilience by building up capital reserves and improving cash flow management.

Declining Profits: Increase revenue by exploring new markets and customer segments, introducing innovative products, and enhancing customer service. Control costs through strategic sourcing and efficient resource allocation.

Poor Asset Management: Conduct regular reviews of asset performance and ensure alignment with revenue growth. Optimize the asset portfolio by divesting non-core or underperforming assets and reinvesting in high-potential areas.

Increased Liabilities: Improve balance sheet management by maintaining a healthy ratio of assets to liabilities. Focus on reducing unnecessary liabilities and enhancing equity through retained earnings and capital injections.

Decrease in Net Profit and EPS Post-2021: Address factors contributing to declining profitability, such as market competition and operational inefficiencies. Strengthen marketing efforts, enhance customer engagement, and innovate to stay competitive.

High Interest/Profit Paid on Deposits and Borrowings: Optimize the funding mix by focusing on low-cost deposits and reducing reliance on expensive borrowings. Improve the net interest margin by managing interest rate risks and enhancing asset-liability management.

5.3 Conclusion

Based on the financial analysis of Dhaka Bank, several key findings and recommendations emerge. The bank demonstrates stable liquidity with consistent Current and Quick Ratios above 1, indicating sound short-term financial health and effective liquidity management. Profit margins remain reasonable, and non-interest income from commission and brokerage shows good revenue diversification. The bank's total assets continue to grow, reflecting business expansion and increased capacity, while the increase in shareholders' equity indicates financial strength and resilience. However, challenges include an increasing efficiency ratio, suggesting potential inefficiencies in cost management, and declining ROA and ROE, indicating difficulties in generating profits from assets and equity. High financial leverage and debt ratio pose significant financial risks, particularly during economic downturns, and a moderate Altman Z-Score points to potential financial distress. Additionally, declining profits, poor asset management, increased liabilities, and high costs associated with deposits and borrowings are areas of concern.

To address these issues, Dhaka Bank should implement cost-cutting measures, optimize operational processes, and leverage technology to enhance productivity and reduce waste. Improving asset utilization by redeploying underperforming assets and focusing on high-margin products can boost profitability. Reducing reliance on debt through better capital adequacy and equity financing will lower financial risks. Proactive monitoring and management of financial health indicators, coupled with building up capital reserves and enhancing cash flow management, can mitigate the risk of financial distress. Exploring new markets and customer segments, introducing innovative products, and enhancing customer service can help increase revenue, while strategic sourcing and efficient resource allocation can control costs. Regular reviews of asset performance and alignment with revenue growth will optimize the asset portfolio, and better balance sheet management can maintain a healthy ratio of assets to liabilities. Strengthening marketing efforts, customer engagement, and innovation will address declining net profit and EPS. Finally, optimizing the funding mix to focus on low-cost deposits and managing interest rate risks can improve the net interest margin.

By addressing these challenges through targeted recommendations, Dhaka Bank can enhance its operational efficiency, profitability, and overall financial stability, positioning itself for sustainable growth in the competitive banking industry.

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Appendices