

INTERNSHIP REPORT

ON

**The impact of Basel III implementation on the financial performance of the
Banking Industry in Bangladesh**

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Letter Of Transmittal

20th April, 2026

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Subject: Submission of Internship Report on **“The impact of Basel III implementation on the financial performance of the banking industry in Bangladesh”**

Honorable Sir,

With due respect, I would like to submit my internship report titled “The impact of Basel III implementation on the financial performance of the banking industry in Bangladesh”, which has been prepared as a partial fulfillment of my degree requirements.

In this study, I have attempted to analyze the relationship between credit risk factors such as Non-Performing Loans (NPL), Loan Loss Provisions (LLP), Capital Adequacy Ratio (CAR), Loan-to-Deposit Ratio (LDR), and Bank Size with the profitability of the bank. The main objective of this report is to examine how credit risk management influences bank profitability and financial performance.

Working on this report has provided me with valuable practical experience and has allowed me to apply my theoretical knowledge in a real-life banking context. It has also enhanced my understanding of credit risk management and its significance in ensuring financial stability and sustainable banking operations.

I would like to express my sincere gratitude for your valuable guidance, continuous support, and encouragement throughout the preparation of this report. I sincerely hope that this report meets your expectations. I would be grateful if you kindly accept and approve my submission.

Thank you for your kind consideration.

Sincerely yours,

Majbah Uddin

Id No: 12117054

Session: 2020-21

Department of Finance and Banking .

Comilla University, Cumilla.

Supervisor's Declaration

20th April 2026

This is to certify that the research report on “**The impact of Basel III implementation on the financial performance of the banking industry in Bangladesh**” has been completed by Majbah Uddin (Id No: 12117054, Reg No: 12117054, Session: 2020-2021), as partial fulfillment of the requirements for the Bachelor of Business Administration (BBA) degree from the Department of Finance and Banking, Faculty of Business Studies, Comilla University, Cumilla.

This report has been prepared under my supervision and is a result of authentic work carried out successfully.

Signature: _____

Tama Saha

Assistant Professor

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Student's Declaration

I, Majbah Uddin , a student of the Department of Finance and Banking, BBA 8th Batch, bearing ID: 12017054, hereby declare that the research report titled “The impact of Basel III implementation on the financial performance of the banking industry in Bangladesh” represents the result of my own work, conducted under the supervision of Tama Saha, Assistant Professor, Department of Finance and Banking, Comilla University, Cumilla.

I further declare that this report has been prepared for academic purposes as part of the BBA program, and I have used the current data and situation of the organization in this study.

Signature: _____

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Acknowledgement

I would like to express my sincere gratitude to Almighty Allah for granting me the strength, patience, and ability to successfully complete this internship report titled “The impact of Basel III implementation on the financial performance of the banking industry in Bangladesh”

I am deeply indebted to my respected supervisor, Tama Saha, for her` continuous guidance, valuable suggestions, and constructive feedback throughout the preparation of this report. Her support and encouragement have been instrumental in completing this study effectively.

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Furthermore, I am grateful to my teachers, friends, and family members for their constant support, motivation, and encouragement throughout my academic journey. Their inspiration has been a key factor in completing this report successfully.

Finally, I acknowledge all those who have directly or indirectly contributed to the completion of this report.

Internship Certificate



অগ্রণী ব্যাংক পিএলসি

পদুয়ার বাজার শাখা, কুমিল্লা অঞ্চল, কুমিল্লা।

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Ref: ABPLC/Padua/Certificate/111/26

Date: 13/04/2026

TO WHOM IT MAY CONCERN

This is to certify that Majbah Uddin, a student of Comilla University, Department of Finance and Banking, Program: BBA, Roll/ID No: 12117054 has been started his internship program from 04/01/2026 on Agrani Bank PLC, Paduar Bazar Branch, Cumilla. He is sincere, dedicated and dutiful to his work.

I wish him every success in life.

With Regards

 13.04.26

(Mohammad Shah Salim)

AGM & Branch Head
Ass. General Manager & Branch Head
Agrani Bank PLC.
Paduar Bazar Branch, Cumilla.

Certificate of Anti-Plagiarism

It is certified that the Internship Report titled The impact of Basel III implementation on the financial performance of the banking industry in Bangladesh submitted by Majbah Uddin (ID No.12117054) of the Department of Finance and Banking, Comilla University has been examined with the anti-plagiarism tool.

I undertake that:

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- II. The work presented is original and own work of the author i.e. there is no plagiarism. No ideas, processes, results or words of others have been presented as the author's own work.
- III. There is no fabrication of data or results which have been compiled and analyzed.
- IV. There is no falsification by manipulating research materials, equipment or processes, or changing or omitting data or results such that the research is not accurately represented in the research record.

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Place: Cumilla

Majbah Uddin
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Executive Summary

This report examines The impact of Basel III implementation on the financial performance of the banking industry in Bangladesh. The study is conducted using panel data collected from seven commercial banks over a ten-year period from 2015 to 2024. The main objective of the study is to analyze how key financial factors, including Non-Performing Loans (NPL), Capital Adequacy Ratio (CRAR), and Bank Size, influence bank profitability, measured by Return on Assets (ROA).

The study adopts a quantitative research approach and applies several econometric techniques to analyze the data. Initially, descriptive statistics and correlation analysis are used to understand the basic characteristics and relationships among the variables. Subsequently, regression analysis is conducted using Pooled Ordinary Least Squares (OLS), Fixed Effects, and Random Effects models. The Hausman test is applied to determine the most appropriate model for the analysis. In addition, diagnostic tests such as the Variance Inflation Factor (VIF), Breusch–Pagan test, and Wooldridge test are performed to ensure the validity and reliability of the results.

The empirical findings of the study reveal that non-performing loans have a significant negative impact on bank profitability. This indicates that higher credit risk reduces the earning capacity of banks and highlights the importance of effective loan management practices. On the other hand, the capital adequacy ratio shows a positive relationship with profitability, suggesting that well-capitalized banks are more stable and capable of generating higher returns. However, the level of significance indicates that capital adequacy alone is not sufficient to ensure strong financial performance without proper risk management. Furthermore, bank size is found to have a negative effect on profitability, implying that larger banks may experience operational inefficiencies and higher management costs.

The results of the Hausman test indicate that the Random Effects model is more appropriate for this study, suggesting that bank-specific effects are not correlated with the explanatory variables. The diagnostic tests confirm that there are no major econometric issues such as multicollinearity, heteroskedasticity, or autocorrelation, ensuring the robustness of the model.

Based on the findings, the study recommends that banks should focus on improving credit risk management to reduce non-performing loans, maintain optimal capital adequacy levels in line with Basel III requirements, and enhance operational efficiency to improve profitability. Regulatory authorities should also strengthen supervision and ensure compliance with financial regulations to promote stability in the banking sector.

Overall, this study provides valuable insights into the determinants of bank performance in Bangladesh and highlights the importance of maintaining asset quality, adequate capital, and efficient management practices for achieving sustainable financial performance.

Acronym

Acronym	Full Form
NPL	Non-Performing Loans
CRAR	Capital to Risk-Weighted Assets Ratio
ROA	Return on Aseets
BS	Bank Size
LLP	Loan Loss Provision
NIM	Net Interest Margin
PLC	Public Limited Company
SD	Standard Deviation
SME	Small and Medium Enterprise
VIF	Variance Inflation Factor

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Chapter 1

Introduction

1.1 Introduction

Financial stability and economic progress are greatly aided by the banking industry, especially in developing nations like Bangladesh. By mobilising deposits and directing money into profitable ventures, commercial banks act as financial intermediaries, promoting capital creation and economic growth (Demirgüç-Kunt & Huizinga, 1999). As a result, bank performance is critical to the stability of the financial system as a whole and to shareholders. Significant flaws in bank capital structures and risk management procedures were revealed following the 2008 global financial crisis. As a result, the Basel Committee on Banking Supervision introduced the Basel III regulatory framework, which aims to improve risk governance, capital adequacy, and liquidity management to increase bank resilience (BCBS, 2011). To reduce systemic risks and absorb financial shocks, Basel III emphasises maintaining higher-quality capital and stronger capital buffers.

The stability and performance of banks are thought to be significantly influenced by capital sufficiency. A bank's capacity to withstand losses on its risk-weighted assets is measured by the Capital Adequacy Ratio (CRAR). Most people believe that a bank with adequate capital is more stable and less likely to have financial difficulties (Berger, 1995). The connection between profitability and capital sufficiency is still unclear, though. Higher capital levels improve financial stability, but because of decreased leverage and higher compliance costs, they may also impair profitability (Athanasoglou et al., 2008).

The banking industry in Bangladesh has faced several structural issues, including rising non-performing loans (NPLs), poor corporate governance, and inefficient resource allocation. According to Beck et al. (2013), non-performing loans in particular have a significant detrimental impact on bank profitability and financial stability. To improve banks' capital bases and ensure financial soundness, regulatory bodies such as Bangladesh Bank have adopted the Basel III criteria simultaneously.

Furthermore, bank-specific factors such as size also affect financial success. Profitability may be positively affected by economies of scale and diversified operations that larger banks often enjoy. But being too large can also lead to inefficiencies and increased operational risk (Goddard et al., 2004).

Given these intricacies, it is crucial to conduct an empirical analysis of the relationship between

Basel III capital adequacy, other bank-specific factors, and the financial performance of commercial banks in Bangladesh. This study examines the impact of capital adequacy (CRAR), non-performing loans (NPL), and bank size on profitability, as measured by return on assets (ROA), using panel data analysis.

1.2 Background of the Study

The 2008 global financial crisis made it clear that more robust regulatory frameworks are required to guarantee the stability of financial institutions. To improve capital requirements and implement new regulatory standards, such as leverage ratios and liquidity coverage ratios, Basel III was developed as an extension of Basel II (BCBS, 2011).

The banking industry in Bangladesh has recently experienced substantial adjustments. Nonetheless, enduring problems, including a high percentage of non-performing loans and poor financial results, still pose a threat to the industry. NPLs have a major detrimental effect on bank efficiency and profitability, according to studies (Louzis et al., 2012). This has prompted questions about how effectively regulations are improving bank performance.

At the same time, capital adequacy is essential to maintaining banks' financial stability. Banks with sufficient capital can withstand losses and preserve public trust. Empirical research indicates that banks with adequate capital typically exhibit higher profitability and stability (Dietrich & Wanzenried, 2011). However, depending on market conditions and the regulatory framework, the effect of capital adequacy on profitability may vary. Thus, the purpose of this study is to investigate, in the context of Bangladesh, the connection between Basel III capital adequacy and financial performance.

1.3 Problem Statement

Even after Basel III restrictions were put in place, Bangladesh's banking industry still faces significant problems with asset quality and financial performance. The effectiveness of capital controls has come under scrutiny amid rising non-performing loans and declining profitability. Although Basel III's higher capital requirements are intended to improve financial stability, their effects on bank profitability are not immediately apparent. While some studies contend that greater capital adequacy may limit profitability due to decreased lending capacity and higher regulatory expenses, others contend that it enhances financial performance by lowering risk (Athanasoglou

et al., 2008). There is little empirical data on how well Basel III adoption has improved bank performance in Bangladesh. Consequently, the following research issue is the focus of this study: What impact does Basel III capital adequacy have on Bangladeshi commercial banks' financial performance?

1.4 Significance of the Study

For many parties, this study is important. For regulators like Bangladesh Bank assessing the success of Basel III implementation, it offers insightful information. The results provide bank management with recommendations to enhance operational effectiveness and optimise capital structure. While researchers can use this study as a reference for further scholarly research, investors can gain insight into the major factors influencing bank profitability.

1.5 Scope of the Study

Geographic Scope: For many parties, this study is important. For regulators like Bangladesh Bank assessing the success of Basel III implementation, it offers insightful information. The results provide bank management with recommendations to enhance operational effectiveness and optimise capital structure. While researchers can use this study as a reference, geographically, this analysis is restricted to Bangladesh's commercial banking industry. It focuses on a sample of seven commercial banks active in the nation. The availability and consistency of financial data during the study period were taken into consideration while selecting these banks. The results are representative of the traits, regulatory landscape, and operating conditions of the domestic banking sector, as the investigation is limited to Bangladeshi banks. As a result, the findings might not directly apply to banking systems in other nations with distinct economic or regulatory frameworks. Further scholarly research, investors can gain insight into the major factors influencing bank profitability.

Variable Focus: The study focuses on analysing how certain financial factors relate to bank performance. Since return on assets (ROA) is a measure of banks' overall profitability, it is employed as the dependent variable. Non-Performing Loans (NPL), Capital Adequacy Ratio (CRAR), and Bank Size are the independent variables. These variables—credit risk (NPL), financial soundness and regulatory compliance (CRAR), and operational scale (Bank Size)—are chosen to capture important aspects of banking operations. The Tier-1 Capital Ratio was initially

considered, but it was later disregarded due to its strong association with CRAR, which could lead to multicollinearity issues. The study's emphasis on these factors enables clear understanding of how risk, capital sufficiency, and size affect bank performance.

Time Frame: The study spans ten years, from 2015 to 2024. This time range was chosen to capture current trends and changes in the banking industry, particularly regarding the implementation of Basel III regulations. The study's ability to examine both short-term variations and long-term trends in bank performance is made possible by the inclusion of several years. Additionally, by reducing the impact of transient shocks or anomalous observations in any given year, the use of a longitudinal dataset enhances the reliability of the results.

Methodological Scope: This study uses panel data analysis, a quantitative research approach that combines time-series (over several years) and cross-sectional (across various banks) data. Panel data provides increased variability, better estimation efficiency, and more relevant data. A number of econometric methods are used, including the Random Effects Model, the Fixed Effects Model, and Pooled Ordinary Least Squares (OLS). To choose the best model for analysis, the Hausman test is used. To further ensure the validity and robustness of the findings, diagnostic tests, including the Wooldridge test for autocorrelation, the Breusch–Pagan test for heteroskedasticity, and the Variance Inflation Factor (VIF) for multicollinearity, are performed. The dependability of the results is further reinforced by the inclusion of robust standard errors.

Measure of Performance: Return on Assets (ROA) is the primary measure of bank performance used in the study. ROA is a well-known key performance metric in banking research that assesses how effectively a bank uses all its assets to generate profit. It provides a comprehensive measure of operational effectiveness and profitability, making it suitable for cross-bank comparisons. Instead of relying solely on one income-based metric, the study aims to assess banks' overall financial performance by focusing on ROA.

Statement of Scope Limitation: The availability of secondary data, the chosen sample size, and the variables considered restrict the study's scope, yet offer insightful information. These restrictions may affect how widely the results can be applied beyond the chosen banks and time frame.

1.6 Research Questions

1. How does the Capital to Risk-Weighted Assets Ratio (CRAR) affect Bangladeshi commercial banks' financial performance (ROA)?
2. What impact do non-performing loans (NPL) have on commercial banks' profitability (ROA)?
3. How does the financial performance (ROA) of Bangladeshi commercial banks relate to their size?
4. How much does Basel III capital adequacy affect commercial banks' overall financial performance?
5. How well do Bangladeshi commercial banks meet Basel III rules for capital adequacy?

1.7 Objectives of the Study

Overarching goal: This study's primary goal is to examine how Basel III capital requirements affect the financial performance of Bangladeshi commercial banks.

Particular Goals: 1. To examine how the Capital to Risk-Weighted Assets Ratio (CRAR) affects commercial banks' financial performance (ROA).

2. To investigate how Non-Performing Loans (NPL) affect commercial banks' profitability (ROA).
3. To evaluate the connection between financial performance (ROA) and bank size.
4. To assess Basel III capital adequacy's overall impact on Bangladesh's commercial banks' performance.
5. To evaluate how well commercial banks adhere to Basel III's standards for capital adequacy.

Chapter 02

Literature Review

2.1 Literature Review

The banking literature has thoroughly studied the connection between capital sufficiency and bank financial performance, especially in light of regulatory changes and financial stability. Maintaining sufficient capital is crucial for banks operating in a highly regulated environment in order to absorb unforeseen losses and continue operations during challenging economic times. In addition to improving financial stability, capital adequacy affects banks' operational choices and risk-taking habits. According to empirical data, banks with adequate capital typically do better financially because they are less vulnerable to bankruptcy and receive more trust from investors and depositors (Berger, 1995). Additionally, banks with larger capital ratios are typically seen as less risky, which lowers their funding costs and boosts profitability (Demirgüç-Kunt & Huizinga, 1999). These results suggest that capital adequacy is essential to the banking industry's stability and profitability.

Following the 2008 global financial crisis, which revealed significant flaws in bank capital structures and risk management procedures, the significance of capital sufficiency became even more apparent. The Basel Committee on Banking Supervision responded by introducing the Basel III framework, which prioritises stricter risk management procedures, better liquidity norms, and greater capital requirements (BCBS, 2011). The framework adds more buffers to absorb any losses and mandates that banks retain a larger percentage of high-quality capital, such as common equity. These changes are intended to lower systemic risk and increase the banking system's resilience (BCBS, 2011). Although Basel III improves financial stability, there are worries about how it can affect bank profitability because increased capital requirements might restrict lending and raise compliance expenses.

The empirical link between profitability and capital adequacy is complicated and frequently produces contradictory findings. Higher capital adequacy, on the one hand, is linked to better financial performance because of less risk exposure and increased operational effectiveness. Research has demonstrated that banks with adequate capital are more resilient to financial shocks, which enhances their long-term profitability (Dietrich & Wanzenried, 2011). Similarly, by encouraging careful risk management and lowering the possibility of financial hardship, capital sufficiency has been shown to have a favourable impact on bank profitability (Athanasoglou et al., 2008). However, excessive capital needs can have a negative impact on profitability by limiting

prospects for income generation and decreasing leverage. Higher capital banks might use cautious lending practices, which could lower their total returns (Naceur & Kandil, 2009). As a result, stability and efficiency are traded off in the link between capital adequacy and profitability.

Aside from capital sufficiency, asset quality—which is commonly gauged by the amount of non-performing loans (NPLs)—is another important factor that affects bank performance. The credit risk that banks confront is reflected in non-performing loans (NPLs). According to Louzis et al. (2012), high levels of non-performing loans (NPLs) cut interest revenue, raise provisioning costs, and eventually reduce profitability. A bank's financial position is weakened by poor asset quality, which also raises the risk of insolvency (Beck et al., 2013). Because of weaker institutional structures and ineffective regulatory control, the impact of non-performing loans (NPLs) is more severe in emerging economies. Growing NPLs have the potential to severely limit bank lending and slow economic expansion (Klein, 2013). Higher NPL rates are regularly linked to decreased profitability and more financial instability, according to empirical data (Messai & Jouini, 2013). Concerns over the efficacy of credit risk management strategies have been highlighted by the continued high percentages of non-performing loans in many developing nations. The accumulation of bad loans is a result of ineffective loan screening, lax oversight procedures, and inadequate governance frameworks. Banks are consequently compelled to devote substantial resources on loan loss provisions, which lowers their capacity to turn a profit. Furthermore, high NPL levels may deter new lending initiatives, thereby reducing banks' ability to generate revenue (Beck et al., 2013). Thus, maintaining long-term viability and enhancing bank performance depend on managing asset quality.

Another significant element affecting financial performance is bank size. Bigger banks are frequently anticipated to gain from increased access to financial markets, diversification of revenue streams, and economies of scale. Large banks can operate more profitably and efficiently thanks to these benefits (Goddard et al., 2004). Larger banks may also have more sophisticated technology and stronger risk management procedures, both of which enhance performance (Pasiouras & Kosmidou, 2007). But there isn't always a favourable correlation between bank size and profitability. Inefficiencies, increased risk exposure, and higher operating expenses can result from excessive size. Banks may experience difficulties with organisational complexity and ineffective

management as they expand, which could have a detrimental impact on performance (Athanasoglou et al., 2008). Additionally, there may be a limit to the advantages of growth, which would lead to diminishing returns to scale (Trujillo-Ponce, 2013).

Financial performance is significantly influenced by the interplay of capital adequacy, asset quality, and bank size. Research has demonstrated the interdependence of these elements and their combined impact on profitability. For example, increased profitability is more likely to be attained by well-capitalized banks with lower levels of non-performing loans (Flamini et al., 2009). According to Dietrich and Wanzenried (2011), banks that maintain an ideal balance between capital strength and asset quality typically exhibit superior financial stability and efficiency. These results emphasise the significance of implementing an all-encompassing strategy for bank management that takes into account several variables at once.

The relationship between these factors becomes much more important in the setting of Basel III. Although Basel III's tougher capital requirements are meant to improve financial stability, banks' lending practices and profitability may be impacted as well. In response to increased capital requirements, banks might cut back on risky lending practices, which might enhance asset quality but also restrict revenue growth. Improved capital buffers can also lower funding costs and boost market confidence, all of which could have a favourable impact on profitability. Therefore, how banks modify their strategy in response to regulatory changes will determine the overall effect of Basel III on bank performance (BCBS, 2011).

A number of institutional and structural issues affect how well Basel III is implemented in developing nations like Bangladesh. High rates of non-performing loans, poor corporate governance, and lax regulatory enforcement are some of the difficulties Bangladesh's banking industry faces. These problems could make it more difficult for banks to meet Basel III regulations and attain the intended gains in financial performance. Furthermore, because of variations in market structure and economic conditions, the link between capital adequacy and profitability may be different in Bangladesh. To better understand how Basel III affects bank performance, it is crucial to carry out country-specific research.

There is a lot of research on bank profitability, but not much of it focuses on how Basel III capital sufficiency affects Bangladeshi commercial banks' financial performance. The majority of current

research is based on cross-country assessments of developed economies, which might not adequately convey the distinctive features of Bangladesh's banking industry. A thorough examination that takes into account both regulatory and bank-specific issues is necessary given the persistent difficulties Bangladesh's banking industry faces, such as an increase in non-performing loans and a decline in profitability. In order to close this research gap, this study uses panel data analysis to look at how capital adequacy, non-performing loans, and bank size affect the financial performance of particular commercial banks in Bangladesh.

Chapter 03

Research Methodology

3.1 Methodology

This study employs an empirical, explanatory research design to examine how specific financial factors affect the performance of Bangladeshi commercial banks. Because it uses numerical data from financial records and statistical methods to examine correlations between variables, the study takes a quantitative approach. Because it enables objective measurement and thorough examination of cause-and-effect linkages, quantitative research is especially appropriate for financial studies (Creswell, 2014).

The study uses panel data analysis, which integrates cross-sectional and time-series observations. Increased degrees of freedom, less multicollinearity, and enhanced estimator efficiency are only a few benefits of this method (Baltagi, 2005). Panel data analysis provides a more thorough understanding of the dynamics of financial performance by accounting for both bank-specific and time-specific fluctuations.

The study uses a variety of econometric methodologies, including Pooled Ordinary Least Squares (OLS), Fixed Effects (FE), and Random Effects (RE), to investigate the relationships among variables. Each model captures different assumptions about the behaviour of unobserved heterogeneity across banks. The Hausman specification test, which assesses whether individual effects are associated with the explanatory variables, is used to select the best model (Hausman, 1978). This guarantees accurate and reliable estimates from the finished model.

3.2 Design of Research:

This study employs an explanatory, empirical research approach to investigate how Basel III capital sufficiency affects the financial performance of Bangladeshi commercial banks. Based on secondary data, a quantitative method is employed.

The dataset is a balanced panel with 70 observations spanning 10 years, from 2015 to 2024. Because the dataset is balanced, every bank is represented equally over all years, which improves the analysis's dependability (Wooldridge, 2010). The link between variables is examined using econometric approaches.

3.3 Data Source and Gathering

The secondary data used in this study were gathered from reputable, publicly accessible sources. Annual reports from a few chosen banks, Bangladesh Bank publications, and official bank websites are the main sources of information. These resources provide standardised, audited financial data, ensuring the accuracy and reliability of the information. To measure bank size, the data collection procedure involves extracting pertinent financial indicators, such as Return on Assets (ROA), Non-Performing Loans (NPL), Capital Adequacy Ratio (CRAR), and total assets. Before being imported into Stata software for analysis, the gathered data is first arranged in Microsoft Excel.

The data are processed and cleaned to remove extreme values and inconsistencies, thereby increasing the analysis's robustness. Winsorization at a predetermined level is used to control outliers, reducing their impact without completely eliminating them (Barnett & Lewis, 1994).

3.4 Data Analysis Technique

Stata, a frequently used software for econometric analysis, is used to analyse the gathered data. Initial data organisation and preprocessing are performed in Microsoft Excel. Regression analysis, correlation analysis, and descriptive statistics are only a few of the statistical and econometric methods used in the study. By summarising important metrics, including mean, standard deviation, kurtosis, and skewness, descriptive statistics offer a summary of the data. The direction and intensity of correlations between variables are examined using correlation analysis. Pooled OLS, Fixed Effects, and Random Effects models are used in regression analysis. These models help determine how independent variables affect the dependent variable. To confirm the model's validity, diagnostic tests are also carried out, such as multicollinearity tests (Gujarati & Porter, 2009).

3.5 Model Specification

The study employs a multiple linear regression model to analyze the relationship between bank performance and selected financial variables. The model is specified as follows:

$$ROA_{it} = \beta_0 + \beta_1 NPL_{it} + \beta_2 CRAR_{it} + \beta_3 BS_{it} + \varepsilon_{it}$$

Where,

ROA = Return on Assets (Dependent Variable)

NPL = Non-Performing Loan Ratio

CRAR = Capital Adequacy Ratio

BS = Bank Size (log of total assets)

NPL = Non-Performing Loan Ratio

LG = Loan Growth

β_0 = Intercept

β_1 – β_3 = Regression coefficients

ε = Error term

i = Bank

t = Time period

Initially, Tier-1 Capital Ratio was included in the model; however, it was excluded due to its high correlation with CRAR, which could lead to multicollinearity problems and biased estimates (Gujarati & Porter, 2009).

3.6 Theoretical and Conceptual Framework

3.6.1 Theoretical Framework

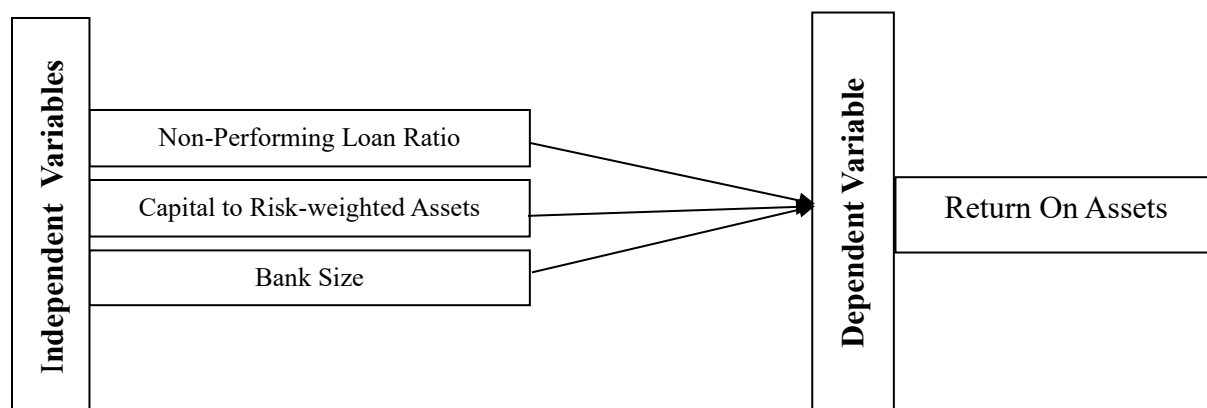
Basel III capital adequacy theory, which highlights that banks must retain adequate capital to absorb risks and guarantee financial stability, serves as the theoretical foundation for this study.

Higher capital adequacy (CRAR) strengthens a bank's resilience to financial shocks and improves overall performance, according to this paradigm.

Furthermore, according to credit risk theory, an increase in non-performing loans (NPLs) has a detrimental impact on profitability by reducing revenue and increasing provisioning requirements. Because larger banks may gain from economies of scale and improved resource management, which can benefit financial performance, bank size is also seen as a significant factor. As a result, the study assumes that financial performance, as measured by Return on Assets (ROA), is significantly influenced by CRAR, NPL, and bank size.

3.6.2 Conceptual Framework

The study's conceptual framework shows how the independent and dependent variables relate to one another. Bank-specific variables, including credit risk, capital sufficiency, and size, affect financial performance as measured by ROA. Credit risk is reflected in non-performing loans, which are expected to have a detrimental impact on profitability. Performance is expected to be positively affected by capital adequacy, a reflection of financial stability and strength. Bank size captures the scale of operations and may have either a positive or negative effect depending on efficiency levels (Athanasoglou et al., 2008).



3.7 Statistical Tests

A number of statistical tests are performed to guarantee the reliability and validity of the findings. While correlation analysis examines the relationships between variables, descriptive statistics summarise the data.

Multicollinearity is assessed using the Variance Inflation Factor (VIF); results below the threshold suggest no significant issue. The Wooldridge test is used to find autocorrelation in panel data, and the Breusch-Pagan test is used to find heteroskedasticity (Wooldridge, 2010). To choose between Fixed Effects and Random Effects, the Hausman test is utilised. The best model is chosen for final interpretation based on the test findings.

3.8 Hypothesis Development

The study tests the following hypotheses:

H₁: There is no significant relationship between NPL and ROA

H₂: NPL has a significant impact on ROA

H₃: CRAR has no significant effect on ROA

H₄: CRAR has a significant impact on ROA

H₅: Bank Size has no significant effect on ROA

H₆: Bank Size has a significant impact on ROA

Chapter 04

Organization Profile

4.1 Introduction

The banking sector plays a vital role in the economic development of Bangladesh by supporting investment, trade, and financial stability. Agrani Bank PLC, as a leading state-owned commercial bank, contributes significantly to the country's financial system. In recent years, Basel III regulations have emphasized the importance of capital adequacy to ensure banks can absorb risks and maintain stability. The Capital to Risk-Weighted Assets Ratio (CRAR) is a key measure of this adequacy. This study examines the impact of Basel III capital adequacy on the financial performance of Agrani Bank PLC, using Return on Assets (ROA) as a measure of performance. It also considers factors such as Non-Performing Loans (NPL) and bank size to better understand their influence on profitability.

4.2 Vision of Agrani Bank PLC

The vision of Agrani Bank PLC is to become a leading state-owned commercial bank in Bangladesh by ensuring financial inclusion, sustainable growth, and customer-centric banking services through the adoption of modern technology and efficient management practices.

4.3 Mission of Agrani Bank PLC

The mission of Agrani Bank PLC is to provide diversified and innovative banking services to all segments of society, contribute to economic development, and ensure customer satisfaction by maintaining sound financial performance, transparency, and good governance.

4.4 Core Values

Agrani Bank PLC operates based on the following core values:

Integrity: Maintaining honesty and transparency in all operations

Customer Focus: Prioritizing customer needs and satisfaction

Accountability: Being responsible for actions and decisions

Innovation: Adopting modern banking technologies and ideas

Teamwork: Encouraging collaboration among employees

Excellence: Striving for continuous improvement and high performance

4.5 Corporate Slogan

“Committed to serve the nation”

4.6 Strategic Objectives

- To ensure strong capital adequacy in line with Basel III requirements for maintaining financial stability.
- To improve financial performance by increasing profitability (ROA) through efficient asset utilization.
- To reduce Non-Performing Loans (NPL) by strengthening credit risk management and recovery processes.
- To expand banking services and enhance financial inclusion across urban and rural areas of Bangladesh.
- To adopt modern technology and digital banking systems for better customer service and operational efficiency.
- To strengthen corporate governance and transparency in all banking operations.
- To achieve sustainable growth by optimizing bank size and resource allocation.

4.7 Corporate Culture

Agrani Bank PLC maintains a professional and service-oriented corporate culture focused on integrity, accountability, and customer satisfaction. As a state-owned commercial bank, it emphasizes transparency, ethical banking practices, and compliance with regulatory guidelines. The bank promotes teamwork, discipline, and a strong sense of responsibility among employees to ensure efficient service delivery. It also encourages continuous learning and adaptation to modern banking technologies to improve operational performance. Moreover, Agrani Bank is committed to financial inclusion and social responsibility, aiming to serve all segments of society, including rural and underserved communities. This culture helps the bank maintain trust, stability, and long-term sustainability in the banking sector.

4.8 Business Area of Agrani Bank PLC

Agrani Bank PLC operates in several key business areas, focusing on providing comprehensive banking services across various sectors of the economy. Here are its main business areas:

Corporate Banking: Offering a range of services to large corporate clients, including working capital loans, trade financing, project financing, and other financial solutions to support business expansion.

Retail Banking: Providing services to individual customers, including savings accounts, current accounts, fixed deposits, personal loans, debit and credit cards, and remittance services.

SME Banking: Supporting small and medium-sized enterprises with tailored financial solutions such as SME loans, working capital financing, and business development support.

Agricultural Banking: Providing financial support to the agricultural sector through crop loans, rural credit programs, and financing for agro-based industries.

Foreign Exchange Services: Facilitating international trade and transactions through import and export financing, letter of credit (LC), and foreign remittance services.

Digital Banking: Enhancing customer experience through modern banking facilities such as online banking, mobile banking, ATM networks, and electronic payment systems.

4.9 Product Offered by Agrani Bank:

Agrani Bank PLC offers a wide range of financial products to meet the needs of individuals, businesses, and institutions. The main products are as follows:

Products	Elements
Deposit Products	Saving accounts Current accounts Fixed deposit receipts(FDR) Various savings schemes
Loan Products	Personal loans

	Home loans Car loans SME loans Agricultural loans Corporate financing facilities
SME Products	Specialized loan for small and medium enterprises and working capital needs
Agricultural Loan Products	Crop loans Irrigation loans Rural credit facilities for farmers and agro-based businesses
Trade Finance Products	Letter of credit(LC) Bank guarantee Import-export financing Other trade related financial services
Remittance Services	Local and foreign remittance services to facilitate money transfer from abroad and within the country.
Card Products	Debit cards Credit cards ATM cards for convenient transactions.
Digital Banking Products	Internet banking Mobile banking ATM services Electronic fund transfer systems.

4.10 Service Offered by Agrani Bank PLC

Agrani Bank PLC provides a wide range of banking services to meet the financial needs of individuals, businesses, and institutions across Bangladesh. The main services are as follows:

General Banking Services:Account opening, cash deposit and withdrawal, cheque clearing, fund transfer, and account maintenance services.

Loan and Credit Services:Providing various loan facilities including personal loans, SME loans, agricultural loans, and corporate financing along with credit assessment and monitoring.

Trade Finance Services:Facilitating import and export operations through letter of credit (LC), bank guarantees, and other trade-related services.

Foreign Exchange Services:Handling foreign currency transactions, inward and outward remittance, and supporting international trade activities.

Remittance Services:Providing fast and secure transfer of funds from abroad and within the country through different remittance channels.

Card and ATM Services:Issuing debit and credit cards, ATM services, and cash withdrawal facilities for customer convenience.

Digital Banking Services:Internet banking, mobile banking, online fund transfer, and electronic payment systems.

Customer Support Services:Providing customer care, complaint handling, and financial advisory services to ensure customer satisfaction.

4.11 Types of Loan

Agrani Bank PLC offers different types of loans to meet the financial needs of individuals, businesses, and various sectors of the economy. The main types of loans are as follows:

Personal Loan:rovided to individuals for personal needs such as education, medical expenses, or household purposes.

Home Loan:Given for purchasing, constructing, or renovating residential properties.

Car Loan:Offered to customers for purchasing new or used vehicles.

SME Loan:Provided to small and medium enterprises for business expansion, working capital, and operational needs.

Agricultural Loan: Given to farmers for crop production, irrigation, and other agricultural activities.

Corporate Loan: Offered to large business organizations for project financing, working capital, and industrial development.

Overdraft Facility: Allows customers to withdraw more than their account balance up to a certain limit for short-term financial needs.

Trade Finance Loan: Includes import and export financing such as Letter of Credit (LC) and other trade-related credit facilities.

4.12 Loan Classification and Its Impact on Non-Performing Loans

Loan classification refers to the process of categorizing loans based on their repayment performance and risk level. In Bangladesh, banks follow guidelines provided by Bangladesh Bank to classify loans into different categories such as

- ✓Unclassified (Standard)

- ✓ Classified Loans which include Substandard, Doubtful, and Bad/Loss.

Unclassified or standard loans are those that are performing well, where borrowers repay installments on time. On the other hand, classified loans are those where repayment is irregular or overdue for a certain period. Substandard loans indicate early signs of default, doubtful loans have a high risk of non-recovery, and bad/loss loans are considered almost unrecoverable.

Impact on NPL

Loan classification has a direct impact on Non-Performing Loans (NPL). As more loans move from standard to classified categories, the level of NPL increases. High NPL indicates poor asset quality and weak credit risk management, which negatively affects a bank's profitability, liquidity, and overall financial stability. Moreover, an increase in NPL requires banks to maintain higher provisions and capital, which reduces their ability to generate profit and extend new loans. Therefore, proper loan classification and effective monitoring are essential to control NPL and ensure better financial performance of banks like Agrani Bank PLC.

4.13 Loan Recovery Method of Agrani Bank PLC

Agrani Bank PLC follows several methods to recover loans and reduce non-performing loans (NPL). The main recovery methods are as follows:

Regular Monitoring:The bank closely monitors loan accounts to ensure timely repayment and identify early signs of default.

Reminder and Follow-up:Borrowers are contacted through phone calls, letters, and notices to remind them about overdue payments.

Rescheduling of Loans:In case of genuine financial difficulties, loans are rescheduled or restructured to make repayment easier for borrowers.

Legal Action:If borrowers fail to repay, the bank takes legal action under relevant laws to recover the loan amount.

Use of Collateral:The bank recovers loans by selling pledged assets or collateral provided by the borrower.

Negotiation and Settlement:The bank may negotiate with borrowers to settle outstanding loans through partial payments or special arrangements.

Recovery Team:Dedicated recovery officers or teams are assigned to follow up and ensure loan recovery.

4.14 Credit Rating

Agrani Bank PLC is evaluated by recognized credit rating agencies in Bangladesh, such as Credit Rating Information and Services Limited (CRISL). The bank generally holds a “AA” (Double A) long-term credit rating, which reflects a high degree of safety and a strong capacity to meet its financial obligations on time. In terms of short-term credit rating, Agrani Bank is typically assigned a rating like “ST-2”, indicating a strong ability to fulfill its short-term financial commitments. This rating demonstrates that Agrani Bank PLC maintains a stable financial position, supported by adequate capital strength and sound operational performance. However, the overall rating may be influenced by factors such as the level of non-performing loans (NPL), efficiency in loan management, and the broader economic environment. Overall, the credit rating of Agrani Bank

PLC indicates reliability, financial stability, and relatively low credit risk, making it a trusted institution within the banking sector of Bangladesh.

4.15 SWOT Analysis

Strengths

- ✓Weaknesses
- ✓High level of non-performing loans (NPL)
- ✓Lower profitability compared to private banks
- ✓Operational inefficiency and bureaucratic procedures
- ✓Limited adoption of advanced technology
- ✓Slow decision-making process

Opportunities

- ✓Expansion of digital and online banking services
- ✓Growing demand for SME and retail banking
- ✓Scope for financial inclusion in rural areas
- ✓Implementation of Basel III to improve capital strength
- ✓Increasing use of mobile and internet banking

Threats

- ✓Intense competition from private and foreign banks
- ✓Rising cyber security and fraud risks
- ✓Economic instability affecting loan repayment
- ✓Strict regulatory policies by Bangladesh Bank
- ✓Rapid technological changes in the banking sector

4.16 Limitations

- 1. High Non-Performing Loans (NPL):** Agrani Bank PLC faces a high level of non-performing loans, which negatively affects its profitability and overall financial performance.
- 2. Operational Inefficiency:** The bank often experiences delays in service delivery due to manual processes and bureaucratic procedures, reducing overall efficiency.
- 3. Limited Technological Advancement:** Compared to private banks, Agrani Bank is relatively slow in adopting modern banking technologies and digital services.
- 4. Lower Profitability:** Due to high NPL and inefficiencies, the bank's return on assets (ROA) remains comparatively lower.
- 5. Weak Credit Risk Management:** Ineffective monitoring and evaluation of loans sometimes lead to poor loan quality and increased default risk.
- 6. Slow Decision-Making Process:** Being a state-owned bank, decision-making is often time-consuming due to administrative complexity.
- 7. Customer Service Issues:** In some cases, customers face dissatisfaction due to slower service and lack of personalized banking experience.

Chapter 05

Data Analysis & Findings

5.1 Descriptive Statistics

The descriptive statistics of the variables utilised in this study, such as Return on Assets (ROA), Non-Performing Loans (NPL), Capital to Risk-Weighted Assets Ratio (CRAR), and Bank Size, are shown in Table 5.1.

With a mean ROA of 0.672, commercial banks in Bangladesh are generally profitable. The standard deviation of 0.447 indicates that bank profitability varies reasonably. The ROA's minimum and maximum values range from -0.010 to 1.46, indicating that while some banks saw modest losses, others saw comparatively substantial profits.

The mean value for non-performing loans (NPL) is 9.04, with a comparatively large standard deviation of 7.863, suggesting that credit quality varies significantly amongst institutions. While some banks maintain modest levels of bad loans, others have significant credit risk problems, according to the minimum and highest values (1.680 to 30). A few banks have very high NPL rates, however the majority of banks have lower NPL values, according to the positive skewness (1.39).

The average CRAR is 12.987, which indicates that banks generally maintain adequate capital in line with Basel III requirements. The standard deviation of 3.613 indicates a moderate level of capital adequacy variability among banks. The distribution seems to be slightly positively biased (0.394), indicating that the majority of banks keep their CRARs near the average with fewer extreme values.

With a mean of 10.299 and a standard deviation of 0.798, Bank Size shows comparatively little variation in bank size. With fewer smaller banks in the sample, the negative skewness (-0.803) indicates that the majority of banks are comparatively larger in size.

Overall, the descriptive statistics show that although Bangladeshi commercial banks keep sufficient capital levels, profitability and non-performing loans vary greatly, which could have a big impact on financial performance.

Table 5.1 Descriptive Statistics

Variable	Mean	Std.Dev	Min	Max	Median	Skewness	Kurtosis
Return on Asset(ROA)	.672	.447	-0.010	1.46	.73	0	1.915
Non Performing Loan Ratio(NPL)	9.04	7.863	1.680	30	5.41	1.39	3.852
Capital to Risk-Weighted Assets Ratio(CRAR)	12.987	3.613	6.280	21.03	12.62	.394	2.915
Bank Size(BS)	10.299	.798	8.428	11.652	10.448	-.803	3.471

Source: Based on results generated by STATA 18.

5.2 Correlation Analysis

Table 5.2 presents the correlation matrix among the variables, including Return on Assets (ROA), Non-Performing Loans (NPL), Capital to Risk-Weighted Assets Ratio (CRAR), and Bank Size. The results show that ROA has a significant negative relationship with NPL (-0.731*)**, indicating that an increase in non-performing loans reduces bank profitability. This suggests that poor loan quality adversely affects financial performance.

On the other hand, ROA is positively correlated with CRAR (0.695*)**, implying that higher capital adequacy enhances the financial performance of banks. This supports the view that well-capitalized banks are more stable and profitable.

However, ROA has a significant negative relationship with Bank Size (-0.617*)**, suggesting that larger banks may face inefficiencies or higher operational complexities that reduce profitability. Furthermore, NPL is negatively correlated with CRAR (-0.677*), indicating that banks with higher capital adequacy tend to have lower levels of non-performing loans. In contrast, NPL shows a positive relationship with Bank Size (0.534)*, suggesting that larger banks may experience higher credit risk.

Finally, CRAR is negatively correlated with Bank Size (-0.714*)**, indicating that larger banks may maintain relatively lower capital adequacy levels.

Overall, all variables show statistically significant relationships at the 1% level, indicating strong associations among the variables used in the study.

Table 5.2 Correlation Matrix

Variables	ROA	NPL	CRAR	Bank Size
Return on Asset	1.000			
Non Performing Loan Ratio	-0.731***	1.000		
Capital to Risk Weighted Assets Ratio	0.695***	-0.677***	1.000	
Bank Size	-0.617***	0.534***	-0.714***	1.000

Statistically Significant *p<0.10, **p<0.05, ***p<0.01

Source: Based on results generated by STATA 18.0

5.3 Multicollinearity Test (VIF)

The correlation matrix between the variables Return on Assets (ROA), Non-Performing Loans (NPL), Capital to Risk-Weighted Assets Ratio (CRAR), and Bank Size is shown in Table 5.2. The findings demonstrate a strong negative correlation between ROA and NPL (-0.731*), suggesting that a rise in non-performing loans lowers bank profitability. This implies that financial performance is negatively impacted by subpar loans.

Conversely, ROA and CRAR have a positive correlation (0.695*), suggesting that greater capital adequacy improves banks' financial performance. This bolsters the idea that banks with adequate capital are more profitable and stable.

Non-Performing Loan (NPL), Capital to Risk-Weighted Assets Ratio (CRAR), and Bank Size are the independent variables that are examined for multicollinearity using the Variance Inflation Factor (VIF).

The findings indicate that all variables had VIF values ranging from 1.87 to 2.72, with a mean VIF of 2.22, well below the crucial threshold of 10. This suggests that the explanatory variables do not exhibit significant multicollinearity.

As a result, the study's regression results are trustworthy and devoid of multicollinearity problems.

Table 5.3: Multicollinearity Test (VIF)

Variables	VIF	1/VIF
Return on Asset	2.72	0.367647
Non Performing Loan Ratio	2.06	0.485437
Capital to Risk Weighted Assets	1.87	0.534759
Bank Size	2.21	0.452489
Mean VIF=2.22		

5.4 Regression Analysis

The regression findings utilising Pooled OLS, Random Effects, and Fixed Effects models to investigate the effect of Basel III capital sufficiency on the financial performance (ROA) of commercial banks in Bangladesh are shown in Table 5.4.

According to the findings, ROA is negatively and statistically significantly impacted by the Non-Performing Loan (NPL) ratio in all three models. This suggests that a rise in non-performing loans (NPLs) lowers bank profitability, indicating lower asset quality and increased credit risk. All models show a positive correlation between ROA and the Capital to Risk-Weighted Assets Ratio (CRAR), which is statistically significant at the 10% level. This implies that increased capital adequacy enhances banks' stability and risk-taking capacity, thereby boosting financial performance.

In every model, the coefficient on bank size is negative, suggesting that larger banks may be less profitable, perhaps due to inefficiencies or more complex operations. Its importance, however, differs depending on the model.

The model's general fitness is adequate. The R-squared values show that the independent factors account for a sizable amount of the variation in ROA. The F-statistic (for Pooled OLS) and Chi-square statistic (for panel models) both show that the models are statistically significant. The Random Effects model is deemed the most suitable based on the Hausman test results; as a result, it is primarily used to explain the results. The results emphasise the importance of preserving

asset quality and maintaining sufficient capital to increase bank profitability. The results emphasise the importance of preserving asset quality and maintaining sufficient capital to increase bank profitability.

Table 5.4 Regression Results of Pooled OLS, Random Effects, and Fixed Effects Models

Variables	Model-1 Pooled OLS (ROA)	Model-2 Random Effect Model (ROA)	Model-3 Fixed Effect Model (ROA)
Non Performing Loan Ratio(NPL)	-.026*** (-4.51)	-.021*** (-2.99)	-.017*** (-2.76)
Capital to Risk Weighted Assets(CRAR)	.03* (1.95)	.033* (1.69)	.033* (1.69)
Bank Size(Size)	-.111* (-1.83)	-.13** (-2.17)	-.153 (-1.36)
Constant	1.663** (2.20)	1.776** (2.01)	1.972* (1.69)
F-Stat	37.136***	491.451***	7.205***
Adj-R2	0.628	0.624	0.265
No. of observations	70	70	70

Statistically Significant *p<0.10, **p<0.05, ***p<0.01

Source: Based on results generated by STATA 18.0

5.5 Hausman Test Analysis

The Hausman test is applied to select the appropriate panel data model between Fixed Effects and Random Effects. The result shows that the p-value (0.219) is greater than 0.05, indicating that the null hypothesis cannot be rejected. Therefore, the Random Effects model is considered the most

appropriate for analyzing the impact of Non-Performing Loans (NPL), Capital Adequacy Ratio (CRAR), and Bank Size on Return on Assets (ROA).

Table 5.5 Hausman Test

Test Statistic	Value
Chi-square value	4.426
Degrees of freedom(df)	3
P-value	0.219

5.6 Analysis of Hypothesis

Hypothesis 1 (H₁):

There is no significant relationship between NPL and ROA.

Independent variable	Coefficient	t-value	P-value	Decision
NPL	-0.021***	(-2.99)	0.003	Rejected

The result shows that NPL has a statistically significant negative relationship with ROA ($p < 0.01$). Therefore, the null hypothesis (H₁) is rejected.

Hypothesis 2 (H₂):

NPL has a significant impact on ROA.

Independent variable	Coefficient	t-value	P-value	Decision
NPL	-0.021***	(-2.99)	0.003	Supported

Since the coefficient is significant, NPL significantly affects ROA. Therefore, H₂ is supported.

Hypothesis 3 (H₃):

CRAR has no significant effect on ROA.

Independent variable	Coefficient	t-value	P-value	Decision
CRAR	0.033*	(1.69)	0.091	Rejected

The p-value is less than 0.10, indicating statistical significance at the 10% level. Therefore, H3 is rejected.

Hypothesis 4 (H₄):

CRAR has a significant impact on ROA.

Independent variable	Coefficient	t-value	P-value	Decision
CRAR	0.033*	(1.69)	0.091	Supported

CRAR shows a positive and significant impact on ROA. Therefore, H4 is supported.

Hypothesis 5 (H₅):

Bank Size has no significant effect on ROA.

Independent variable	Coefficient	t-value	P-value	Decision
Bank Size	-0.130	(-1.36)	0.177	Accepted

The p-value is greater than 0.10, indicating no statistical significance. Therefore, H5 is accepted.

Hypothesis 6 (H₆):

Bank Size has a significant impact on ROA.

Independent variable	Coefficient	t-value	P-value	Decision
Bank Size	-0.130	(-1.36)	0.177	Accepted

Bank Size	-0.130	(-1.36)	0.177	Not Supported
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Since the coefficient is not statistically significant, H6 is not supported.

Overall, the findings suggest that NPL and CRAR significantly influence bank profitability, while bank size does not have a significant impact on ROA.

5.7 Findings

1. According to the study, Non-Performing Loans (NPL) significantly lower ROA, suggesting that increased loan default lowers bank profitability.
2. There is a positive and statistically significant correlation between ROA and the Capital to Risk-Weighted Assets Ratio (CRAR), indicating that well-capitalized banks have better financial performance.
3. The findings show that bank size has a negative but statistically negligible impact on ROA, indicating that size has little bearing on profitability.
4. The correlation analysis supports the regression results by showing a negative correlation between NPL and ROA and a positive correlation between CRAR and ROA.
5. According to the Hausman test, the Random Effects model is the best suitable, guaranteeing accurate and effective panel data estimate.

Chapter 06

Conclusion & Recommendations

6.1 Conclusion

Using Return on Assets (ROA) as a profitability metric, this study looks at how Basel III capital adequacy affects the financial performance of commercial banks in Bangladesh. The paper provides empirical evidence of the importance of financial factors in shaping bank performance, using panel data from 2015 to 2024.

The results show that ROA is significantly negatively affected by non-performing loans (NPL), suggesting that low asset quality reduces profitability and financial stability. Conversely, there is a positive, statistically significant correlation between ROA and the Capital to Risk-Weighted Assets Ratio (CRAR), indicating that greater capital adequacy enhances banks' capacity to absorb risks and improve performance. However, it is found that bank size has a negative but negligible impact, suggesting that greater size does not always translate into greater profitability. The findings also support the notion that enhancing financial performance in the banking industry requires maintaining good credit management and sufficient capital buffers. The analysis's robustness and dependability are further guaranteed by the Random Effects model.

Overall, the study finds that capital adequacy and asset quality are important factors influencing the profitability of Bangladeshi commercial banks. In the long run, strengthening these areas can help create a more reliable and effective financial system.

6.2 Recommendations

1. Improving Management of Credit Risk: To lower Non-Performing Loans (NPL), banks should use more stringent credit appraisal and monitoring procedures. Early warning systems, routine loan reviews, and appropriate borrower assessments can all reduce the chance of default.

2. Enhancing Mechanisms for Loan Recovery: To reduce the number of classified loans and improve asset quality, effective recovery techniques, such as restructuring, legal actions, and incentive-based recovery programs, should be strengthened.

3. Sustaining Sufficient Capital Levels: Banks must maintain a high Capital to Risk-Weighted Assets Ratio (CRAR) to comply with Basel III regulations. Increased capital buffers will boost profitability and strengthen resistance to financial shocks.

4. Improving Efficiency in Operations: Improving internal efficiency, cost control, and resource management can help banks achieve superior financial performance regardless of size, even when bank size is not a key factor.

5. Policy Support and Regulatory Supervision: To ensure that banks have adequate capital and manage credit risk effectively, Bangladesh Bank should strengthen oversight and implement prudential standards.

6. Risk analytics and technology adoption: To make better decisions, reduce inefficiencies, and improve overall performance, banks should invest in cutting-edge technology, data analytics, and digital risk management tools.

By implementing these suggestions, Bangladesh's banking industry will grow sustainably, increase profitability, and bolster financial stability.

6.3 Contribution of the Study

This study significantly adds to the body of knowledge and practical understanding of banking performance in Bangladesh. First of all, it provides empirical evidence on how Basel III capital adequacy affects commercial banks' financial performance, which remains scarce in Bangladesh. Second, to provide a more thorough understanding of bank performance, the study integrates important variables, including Non-Performing Loans (NPL), Capital to Risk-Weighted Assets Ratio (CRAR), and Bank Size, to analyse their combined effect on profitability (ROA). Thirdly, the study provides more reliable and robust outcomes by using panel data from 2015 to 2024 and econometric models, including Pooled OLS, Fixed Effects, and Random Effects. Fourth, by emphasising the significance of preserving asset quality and sufficient capital to improve financial performance, the study's conclusions offer useful insights for bank management and legislators. Lastly, by offering a paradigm and empirical foundation for more research on capital sufficiency and banking performance in emerging nations, the study advances future research.

6.4 Limitations of The Study

The study relies on secondary data gathered from commercial banks' annual reports, which might not be entirely accurate.

- NPL, CRAR, and bank size are the only variables included in the analysis; other significant factors that impact financial performance are not taken into account.
- The study's time frame (2015–2024) might not adequately reflect long-term patterns and structural shifts in the banking industry.
- Because only a few commercial banks in Bangladesh were included in the sample, the results could not be entirely applicable to other banks.
- The approach does not account for external factors such as inflation, policy changes, and economic conditions.
- The accuracy of the empirical results may be impacted by potential measurement errors and data inconsistencies.

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