Internship Report On

Industry-Benchmarked Credit Rating Framework: Strengthening Lending Decisions

By

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An internship report submitted to the BRAC Business School in partial fulfillment of the requirements for the degree of
Bachelor of Business Administration

BRAC Business School
Brac University
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Declaration

It is hereby declared that

1. The internship report submitted is my/our own original work while completing degree at Brac University.
2. The report does not contain material previously published or written by a third party, except where this is appropriately cited through full and accurate referencing.
3. The report does not contain material which has been accepted, or submitted, for any other degree or diploma at a university or other institution.
4. I/We have acknowledged all main sources of help.

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Mohammad Mujibul Haque, PhD
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Letter of Transmittal

Mohammad Mujibul Haque, PhD

Professor and Dean,

BRAC Business School

BRAC University

KHA 224, Progati Sarani, Merul Badda, Dhaka 1212.

Subject: Submission of Internship Report

Dear Sir,

It is my pleasure to submit my internship report on *“Industry-Benchmarking Credit Risk Rating Framework: Strengthening ICRR for Smarter Lending Decisions”* within the timeframe provided to me. This report is the outcome of my practical experience and learning during my internship at United Commercial Bank PLC and I have made my best effort to prepare this report in a concise and comprehensive manner. I believe this report fulfills my potentials and I genuinely apologize for any of my shortcomings you may find in this report.

I hope this report will meet your expectations and you will be generous enough to accept my report thus I greatly appreciate your consideration.

Sincerely yours,

____

Rahib Ur Rahman

Student ID: 22104010

BRAC Business School

BRAC University

Date: January 04, 2026

Acknowledgement

In the game of Almighty Allah, I am grateful for granting me the strength and patience towards pursuing and completing this report. I would like to convey my heartful gratitude to my host organization supervisor, Fahmida Ma'am and my institutional supervisor, Mujib Sir, who extended their guidance and continuous support in the project whenever needed. Their Rich experience, insightful feedbacks and endless encouragement have been quite instrumental in shaping the outcome of this report. Their unwavering commitment towards my academics as well as professional development has always been a source of motivation.

I hereby acknowledge my supervisors, who gave me much of their precious time and facilities, share their vast experience and further assisted me in advancing my position Their guidance has improved this report and shaped my personal and intellectual growth.

Finally, I would also like to show my respect and admiration towards my couple of attachments at United Commercial Bank PLC, Syed Bhai and Tauhid Bhai along with my supervisor's TA Siam Bhai for their encouragement and cooperation, which have been so valuable. Their enthusiasm has motivated me to be proactive throughout the whole tenure. I am deeply appreciative of the opportunity to collaborate with such exceptional persons.

Executive Summary

The purpose of the report is to integrate and analyze all three chapters including, own perspective from personal exposure during internship tenor, background and overview of the company from experience, interviews and online source and lastly design and develop a project to solve or improve an existing problem at UCB.

Chapter 1 aims to provide a perspective from the view point of an intern. It mainly covers some personal details along with some in-depth reflective description including, the responsibilities, challenges, key learnings and recommendations. This chapter also talks about the first real-world experience that can help both the host organization and future interns by providing a complete view from a different angle.

The goal of chapter 2 is to provide a complete overview and critical analysis of the background of the host organization including, its functional areas, competitive position and current situation. Later identify the challenges in different functional areas and recommend ways to solve or improve those areas. This chapter combines both real experiences gained during internship tenure and information from online sources in order to provide a more in depth and practical description. The information is both qualitative and quantitative and critically analyzed to get a better picture and visualize it.

The aim of chapter 3 is to design and develop a sector-based framework with ratios and trends derived from the audited financials of clients of UCB's RMG portfolio with a view to create a supporting tool to make better lending decision. The chapter start with thoroughly explaining about the existing ICRR process then slowing moving to its inevitable imitations and lastly providing with the developed framework as a supporting tool for the existing assessment process. It does not aim to fully replicate or replace it. Additionally, the finding shows that the framework is able to visualize the financial condition of a company and compare it, which existing tool lacks. The developed framework aims to solve the biggest challenge every bank face, which is managing loan portfolio and make better credit decisions.

Although this internship was a mandatory requirement for my degree but the benefits of it lays way beyond. This internship was my first exposure to real-life work and it created a connection between the theories we learn in class with its application. This opportunity surely prepared me for my career and future better than I could imagine.

Keywords: Credit Risk Management; Internal Credit Risk Rating (ICRR); Industry Benchmarking; Commercial Banking; RMG Sector; Financial Analysis

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List of Acronyms

ATM	Automated Teller Machine
BB	Bangladesh Bank
BDT	Bangladeshi Taka
BFRS	Bangladesh Financial Reporting Standards
BoD	Board of Directors
CAD	Credit Administration Division
CBS	Core Banking System
CEO	Chief Executive Officer
CFAR	Cashflow-based Accrual Ratio
CIR	Cost-to-Income Ratio
COSO	Committee of Sponsoring Organizations of the Treadway Commission
CRM	Credit Risk Management
CRR	Cash Reserve Ratio
CSR	Corporate Social Responsibility
DTA	Debt to Total Asset
DTN	Debt to Tangible Net Worth
DSCR	Debt Service Coverage Ratio
DPS	Deposit Pension Scheme
EC	Executive Committee
EPS	Earnings per Share
EVA	Economic Value Added
FD	Fixed Deposit
FFI	Financial Institutions
GAAP	Generally Accepted Accounting Principles

IAS	International Accounting Standards
ICRR	Internal Credit Risk Rating
IFRS	International Financial Reporting Standards
IT	Information Technology
LC	Letter of Credit
MD	Managing Director
MIS	Management Information System
MFS	Mobile Financial Services
MVA	Market Value Added
NBFI	Non-Bank Financial Institution
NPL	Non-Performing Loan
NPM	Net Profit Margin
NRB	Non-Resident Bangladeshi
OPOA	Operating Profit to Operating Assets
PCB	Private Commercial Bank
P/E	Price-to-Earnings Ratio
RBS	Risk-Based Supervision
RMG	Ready-Made Garments
ROA	Return on Assets
ROE	Return on Equity
SME	Small and Medium Enterprise
SLR	Statutory Liquidity Ratio
SLM	Straight Line Method
SWOT	Strengths, Weaknesses, Opportunities, Threats
SVP	Senior Vice President

TDP	Textile, Dyeing and Printing
UCB	United Commercial Bank PLC
UNET	UCB Online Banking Platform

Glossary

Accrual Basis of Accounting	An accounting method where income and expenses are recorded when earned or incurred, not when cash is exchanged.
Agent Banking	A banking model where services are delivered through authorized agents instead of physical branches
Benchmarking Index	A comparative analytical tool developed in the project to evaluate borrower performance against industry averages
Capital Adequacy	A measure of a bank's financial strength in terms of its capital relative to risk-weighted assets.
Core Banking System (CBS)	A centralized software platform that enables banks to conduct real-time banking operations across branches.
Credit Memo	An internal document prepared by banks containing borrower details, risk analysis, and loan proposal recommendations.
Credit Risk	The risk that a borrower may fail to meet repayment obligations as per agreed terms.
Credit Risk Rating	A systematic evaluation of a borrower's creditworthiness based on quantitative and qualitative factors.
DuPont Analysis	A financial performance framework that decomposes ROE into profitability, efficiency, and leverage components.
Economic Value Added (EVA)	A measure of financial performance indicating value created after covering the cost of capital
Industry Benchmarking	A method of comparing a firm's financial ratios against industry peers to assess relative performance.
Internal Credit Risk Rating (ICRR)	A standardized borrower-level credit assessment framework mandated by Bangladesh Bank for corporate lending.
Liquidity Risk	The risk that a bank may not be able to meet short-term financial obligations when they fall due.
Management Information System (MIS)	A centralized system for collecting, storing, and analyzing organizational data to support decision-making.
Non-Performing Loan (NPL)	A loan on which the borrower has failed to make scheduled payments for a specified period

Operational Efficiency	A measure of how effectively an organization utilizes resources to generate income.
Participative Leadership	A leadership style that encourages employee involvement in decision-making while retaining final authority with management.
Risk-Based Supervision (RBS)	A regulatory approach focusing supervisory attention on areas of highest risk within banks.
Winsorization	A statistical technique used to limit extreme values in a dataset by capping them at specific percentiles.

Chapter 1

Overview of Internship

1.1 Student Information:

Name	Rahib Ur Rahman
Student ID	22104010
Program	Bachelor of Business Administration
Major	Finance
Minor	CIM

1.2 Internship Information

1.2.1 Host Organization Details

Period	03 Months (18th Sept to 18th Dec, 2025)
Company Name	United Commercial Bank PLC (UCB)
Division	Credit Risk Management-Corporate
Address	Plot - CWS- (A)-1, Road No - 34, Gulshan Avenue, Dhaka-1212, Bangladesh.

1.2.2 Host Organization Supervisor's Information

Name	Fahmida Sharmin
Position	Senior Vice President (SVP), CRM-Corporate

1.2.3 Scope of the Job

My internship at UCB was my first exposure to real-world experience to what I have learned through theories in my classroom. And this experience lived up to my expectations. Through this internship, I build a strong foundation and practical understanding of the finance and banking sector of Bangladesh. Moreover, I gain valuable insights on how an organization works and how to function in a professional environment, what is expected from me and what I can expect from therm. This practical experience has further enhanced my analytical skills and knowledge.

In spite of my official designation as a "Project Intern", the following were key responsibilities that I undertook during my internship tenure:

- Industry analysis of RMG sector particularly focusing on backward linkage, accessories and packings industry.
- Help building an MIS for RMG credit memo and input data into it.

- Built a framework to support existing ICRR framework and get better insights about financial condition.
- Participation in bank's RBS and signatory recording.
- Evaluating quantitative part of credit memos in ICRR evaluation.

The key responsibility that was vested to me was various industry analysis that can improve credit lending decisions.

1.3 Internship Outcomes

1.3.1 Student's contribution

As an intern I never felt like an outsider, and has always been considered as a regular employee through friendly behavior. Owing to my designation and lack of experience, initially I was not involved in any internal projects or proposal. Over the time, I was well trained and educated enough to swiftly contribute with same pace as the regular employees. My major contribution over the three months period at UCB is describe below:

1.3.1.1 Industry Analysis

I conducted two industry analysis, one is backward linkage of RMG and Textile and another is accessories and packaging industry.

Although RMG alone is large enough to be an industry, it is supported by many other relevant sub-industries and sectors. Raw materials such as cotton are collected and processed by spinning mills and turned into yarn. Yarn is them processed through weaving and knitting to transform into fabric. That fabric is then dyed in different colors. Lastly the fabric is turn into finished products such as denim or jeans pants. These process that happen in the backward is called backward linkage, the goal of which is to support the main product.

Another industry analysis was accessories and packaging industry, particularly focusing on accessories used in RMG and Textile industry. Notable products of this industry are button, various packaging materials, cardboard and so on. Global accessories and packing market are huge but my analysis focused on accessories and packing materials that is used in RMG and Textile industry only.

1.3.1.2 Peer Group Analysis

Another analysis that was done by me was peer to peer analysis of RMG industry to understand current situation of the industry. Peer group analysis gave insights about companies who were doing better and who were struggling. If we further look into those company, we may also find out what the company that were doing good, did right and the company doing bad did wrong.

1.3.1.3 ICRR Indexing Framework

Lastly, I created an indexing framework to complement the existing ICRR framework that the banks use. The framework was created with applied and descriptive methods that included quantitative ratios derived from audited financials. This framework would complement the already existing framework and provide better insights on a company in 7 different perspectives. They are:

Profitability, Liquidity, Leverage, Earnings, Efficiency, and Trends. Initially its being used for internal use within RMG unit at CRM Corporate but has also been proved to use throughout the entire division.

Other than these, I also contributed in:

- Building a central MIS for CRM-Corporate to store loan memos or proposals
- Entering data for a signatory project, which consisted of searching credit memos from last 5 years for signatory information of that memo
- Reviewing the quantitative part of ICRR in credit memos
- Searching and entering aggregate rating from ICRR of credit memos of last 5 years because of the RBS of the bank

1.3.2 Benefits to the student

My internship at United Commercial Bank gave me significant professional growth, academic knowledge and personal benefits that contributed greatly to my overall development as a business student majoring in Finance. We were taught many things in our classroom that is why One of the most notable benefits of this internship was the opportunity to gain practical exposure. In my internship tenure through various activities, I achieve clear understanding of how financial institutions work. This real-world hand-on experience has enhanced my understanding about finance.

My analytical and problem-solving skills were enhanced while conducting various tasks vested to me such as industry analysis which required me to interpret complex financial and industrial data, understanding trends and presenting observations in a structured way. Additionally, I developed professional skills and workplace discipline which is essential for my future career opportunities. Working at UCB, a proper formal banking environment has taught me work place etiquette, punctuality, accountability and effective communication.

On a personal level, this internship boosted my confidence and gave me clarity about my future. Being treated as a regular employee helped me adapt quickly and contribute meaningfully to the host organization. The experience confirmed my interest in the finance and banking sector and motivated me to further develop my skills for a professional career in this field

In conclusion, the internship at UCB was a highly beneficial learning experience that enriched my academic knowledge and applied skills that prepared me for future challenges in my career.

1.3.3 Challenges Encountered

Although I got a lot opportunities to learn but this was my first practical experience at a professional environment, I did encounter some challenges. Some were personal and others were organization or environment specific. The challenges I encountered during my tenure are describe below in two sections:

Organization Specific Challenges

Heavily Paper Dependent: The first challenge I face was the bank was heavily dependent on paper. All the proposals, credit memos, financial statements, reports and so on were done on paper. In fact, the drafts or the first copies of the credit memos were done on paper too. In the age of digitalization, this was something I had to adapt to.

No Central MIS: The banks have to keep all the records of their client, particularly if for business clients, with whom the relationship is usually longer. The client may take term loan, line of credit or purchase LC and may make repayments of multiple at once. So, it's essential to keep all the records from the first day. But these records are kept on paper in files in a store room. It very difficult and time consuming if someone had to find any details about any clients from 5/6 years ago. They had to go to storeroom and find the file, its volume and particular credit memo. Lack of central MIS make this process more difficult.

Lack of Communication Among Divisions: There was decent communication within the division through WhatsApp and different social platforms. But the only way for official communication was Microsoft Outlook. This makes communication between division very difficult and delay things.

Lack of Technology Integration: As I have already mentioned about paper dependency, I cannot but mention the lack of technology integration within the bank. The world is moving towards digital fin-tech and no-cash or cashless society, where it felt like everything was being done traditionally not because of any regulation or guidance but because of people were comfortable with it. If UCB wants to remain competitive within the banking industry, it must integrate technology and give adequate training to its employees.

I did encounter some personal challenges, they are:

Personal Challenges

Long Office Hours: My office timing was from 10 AM to 6 PM, standard office hour for banks. But I often had to stay till 7 or 8 PM. The daily work I finished at UCB should take about 4 to 5 hours maximum. But as I am to be at office till 6, it decreased my productivity. I stared to stack-off and be less efficient.

Lack of Refreshment or Entertainment in Breaks: I could take breaks when I needed but there was almost nothing to do during break. I could sit and do nothing or watch reels on phone for 5/10-minute break time.

1.3.4 Recommendations

My working experience at UCB was amazing. I hardly face any serios difficulties here. All the organization specific or personal challenges I encountered were minimal and I could overcome them easily. Not to mention some of the challenges were necessary such as, keeping everything on paper, this was one of the regulations by Bangladesh Bank (BB). But I still believe that there is scope of improvements and I would like to recommend few things that I think can be improved and which may improve working environment at UCB. They are:

- As Bangladesh Bank have a regulation to keep records documented on papers, paper dependency cannot be fully removed but can be partially decreased. The records can be digitally organized through scanned a data repository. Scanned copies can be kept there so that whenever someone need anything from past records, they can access it quickly and easily.
- Slack or Discord or any other work place communication platform can be used for communication within and between division. This would make communication much easier and quicker to distribute any information when needed.
- Automated digital banking software can be integrated. They can keep better records of employee KPIs and monitor development. This software can increase efficiency and help UCB remain competitive. Employs must be trained adequately too for this cause. But his can bring along term success than short tern achievements.
- UCB can also focus on efficiency rather than long office hour by emphasizing on objective or goal completion approach. At the start of the day, when employee enter into the premises, they would have some objective or goal for that day. If they finish it early, they can report and go home. This approach will not only improve efficiency but also make work less hectic.
- Last, UCB can create a place for refreshment, where they can add indoor games such as table tennis or carom. The employees can take breaks and refresh themselves there. This will motivate employees and enhance working environment.

Chapter 2

The Organization: United Commercial Bank PLC

2.1 Introduction

Chapter two gives a complete analytical overview of the host organization, which is '*United Commercial Bank PLC'*(UCB). UCB is one of the leading commercial banks in Bangladesh, which have significant impact on the country's financial system and therefore in its national economy by offering banking and other financial services to individuals and businesses.

This chapter aims to present an overall understanding of UCB's organizational structure, management practices, marketing strategies, financial performance, accounting policies, operational systems, and industry positioning. This analysis is developed based on practical exposure gained during internship tenure at UCB head office, primary information gained from interviewing employees and supported by secondary information collected from annual reports, internal documents and relevant publicly available papers. Chapter two serves as the foundation for evaluating UCB's overall performance and competitiveness within banking industry of Bangladesh by integrating theoretical knowledge gained in classroom with real-world organizational practices.

2.1.1 Objectives

The primary objectives of Chapter 02 are providing an overall overview of host organization's (UCB) functional areas, thoroughly analyzing these and provide feasible recommendations to improve in certain functions or add more value.

2.1.2 Scope of Study

The scope of this report is enclosed with organizational, operational and strategic analysis of the host organization (UCB). The report primarily focusses on UCB's overall operations rather than any individual division or branch. However, all the practical insights were gathered from Corporate Credit Risk Management division throughout different methods and included along with its relevance. The analysis covers management practices, marketing activities, financial and accounting performance, operational systems, information technology usage, and industry competitiveness. However, due to confidentiality, restrictions and time constraints, the report does not include any highly sensitive data or detailed internal records, and therefore limited to publicly available and permissible organizational information only.

2.1.3 Methodology

- This report follows a descriptive and analytical research approach, combining both primary and secondary data.
    1. **Primary Data:** Direct observation, practical involvement, interviews and informal discussion with supervisors and colleagues
    2. **Secondary Data:** UCB's annual report of last **5 years (2024, 2023, 2022, 2021, 2020)** official website, internal documents, policy manuals, Bangladesh Bank guidelines and relevant journals and articles.
- The report combines both qualitative and quantitative methods using the collected data and its interpretation to ensure the comprehensive and objective assessment of the host organization.
- Provide feasible recommendations were given based on the assessment.

2.1.4 Significance of Study

The significance of the can both be academic as well as practical in nature. From the academic perspective, this report combines the theoretical concepts of finance, management and information systems with real life banking operations, enhancing the practical understanding of UCB's practices and norms within the industry. On the other hands, the practical standpoint of the report is useful for students, researchers and professionals who seek insights of operational and strategic practice of banking sector of Bangladesh. Additionally, this report highlights strengths, weaknesses, threats and opportunities, which may help understand bank's policies and refine its practices. Overall, this chapter helps to contribute bridging the gap between academic knowledge gain from the classroom and real-world professional experience achieve from the banking sector.

2.2 Overview of the Company

Financial System of Bangladesh

The role of the financial system, in creation of savings and provision of investment is marvelous as well as proper allocation among various sectors in an emerging economy like Bangladesh is recognized for its economic development. It is a mechanism of transacting the economic resources such as money and finance, offered by lenders in surplus term units and the deficit unit borrowers through financial intermediaries. The system is generally governed and monitored by Bangladesh Bank, the central bank of the country, which formulates and implements monetary policy, maintains financial stability, oversees banks and nonbanks FFIs and manages payment and settlement systems.

The financial system in Bangladesh is largely dominated by bank-based and that only commercial banks are the principal enterprises for savings mobilizations and credit distribution. Capital markets, NBFIs, insurance companies and microfinance institutions also form part of the system though commercial banks are still central in terms of financial intermediation. With the economy of Bangladesh continuing to grow, and trade activities on the rise, as well as greater public exposure to financial inclusion, the role of banks is becoming

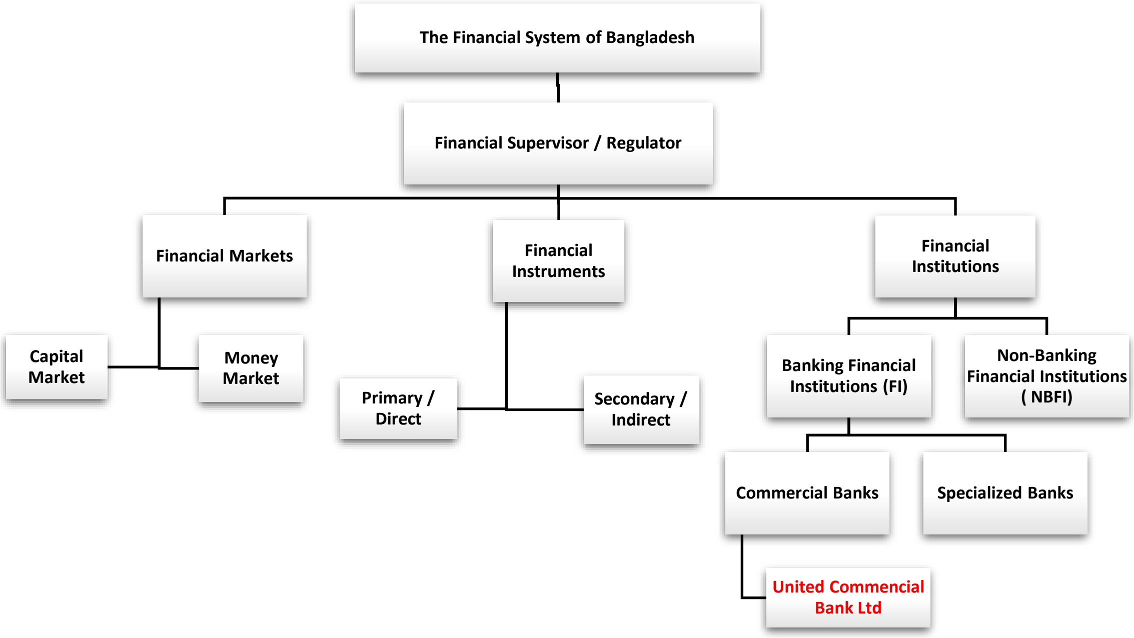


Figure 1:Financial System of Bangladesh

more important in transferring funds to productive sectors that include industry, agriculture and SMEs (small and medium enterprises), along with infrastructure project.

The Role of Commercial Banks in Bangladesh

Banking companies in Bangladesh are financial intermediaries that accept deposits from individuals and/or businesses (collect deposit), which are then used to provide loans, and invest securities. They provide trade finance services for local as well as global market, they maintain payment systems domestically and support remittance inflows to balance the fiscal and monetary policies of Bangladesh Bank, they also practice saving to ensure economic stability by following prudential regulations instructed by BB.

There are four categories of banks in Bangladesh: government-owned commercial banks (GBCBs), private sector commercial banks, foreign banking companies and Specialized Development Banks. Private commercial banks (PCB) in this group, have grown exponentially during the recent decades and presently lead other such banks by controlling asset size, number of branches, use of technology and innovation in service. However, the market remains competitive on the back of a large scheduled bank network, stringent regulatory standards, rising compliance expenses and growing customer expectations from digitalization.

In this competitive and regulated environment, commercial banks are expected by the regulators to have strong corporate governance, sound risk management system, sufficient capital base and effective information technology platform. They are not just dependent on their profitability, but also the regulatory compliance, quality of assets, operational efficiency and trust of customers.

United Commercial Bank PLC (UCB)

United Commercial Bank PLC (UCB) was established in 1987 after the independence of Bangladesh as an urbanized bank, founded under Companies Acts and also was listed at Dhaka (DSE) and Chittagong (CSE) stock exchange with authorized capital of BDT106,000 million and paid-up capital of BDT14,875 million. UCB is a part of the United Group as one of it's a first-generation private bank.

United Commercial Bank PLC (UCB) is one of the pioneers of first-generation private banks in Bangladesh. Since its establishment, UCB has placed itself as a major force in Bangladesh's banking sector. The Bank is a scheduled commercial bank established and licensed under the Banking Companies Act of 1991 and regulated by banks' regulatory and monitoring entity, Bangladesh Bank providing full range of banking services to retail, SME and corporate customers.

UCB operations include deposit gathering, credit and loans, trade finance, treasury services, forex trading and digital banking solutions. Over time, the Bank has grown to strengthen and broaden its service capacity with 75 branches or sub-branches, including off-site branch, ATM services, CRM service, Agent Banking and Mobile Money Services. This expansion is in line with UCB's strategic goal to increase financial inclusion and serve more customers in a responsible manner.

Position of UCB in Banking Sector

A very competitive financial market, UCB presents itself as a prudent and sound private bank with friendly and cordial atmosphere offering personalized and customized services of highest standard. Although most banking offerings are fairly standardized across the industry, UCB rides on disciplined credit underwriting process, people-centered approach to leadership and a mixed strategy of traditional banking and digital enablement.

UCB's mature image, rich legacy and regulatory oriented business culture helps ensure customers confidence and regulators' trust. It is evident that the Bank's additional spend in technology, digital platforms and alternate channel delivery aligns with changing customer preferences and industry dynamics.

To sum up, UCB is operating in a bank based financial market and commercial banks are the lifeline for economic growth. UCB, a bank that was born as the 1st generation private commercial bank has grown with and in Bangladesh and proved to be one of the stable ventures of the country. Its context with the regulatory requirement, artificial governance, wide spread operation and a customer friendly initiative have made it stronger in ensuring sustainability in a competitive banking atmosphere. 4, this Section has framed the following analysis of UCB and his management style, marketing practices, financial performance, operations system and competitive positioning that will be reviewed next.

2.3 Management Practices

Management plays a vital role in any organization. Effective management ensures organization's stability, sustainable performance and regulatory compliance which is very essential in a compliance heavy sector like banking. UCB has adopted a structured participative management framework that integrates leadership, governance and all the aspect of management practices in order to achieve its strategic objective and align with its vision, mission and goal.

2.3.1 Leadership Style

UCB practices an integrated leadership style that includes, the participative leadership style and tone from the top leadership style. First of foremost, the participative leadership style is an inclusive leadership style that basically means that, the employees and managers across different organizational levels are encouraged to contribute with their ideas, provide feedbacks and participate in decision making processes. While participation and consultation are emphasized, the final decision-making authority remains in the hand of senior management figures or committee including the Managing Director (MD), the CEO, the Executive Committee (EC) or the Board of Directors (BoD). Such leadership approach balances both inclusiveness with accountability and control, which is essential for properly regulated financial institutions (Yukl,2013). In addition, the tone from the top is a leadership approach that strongly emphasizes on the ethical conduct, transparency within and across the organization, regulatory compliance and risk consciousness. Here the senior management sets clear expectation regarding integrity and judicious banking practices through structured formal policies, internal communications and governance framework. Research suggests that an organization with strong ethical tone from the top often have better organizational culture and stronger internal control mechanism, particularly in financial institutions (COSO,2017).

2.3.2 UCB's Organizational Structure and Hierarchy

Functional and hierarchical order UCB has a functional and hierarchical organization set up in order to govern, control, and specialize its functioning. Strategic guidance is provided by the Board of Directors, and daily operations are run directly by the Managing Director and CEO, with help from senior executive committees and business divisions. UCB's organizational hierarchy is given below:

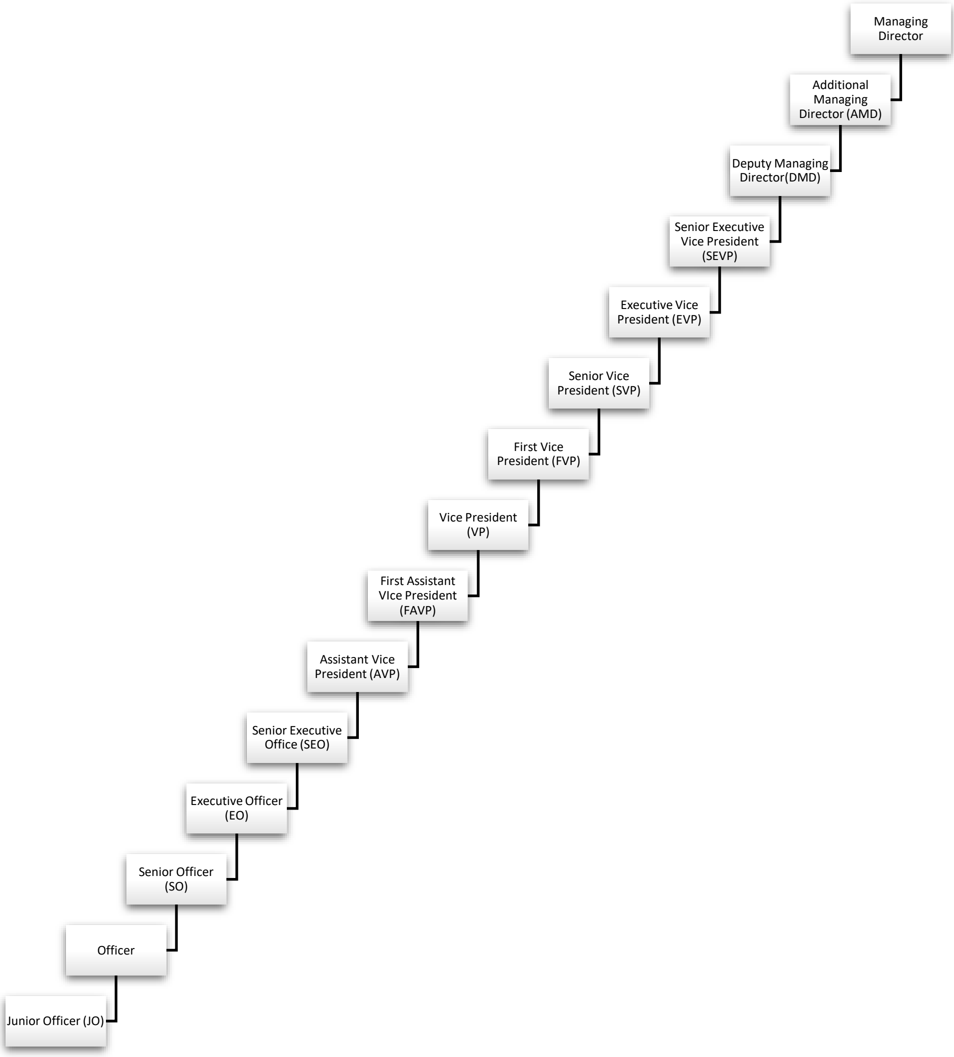


Figure 2: UCB's Organizational Hierarchy

UCB work under this hierarchy and appraisals follow similar pattern too. Major divisions and sub-divisions are divided based on functional areas below:

Divisions and Sub-divisions based on Functional Areas

Business and Banking Operations: There divisions work as the core banking system. There are, Retail Banking, Wholesale and Corporate Banking, SME and Agri Banking, Islamic Banking (Taqwa), Agent Banking, Financial Institutions and Offshore Banking, Treasury, Transcation and Trade finance, Card and Liability Operations, Alternative Delivery Channels, Payment Service. There are many sub-divisions among these too.

Risk, Credit and Compliance: These divisions are mainly responsible for managing risk and abiding by the compliance. The divisions are, Credit Risk Management (CRM) Corporate, Retail and SME, Credit Administration and Monitoring, Credit Inspection and Sanction, Risk Management, Anti Money Laundering, Fraud Detection and management, Internal Control and compliance. One of the core and sensitive functional areas, which is risk management is covered through divisions.

Technology, Digital and Operations: All digital operations fall under this functional area. These are, IT division, Digital Banking and Transformation, Information Security, Achieve Management, General Service, and lastly Project and Process Management. These functionals are also responsible to support digital banking and customer service assistance/

Governance, Audit and Legal: As a financial institution, a bank must abide by many rules and regulations. The following divisions are responsible for those functions. Which are, Audit Division and IT Audit, Legal Division, Finance Division and lastly Procurement Division.

Human Capital, Strategy and Support Functions: All supporting division along with strategic divisions fall under this functional area. They are, HRM, Distribution and strategy, Brand marketing and Corporate Affairs and Service Quality Management. These are division who not only work inside the bank, but also outside to represent UCB and perform different branding activities.

This architecture allows UCB to hands efficiently complex banking operations and also guarantee compliance with rules and within the framework itself. Various Customers The bank provides its services from small depositors to corporate clients, with a variety of income and risk exposure.

2.3.3 Role of Leadership in Achieving Organizational Goals and Objectives

UCB’s tone from the top participative leadership style significantly contributes to achieve UCB’s organizational goals by aligning both strategic vision and operational execution together. It involves mid-level managers and specialist in different areas, particularly in areas which requires specialization such as credit risk management, compliance and operations. This ensures that all decisions are well communicated by all parties from top to down and they abide by the organization’s strategic plan and operational capacity. This leadership approach improves decision-making quality and promotes employee-manager ownership and accountability.

For example: A typical loan at UCB is approved through the credit committee or the board, which consist of personnel from the business unit and the credit risk management (CRM) unit. Usually personal from business unit presents the credit memo which consist of the client's detailed information, need and UCB's loan offering. On the other hand, CRM presents the overall review of the client, including credit score, repayment status and all the risk associated with the loan proposal. After both the division present their point, the board or the credit committee consisting of top management personnel approves, rejects or revises the loan proposal based on their uniform decision.

Figure 3: UCB's Loan Approval Decision-Making Process

This structured process makes the entire process smooth and enhances decision making quality for loan approvals. All these smaller processes contribute to achieving the larger organizational goals and objectives of the bank. Studies shows that participative leadership has a positive effect on employee commitment, job satisfaction and organizational performance (Somech, 2006). In the above context we can see it through every step of the decision-making process of UCB, which strengthens governance and thereby contributes to a stable and sustainable growth.

2.3.4 Human Resource Planning Process

For the banking industry, HR planning is highly important given rigid regulatory control, operational complexity and extreme risk to financial or reputational loss. HR Planning at UCB United Commercial Bank PLC (UCB) adopts a formal and regulatory driven process for human resource planning by integrating the needs of personnel with organizational needs in accordance with the guidelines established by Bangladesh Bank. In human resource policy matters, especially in recruiting, selection of top management level adds control works cannot be independent by commercial bank under the regulatory boundaries and laws of Bangladesh. Bangladesh Bank also established guidelines on fit and proper criteria, ethics and background verification, succession plan and governance to promote good banking practices and reduce operational risk.

However, the Standards do not dictate that a specific or uniform hiring process must be followed. To some extent, this model offers banks a good level of freedom to develop and implement their own labor market policy, as soon as they meet all regulatory requirements. UCB smartly leverages this flexibility to build a workforce planning solution that bridges compliance with operational efficiency, as well as talent acquisition and performance management.

2.3.4.1 Recruitment and Selection Process

Recruitment and selection at UCB follows a transparent, merit-based and is approved by Bangladesh Bank. All selection is conducted in conjunction with the Bank's human resource planning goals, as well as within credit union affirmative action requirements.

Fit and proper is applicable for Bangladesh Bank as well, in respect of senior management/key control positions. These are mainly based on academic standards, professional capabilities, personal integrity and ethics. UCB is in full compliance with these whilst maintaining flexibility over how you recruit and assess.

- Recruitment UCB uses various recruitment sources such as:
- Public job advertisements,
- Branch placement for entry-level officers and management trainees,
- Internal promotion and lateral movement,
- Hiring externally for roles such as credit risk, IT, compliance and treasury.

The selection process would comprise written test, structured personal interview of shortlisted candidates and background verification. This formal process ensures that new hires are in a position to contribute effectively, while abiding by regulatory and compliance requirements.

2.3.4.2 Compensation System

UCB have a competitive compensation and benefit program in the intense banking industry which is also supported by regulatory expectations. The remuneration package of the employees usually includes fixed salary elements, allowances, fringe benefits and other KPI based rewards.

Consistent with supervisory expectations and sound banking practices, UCB has mechanisms in place that ensure incentives are consistent with long-term performance and risk objectives. Over-risk is avoided by conditioning rewards on financial success and also compliance, quality of assets and operational performance. This is in line with international best practice around bank remuneration and sustainable company performance.

2.3.4.3 Training and Development Initiatives

UCB Human Resources Planning: Human resources planning in UCB includes the training and development of employers. The Bank is aware that with the rapid changes in technology, development of regulations and intense competition within the banking category continuous upgrading of staff skills is necessary.

UCC offers the following training programs:

- Orientation to new employees hired
- Job-specific technical training
- Regulatory compliance and risk management education
- Training Organizations Leadership training and management skills development courses

- Workshops on digital banking and core banking system

These efforts help workers respond to evolving operational needs and regulatory requirements. Training programs also aid succession planning as they help high performers become the next leaders.

2.3.4.4 Performance Appraisal System

A systematic way to review an employee's performance is provided on the UCB rating form to assess objective job performance and relate individual contribution to department goals. Indicators used for performance evaluation include: quantitative indexes (e.g. business goals, efficiency and productivity), as well as qualitative ones (e.g., compliance with regulations, teamwork or ethics).

The appraisals results are applied for the decisions of promotion, determination of amount increased in salary, threshold setting for conducting training and career path exploration. This structured review process increases accountability, motivates staff and supports a performance culture while maintaining compliance with regulatory and ethical guidelines.

2.4 Marketing Practices of United Commercial Bank Limited

Banking sector is fundamentally service oriented, which primarily focuses on customer experience rather than products like any other manufacturing company. But banks do have products that they offer to their customer as service, such as loan products and deposit products. United Commercial Bank Limited, as one of the leading private commercial banks in Bangladesh, maintains a stellar marketing practice to be competitive and profitable and position themselves in order to serve the diverse customer segment in this populous country with a very competitive banking sector.

2.4.1 Marketing Strategy

UCB’s marketing strategy is primarily centered around its customers. From a bank’s source of funds to the distribution of funds, everything depends on the customers. So UCB focuses on its customers just like all other banks and ensures its service delivery. To achieve this goal, firstly, UCB often runs different physical marketing campaign and digital social media campaign to reach, retain and bring more depositor to its existing customer-pool. Additionally, in order to remain competitive and bring more depositors therefore deposits, UCB have a huge arsenal of loan products and deposit product as offering to their customers. UCB ensures these products are diversified and digitally adoptable according to the changing needs of the customers and tends. Furthermore, a bank must protect its customers’ confidence towards the bank and its reputation. In order to achieve that, UCB ensures its quality of deposit and loan portfolios as well as organizes and invest in many CSR events. UCB aligns both its marketing strategy and organizational vision of value maximization and contributes to national economic growth. To conclude it can be told that, both traditional and modern marketing framework is used to reach UCB’s strategic goals (UCB, 2025)

2.4.2 Products and Service Offerings

UCB offers many loan and deposit products. Both loan and deposit product have different interest rates and limits based on the client's profile, financials, economic condition and sometimes regulatory guidelines. These cannot be determined and state directly but a generalized view is given here with consideration. They are classified into the following:

2.4.2.1 UCB Loan Products

1. Retail and Personal Loan Products (Individuals)

These are individual loans directed to the household customers for private use or consumption

- Personal Loan: For personal expenditure such as marriage, education, travel, medical. treatment etc. These loans are Unsecured and has a limit of maximum BDT 20 lakh. Interest rate may vary from 12%-16% per annum (p.a.)
- Car Loan: Finance for new or recondition Cars. Interest rate vary from 9%-12% p.a.
- Home Loan: Finance for purchase or construction of residential building. Interest rate vary from 8%-10.5% p.a.
- Credit Card – Credit card facility for individual customers, having the highest interest varying from 20%-24% p.a.

2. SME and Micro Loans

These loans are for personal and small business. Interest rate usually vary from 9%-13% p.a.

- SME Loans: Working capital and growth financing needs of small and medium business enterprises.
- All-In-One Construction: Combination of loan types to finance the construction of a new home.
- Micro and Cottage Loans: Small loan facility for Micro Entrepreneurs

UCB also originates such loans through Agent Banking extending the reach to rural and unbanked segments.

3. Commercial and Wholesale Loan Products

These loans are tailored for larger corporates, businesses and institutional customers. There is no fix interest rate. For corporate customer interest rate is confidential and it depends on many factors. But it usually varies from 7%-12% p.a.

- Working Capital Finance: Short term finance for working capital
- Pre Shipment and Post Shipment Credit: Export and Import Finance
- Industrial Loans: Long term loans for capital projects.
- Project Finance: Financing large infrastructure or sectoral project.
- Syndicated or Structured Finance: Multi-party and tailor-made financing solutions
- LCs and Guarantees: Trade instruments

UCB is also involved in off-shore banking and has a financial hybrid structure for corporate clients.

2.4.2.2 UCB Deposit Products

1. Savings and Current Accounts

These are deposit accounts for both individuals and companies to cater their needs based on their requirements.

- Savings Accounts
- Standard Savings Account
- Dynamic Benefits Savings
- NRB Savings Account
- Women's Savings Account
- Youngsters Savings / Student Savings
- Probashi (NRB) Savings
- Sabuj Sanchay / Shomota Savings

Some special offers may have a higher rate or include certain conditions. Savings and current accounts provide the least amount of interest but the most about of liquidity facility. Interest rate usually vary from 2%-4% p.a.

Current Accounts:

- Personal Current
- Impersonal/Business Current

These deposit accounts are often offered at 0% interest or with complete liquidity benefits

2. Fixed and Term Deposits

Fix deposit provide comparably more interest than other deposit account. It usually varies from 6%- 9% p.a. UCB fixed deposit (FD) rates over various tenors and purposes:

- Retail Fixed Deposit: Conventional time deposit for individuals
- UCB Earning Plus Fixed Deposit: Interest paid monthly or quarterly or half-yearly
- Money Maximizer Fixed Deposit: A more rewarding term deposit
- Ayma Fixed Deposit: Another term deposit plan with adjustable interest options
- Term Deposit - Short Notice: With notice, offers liquidity and interest

2.4.2.3 Specialized Deposits and Savings Schemes

UCB also provides many specialized deposit products to meet the specialize needs for some clients. These schemes have particular criteria for qualification.

- Monthly/Quarterly DPS (Deposit Pension Scheme)
- UCB Multi-Millionaire Deposit Schemes
- Senior Citizen Special Savings and Deposits

- Farmer and Micro-Activity Savings Accounts

Note: Interest rate may vary based on customer profile, creditworthiness, loan tenor economic condition and sometimes regulatory guidelines.

2.4.3 Target Customers, Targeting and Positioning Strategy

2.4.3.1 Target Customers

Banking industry in Bangladesh in very competitive, so segmentation is very essential here. Although almost everyone is UCB's target customer because of mass marketing strategy, UCB still need to divide the market in order to position itself correctly to the designated target customer. The market is initially divided into demographic, behavioristic, and psychographic segmentation. Key customer segments include:

- **Retail customers**, including youth, families, and NRB (non-resident Bangladeshi) clients.
- **SME customers** seeking tailored financing and banking solutions.
- **Corporate clients** requiring complex financial and trade services.

2.4.3.2 Targeting and Positioning strategy

UCB position itself as an all-in-one financial partner, offering a range of product and service options, from savings accounts, to small business loans, corporate trade financing and tailored deposit schemes, rather than only transaction-based bank. Such a segmentation allows focus marketing and delivery of services that suit the individual requirement of each segment.

2.4.4 Marketing Channels

UCB utilizes a both traditional and digital channels to reach its target customers and prospects. Notable channels include:

- **Branch Network and ATMs:** With an extensive network UCB has 414 key touch points across the country including 232 branches and 182 sub-branches for customers who prefer in-person banking. Additionally, UCB has 714 ATM booths in different parts of Bangladesh where more than 115 ATMs have been upgraded to CRM facilities to make deposit and withdraw easier for the customers.
- **Digital Banking Platforms:** Online banking, mobile apps, SMS notification and fintech service via own app (Unet) and Upay (UCB's subsidiary) have strengthen customer access and convenience, reflecting how UCB responded and adopted the shift towards digital channel preferences and cashless economy.

These channels build an integrated marketing mix that aligns with customer needs and expectation and enhance UCB's visibility in an increasing digital financial environment.

2.4.5 Product Development and Competitive Practices

New products in commercial banking are primarily service-driven and controlled by regulatory, risk, and customer issues. United Commercial Bank PLC (UCB) adopt a disciplined and market-led method of product development in which new products or modification in services are not launched without due consideration of customer requirements, national regulations as well the risks that they will pose.

Instead of a relentless stream of product launches, UCB is focusing on improving and tailoring existing retail, SMEs and corporate banking solutions. Loan products, deposit offerings and trade finance products are reviewed from time to time to address fluctuating customer requirements while ensuring quality of loan assets and compliance with regulations. This conservative stance also mitigates credit risk, and maintaining a stable portfolio profile is an important competitive edge for UCB.

Competitively, UCB is not involved in a cutthroat price competition with their competitors as that would be suicidal in the Bangladeshi banking sector. Instead, the Bank competes based on risk adjusted pricing, relationship banking and service quality. The digital delivery channels are leveraged for increased reach and efficiency rather than to deviate away from the business of core banking. These product and competitive practices contribute significantly to UCB's long term competitiveness through sustainability, governance strength and customer confidence

2.4.6 Branding Activities

Brand identity in the banking sector has been identified with trust, repute and image of stability rather than mere visual component. So UCBs branding strategy should be real, ethical and consistent services as it is a first private commercial of the new generation.

While banks depend largely on promotional branding, UCB is built mostly on operation brand based on performance, regulatory and customer experience. Service quality is upheld across the branches, professional staff and clear communication support the face of core brand promise. Together, these elements all add up to a strong customer confidence that is not easy for competitors to imitate in the short term.

UCB supported its more traditional brand position by investing in better corporate communication and becoming more present in the digital world, also in recent years. Furthermore, corporate social responsibility activities improve brand value and consolidate UCB's image as a financial institution that is responsible. This branding strategy is consistent of UCB's unique competitive advantage, which promotes quality and reputation over lasting and long-term visibility.

2.4.7 Advertising and Promotion Strategies

UCB approaches advertising and promotional activities with a purpose, making sure it serves UCB's strategic goals which help them remain competitive in the banking industry and falls under regulated guidance.

The Bank utilizes a blend of conventional methods, using both print and outdoor media, event partnerships as well as platforms such as social media. Promoting products categories emphasize convenience and reliability rather than discounting. UCB also links promotions with CSR activities, which reinforces perception and goodwill of the brand among customers. This conservative promotion strategy fits in well with UCB's philosophy of doing business.

For example,

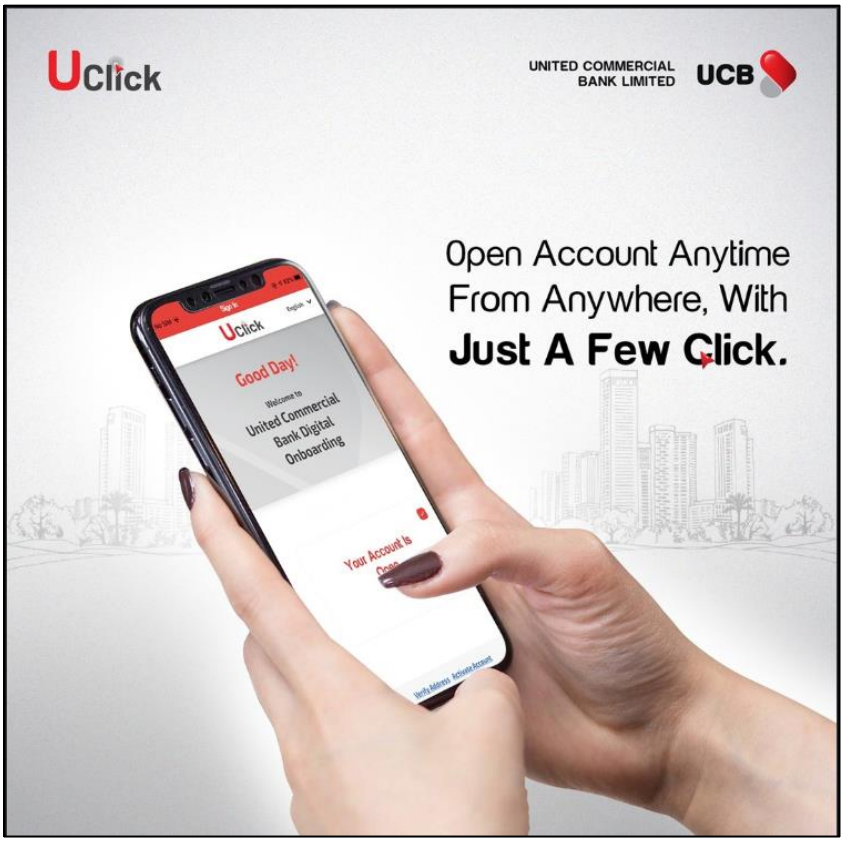


Figure 4: UClick Initiative

Uclick: Uclick is a promotional service offered by UCB that allows customers to open bank account online for those who do not or cannot visit banks physically. From a strategic perspective, UClick complements UCB's conservative branding and promotional philosophy. Rather than positioning itself as a high-frequency advertising tool, UClick strengthens relationship-based marketing by enhancing customer awareness and engagement within a trusted digital environment. This reinforces customer confidence and supports long-term relationship building, which is a key competitive strength for UCB

2.4.8 Critical Marketing Issues and Gaps

Despite of the efforts, UCB faces several challenges, some are UCB specific and others are country or region specific. Notable marketing issues and gaps are provided below:

- **Intense Competition:** Bangladesh is the 8^{th} most populous country having the population of 176.7 million, making it one of the most favorable countries to do any business. It should be similar in the case of banking industry but the real scenario is quite different, because of having 62 schedule banks and 34 NBFIs in the country, which make the banking industry highly competitive. Added the pressure of rapid digital transformation before the rival banks to remain competitive and profitable. This intense pressure makes marketing more challenging and costly.
- **Social Media Engagement:** Although UCB is quite active digitally and utilize online channels, there are still scope for improvements and deeper engagement through various unattended segments such as school and college going students, housewife who earns doing various freelancing and online selling and so on. Social media and online present are not adequate in these segments which should be improved to remain competitive.
- **Lack of Youth Inclusion:** UCB is a first-generation bank which was established in early 1983. So, it's still highly inclined towards doing things traditionally, for instance paper dependency, not having a digital data repository or lack of youth in work-force. UCB as little to no brand presence in universities or social media visibilities for youth-based platforms. From campus to job market hunting good candidates, youth work-force can be used if searched and utilized properly

UCB has already started working on many of the issues mentioned here with time and efforts UCB can become one of the biggest banks in Bangladesh.

2.5 Financial Performance and Accounting Practices

2.5.1 Finance Performance

The financial information of last 5 years (2020-2024) was collected from UCB's annual report and the following financial analysis was conducted to understand the financial situation of the company.

2.5.1.1 Liquidity and Solvency

Current Ratio: The current ratio reflects the bank's ability to meet its short-term liabilities using its short-term assets.

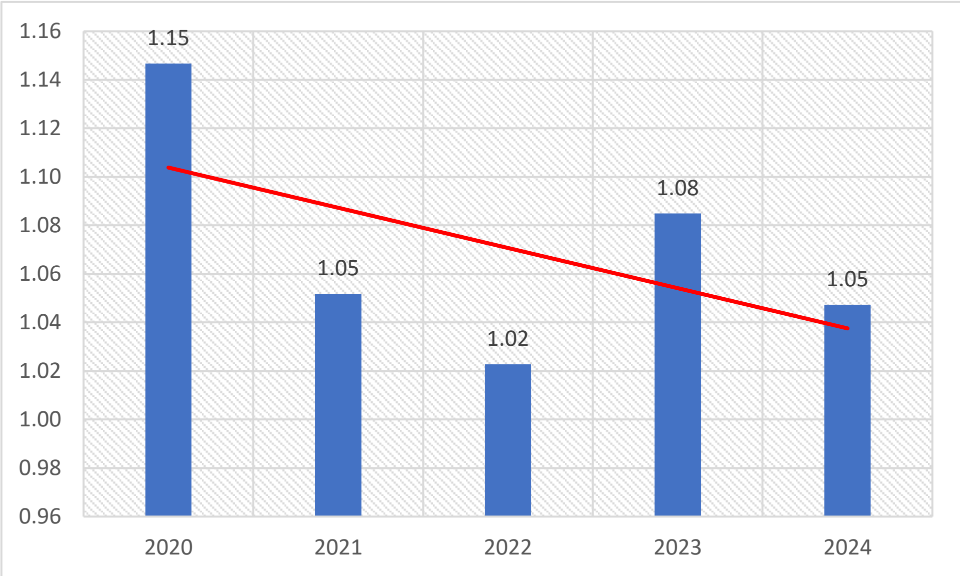


Figure 5: Current Ratio

The current ratio remained above 1 throughout the entire observed period, indicating that UCB was able to meet its short-term obligations. However, the gradual decline from 1.15 in 2020 to 1.05 in 2024 suggests a decline in liquidity margin and limited flexibility in managing short-term liabilities.

Cash Reserve Ratio: The Cash Reserve Ratio represents the proportion of deposits that a bank must keep in the central bank as reserve.

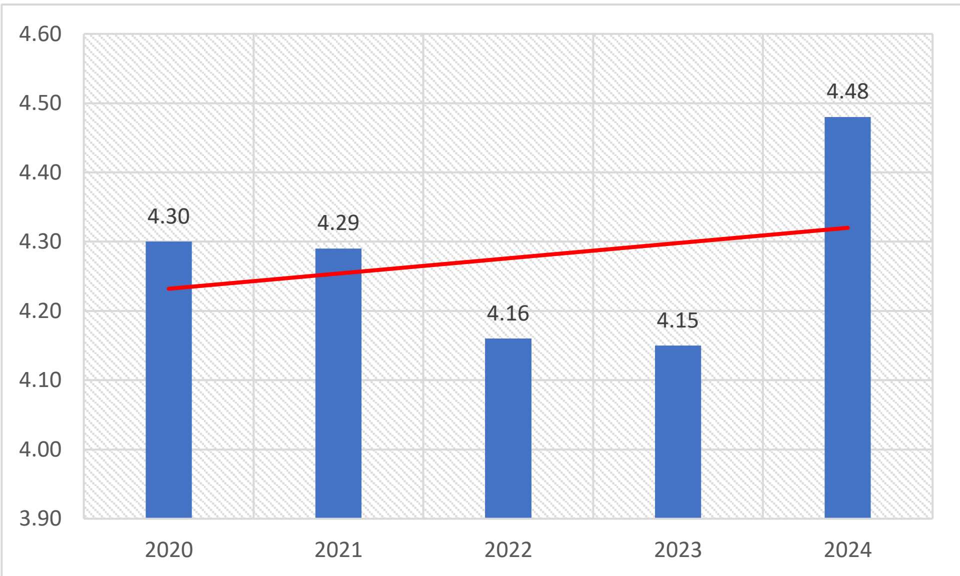


Figure 6: Cash Reserve Ratio (CRR)

UCB's CCR shows very little fluctuation and stays close to 4.2% to 4.3% from 2020-2023. The ratio had a rise of 4.48% in 2024. This stability reflects that UCB consistently maintained to regulatory compliance of its liquidity.

Statutory Liquidity Ratio: The Statutory Liquidity Ratio calculates the percentage (%) of bank's deposits invested in liquid assets like government securities (T-bills,T-bonds)

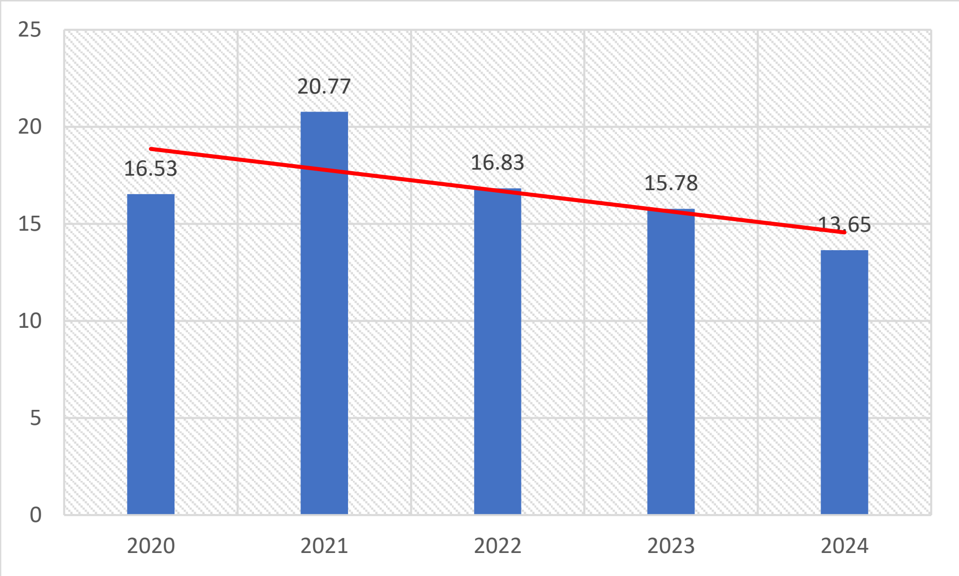


Figure 7: Statutory Liquidity Ratio

UCB's SLR was highest in 2021 and gradually declined from it reaching 13.65% in 2024. Which shows that it is still within regulatory limits, but the downward trend indicates a reduced of buffer liquidity.

Cash to Deposit Ratio: Cash and cash equivalent which includes, cash in hands, held in Bangladesh bank, in other banks and or call or short notice to total deposit. This is a bank-specific indicator that interprets banks liquidity.

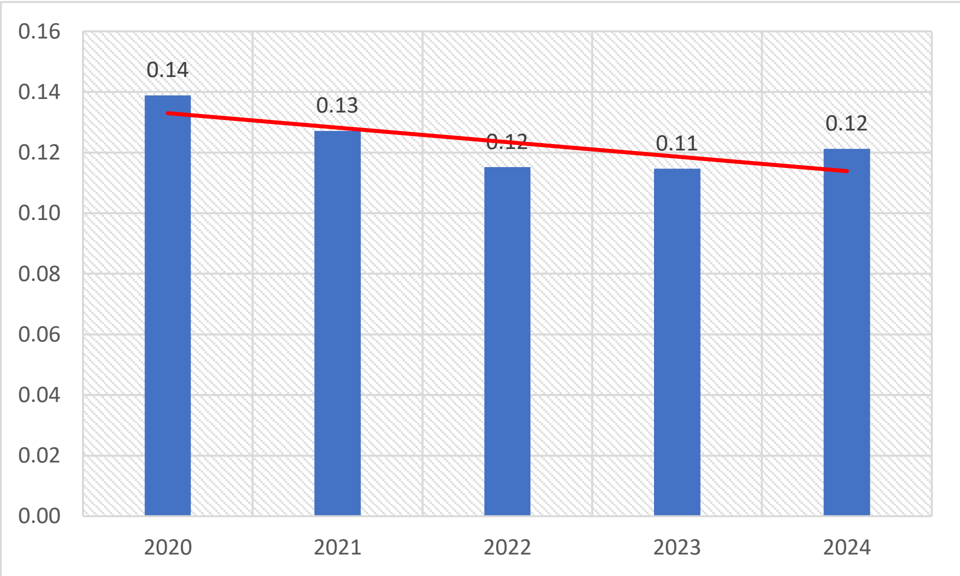


Figure 8: Cash to Deposit Ratio

The ratio was relatively stable during the observation period. It was the most (0.14) in initial year and gradually declined but again increased in 2024. This indicates that UCB has maintained its liquidity quite well, the decline is very insignificant and it eventually recovered.

Liquid Asset to Total Asset Ratio: This is a bank-specific indicator that expresses bank's sovereignty. Cash and cash equivalent along with government security is taken with total asset of the bank.

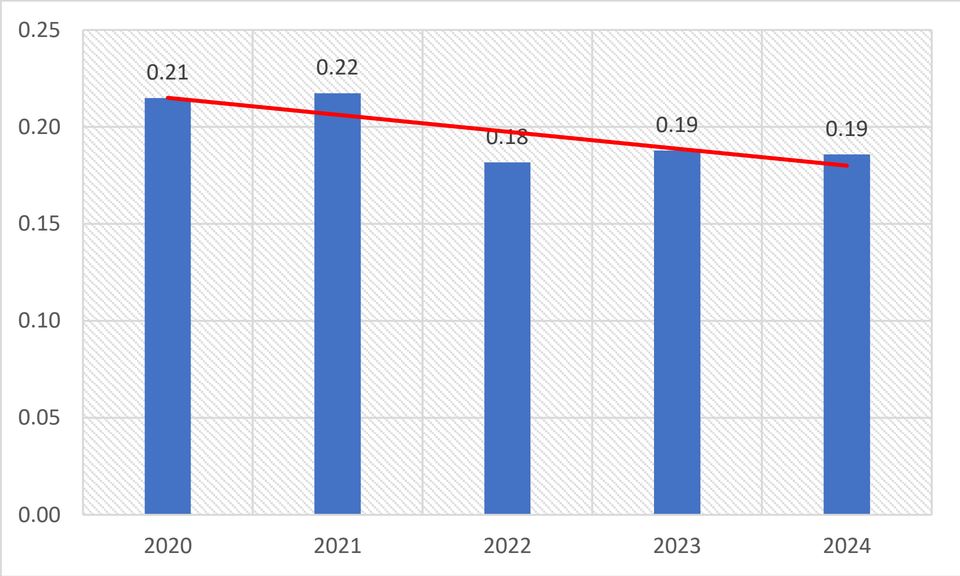


Figure 9: Liquid Asset to Total Asset

This ratio was relatively high in initial years (2020 and 2021) and gradually it decreased later and remain same in last two years. This hints toward stability and reflect consistent sovereignty of the bank.

Loans to Deposit Ratio (LDR/CDR): Loans or credit to deposit ratio is the amount of loans that is being given align with the amount of deposit being generated.

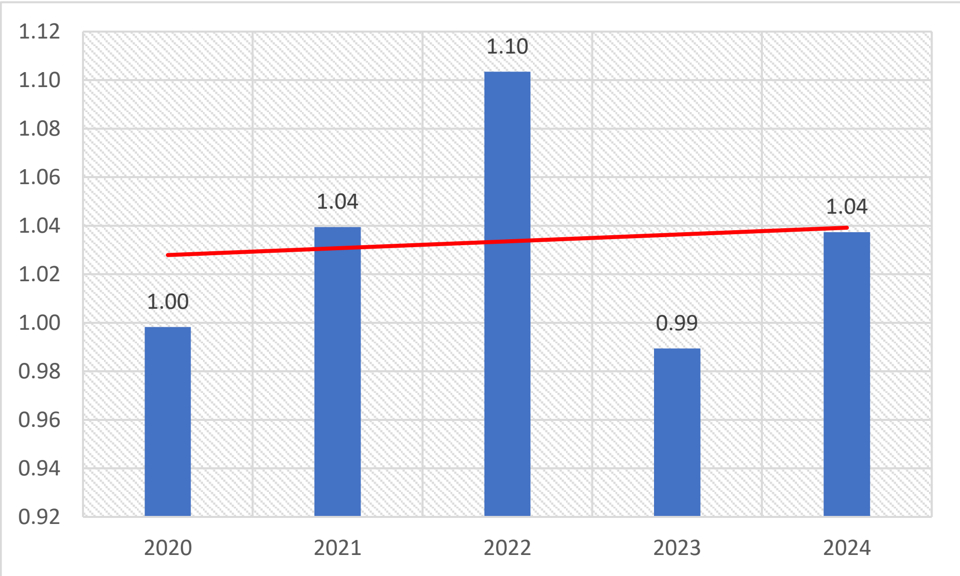


Figure 10: Loans to Deposit Ratio

Loan to deposit ratio stayed around 1 through the entire observed timeline, which suggests that the bank gave proportionate amount of loans to its receiving deposits. In 2022 LDR peeked at 1.10 meaning there might be a temporary liquidity pressure due to market condition presumably post-Covid era.

2.5.1.2 Efficiency

Efficiency Ratio: Efficiency Ratio describes the proportion of operating expenses to operating income

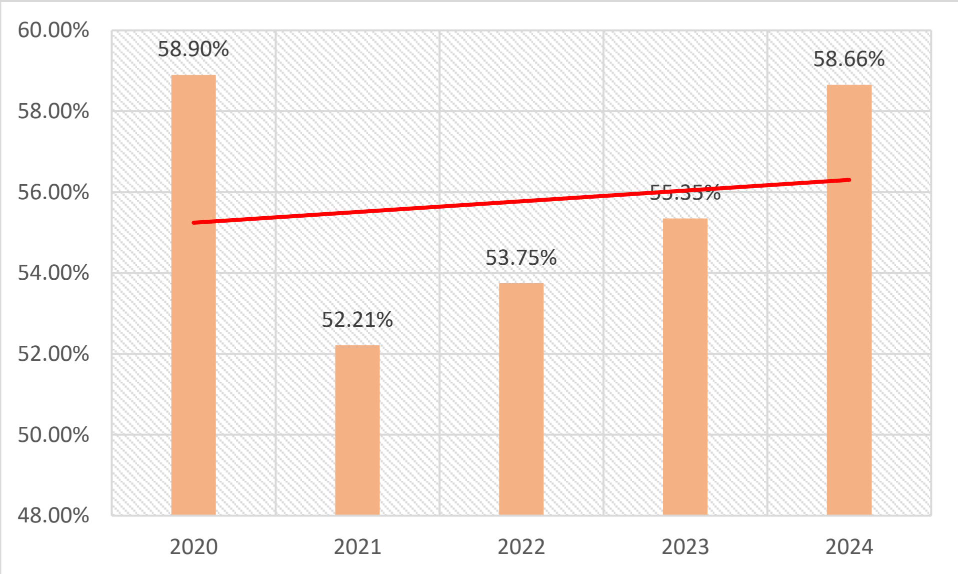


Figure 12:Efficiency Ratio

The efficiency ratio raised to 58.90% in 2020 than declined and again improved in 2024 to 58.66%. This indicates better cost management. But it again increased, showing a rise in operational expenses.

Cost to Income Ratio: Cost-to-Income Ratio is how much cost a company incurred to generate 1BDT.

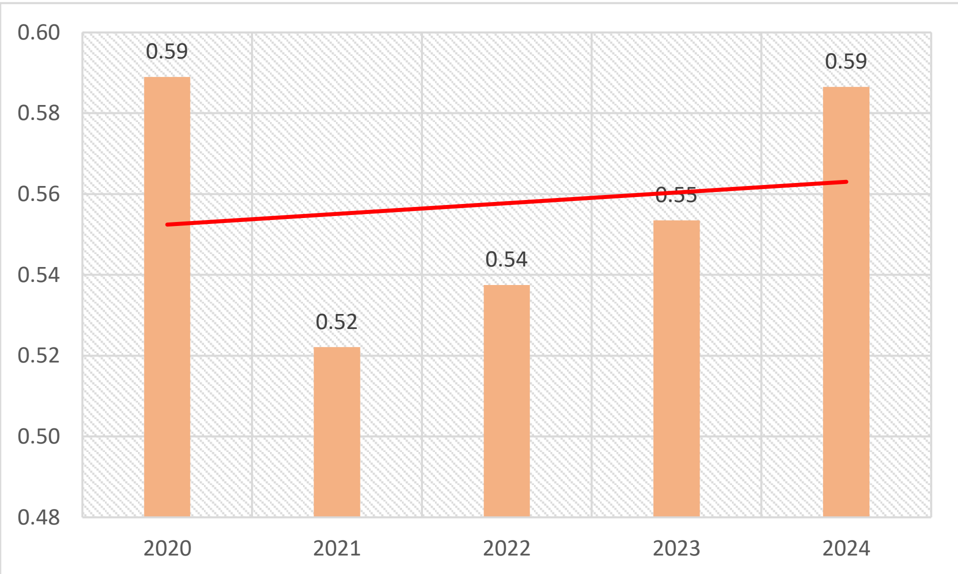


Figure 13: Cost to Income Ratio

UCB CIR ratio followed a similar pattern, improving in 2021 than deteriorating later, indicating an increased in cost.

Non-Performing Loans Ratio (%): Non-performing loans are the loans waiting to be called default and has shown all signs of it. NPL ratio is the ratio of NPL with account of the total loan portfolio of the bank.

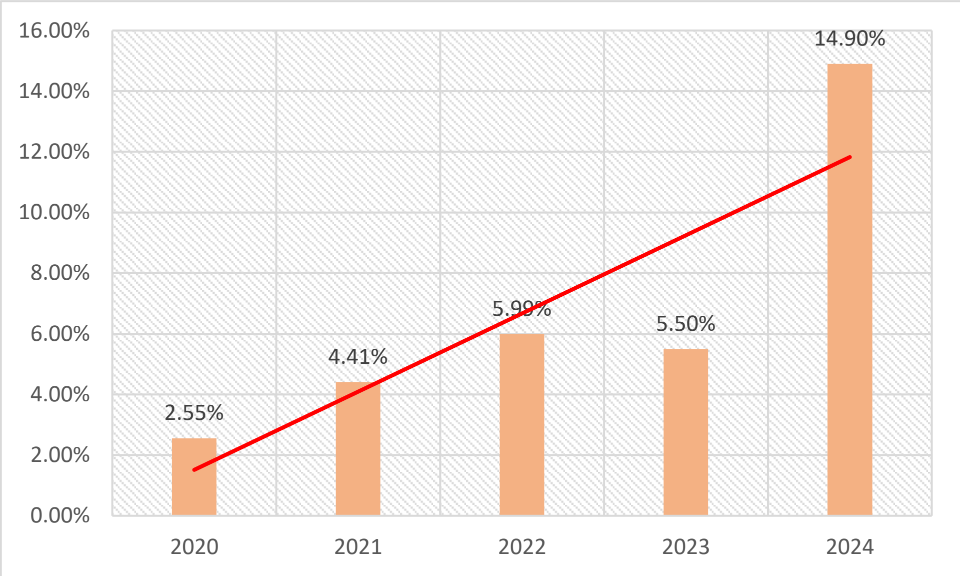


Figure 14:Non-Performing Loans Ratio (%)

NPLs gradually increased from 2020, it just stalled in 2023 but significantly raised to 14.90% in 2024. This clearly indicates that the asset quality or the quality of bank's loan portfolio has deteriorated over the years.

Others: There are some bank-specific ratios which directly do not talk about efficiency but indirectly express the company's current capital situation or cushion for losses as provision.

Capital Adequacy Ratio (CAR): Capital Adequacy is the portion of Tier I and Tier II capital compared to the bank's Risk-weighted asset. It is one of the regulatory ratios provided by BB.

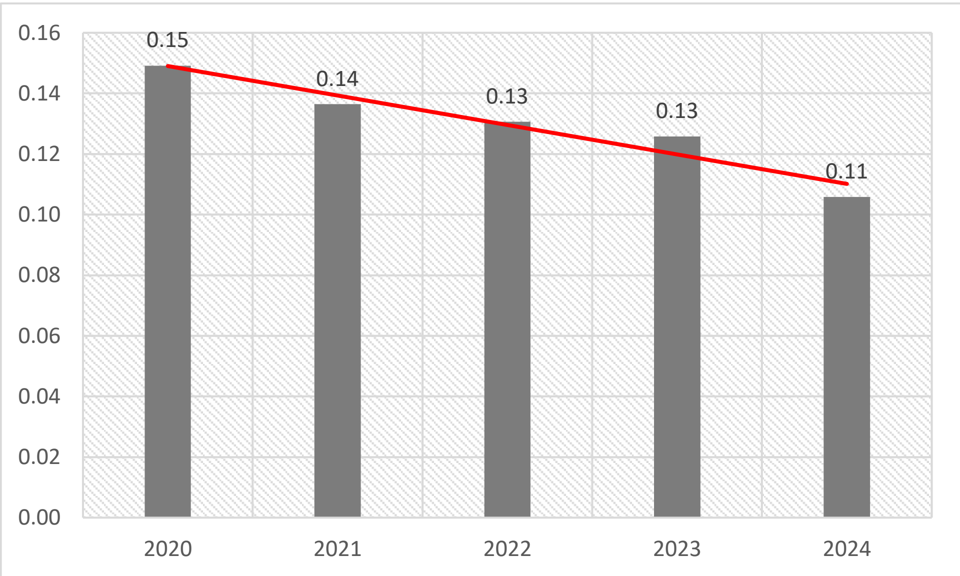


Figure 15: Capital Adequacy Ratio (CAR)

Capital adequacy ratio was aligned with the regulation provided by BB but it slowly but surely declined from 2020 to 2024, which indicates bank's asset quality deteriorated. This also expresses weak solvency of the bank.

Provision for Loan Losses: Provision is the amount of capital kept reserve as the cushion for losses the bank may face. This ratio indicate that how much fund is kept compared to the total loan portfolio to deal with the losses.

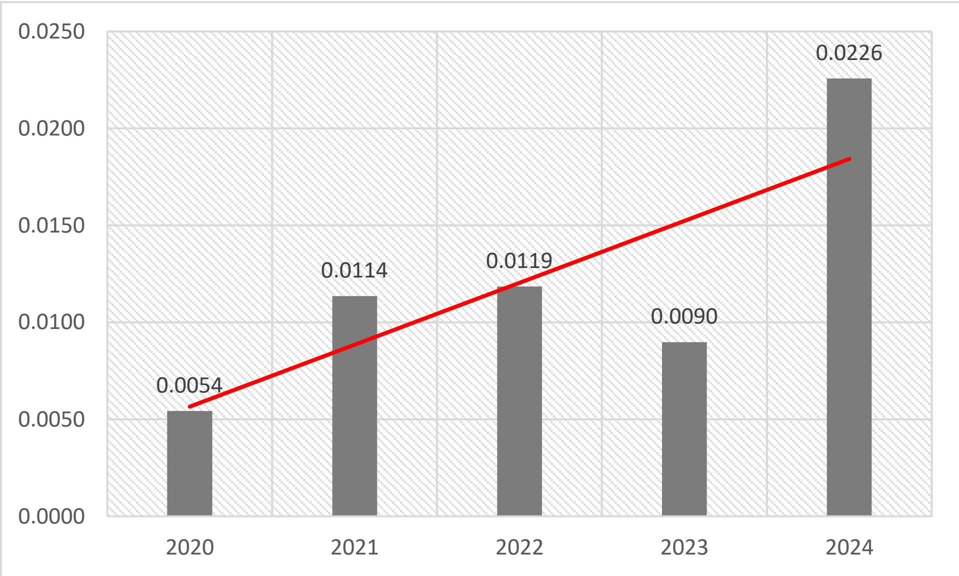


Figure 16: Provision for Credit Losses

As the bank faced heavy losses and to tackle with the increasing number of non-performing loans, provision amount gradually increased and it peaked in 2024 at 0.0226.

2.5.1.3 Profitability

Operating Profit Margin: Operating Profit Margin shows the efficiency of a company's core operations before interest and tax.

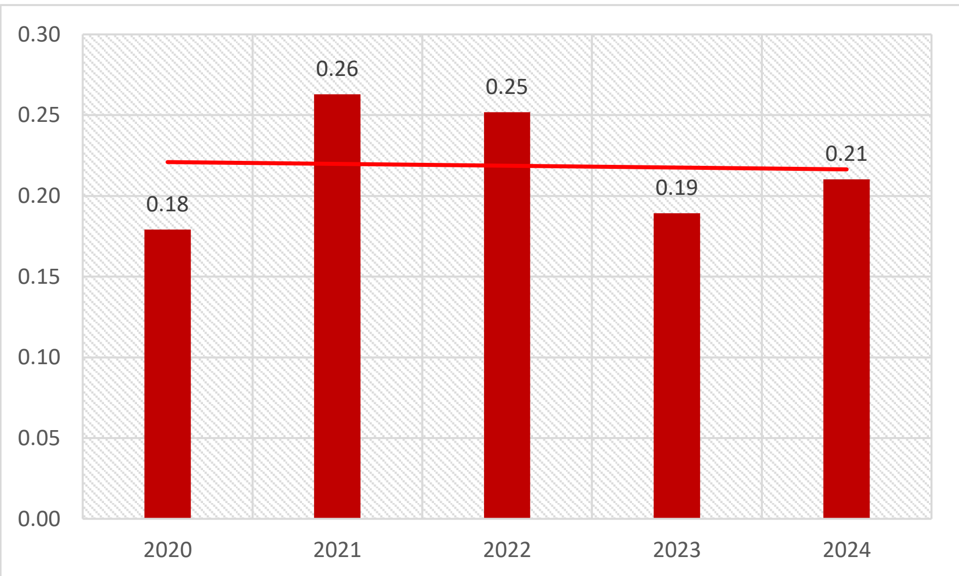


Figure 17:Operating Margin

Operating margin was the highest at 0.26 in 2021 and remained relatively stable (0.25) in 2022. But decline in 2023 followed by an increase in 2024 (0.21). This shows fluctuation in operational efficiency

Net Interest Margin (NIM): NPM is proportion of profit with revenue in other words, the percentage (%) of total income.

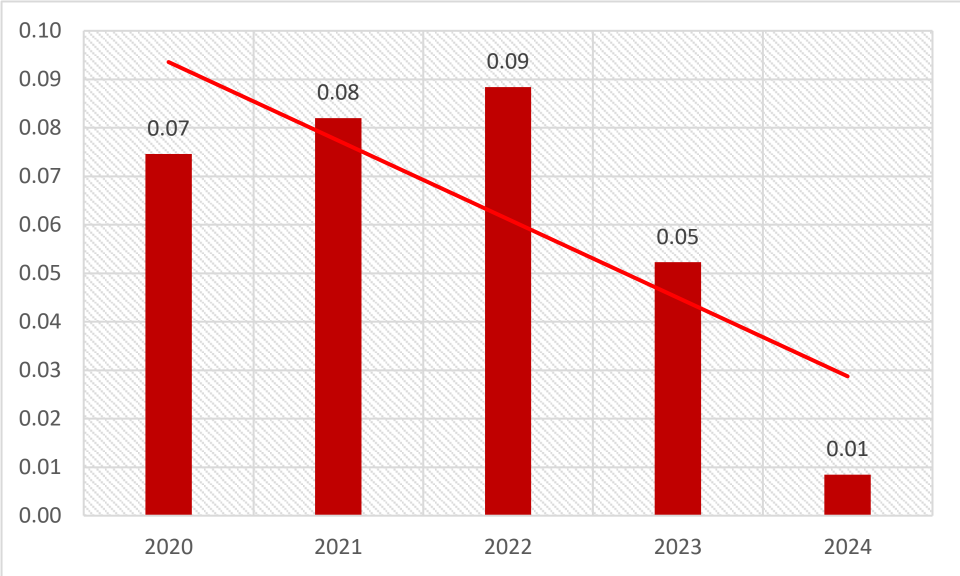


Figure 18:Net Profit Margin (NPM)

NPM was gradually increasing till 2022 but then it significantly decreased to 0.01 in 2024. This shows a significant decrease of profitability.

Return on Assets (ROA): Return on asset is how much profit is being generated with total asset of the bank.

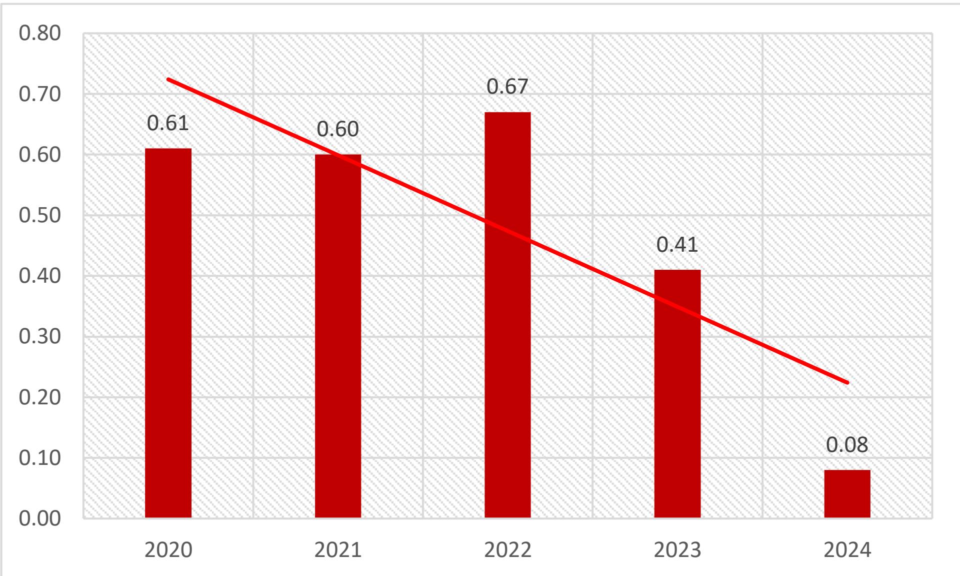


Figure 19:Return on Assets (ROA)

ROA was relatively stable from 2020-2022, where spiked to the highest in 2022 at 0.67. but then significantly reduced to 0.08 in 2024. This suggests weaker efficiency.

Return on Equity (ROE): Return on equity is how much profit is being generated through shareholders' equity.

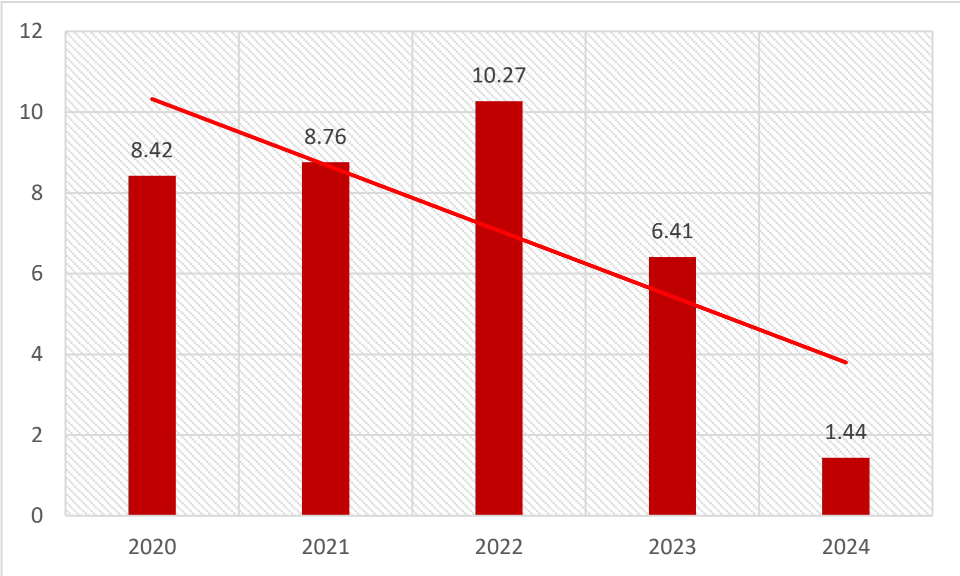


Figure 20:Return on Equity (ROE)

ROE was the highest at 10.27% in 2022. Then there was a significant decline to 1.44% in 2024. This aligns with ROA that profitability is decreasing.

Gross Profit Margin: Gross profit margin is the proportion of income after all direct operating cost is covered.

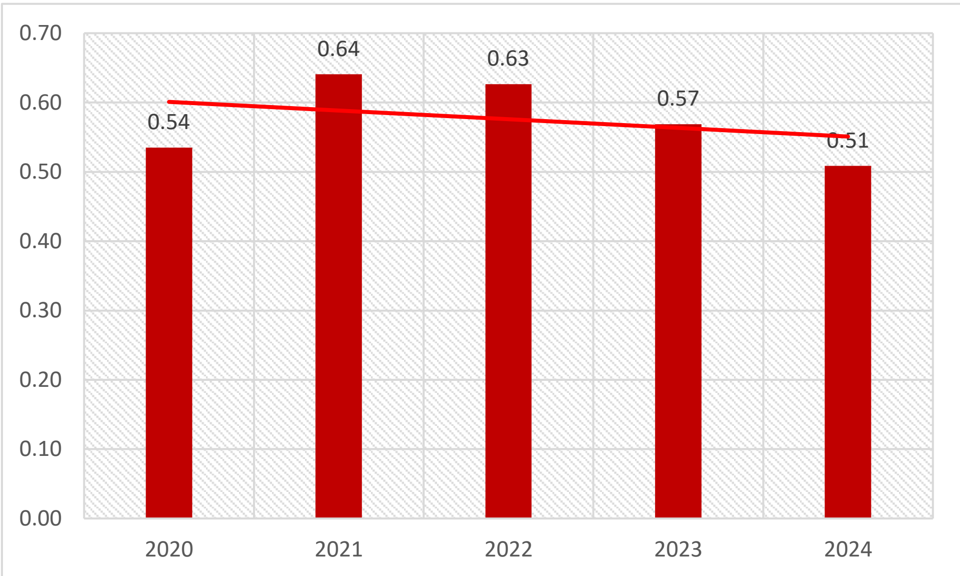


Figure 21:Gross Profit Margin

The gross profit margin of UCB improved in 2021 at 0.64 from 0.54 in 2020. However, after that it gradually declined at 0l51 at 2024, this indicates pressure on income generation.

2.5.1.4 Leverage

Debt-Equity Ratio: Debt-Equity ratio shows how much operating income is financed by debt compared to shareholders' equity.

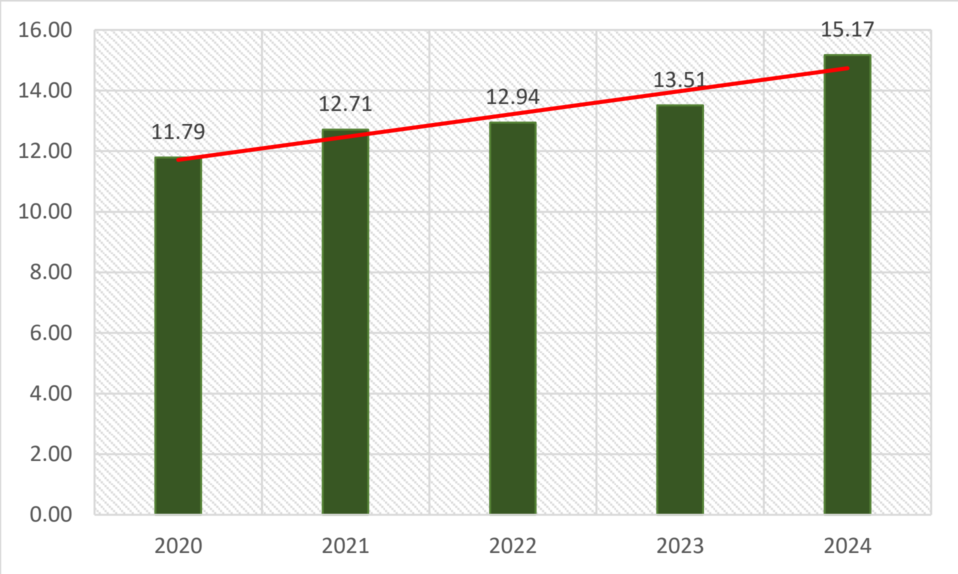


Figure 22: Debt-Equity Ratio

UCB's debt-equity ratio shows a continuity as it increased from 11.79 in 2020 to 15.17 in 2024. This indicates the bank relied on leverage more.

Debt Ratio: Debt ratio is the proportion total debt to total assets.

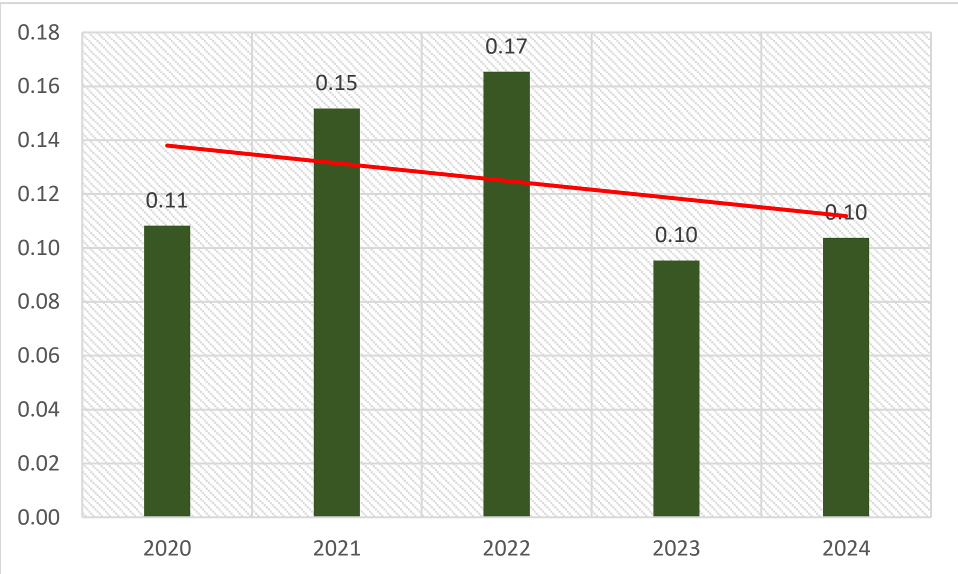


Figure 23:Debt Ratio

UCB's debt ratio was low just spiked at 0.17 in 2022 than gradually decreased to 0.10 in 2024. This indicates that banks total asset was financed by short term debt and only a small portion was financed by long-term debt.

Equity Multiplier: Equity Multiplier is, the measure of how much of total asset is finance through shareholders' equity.

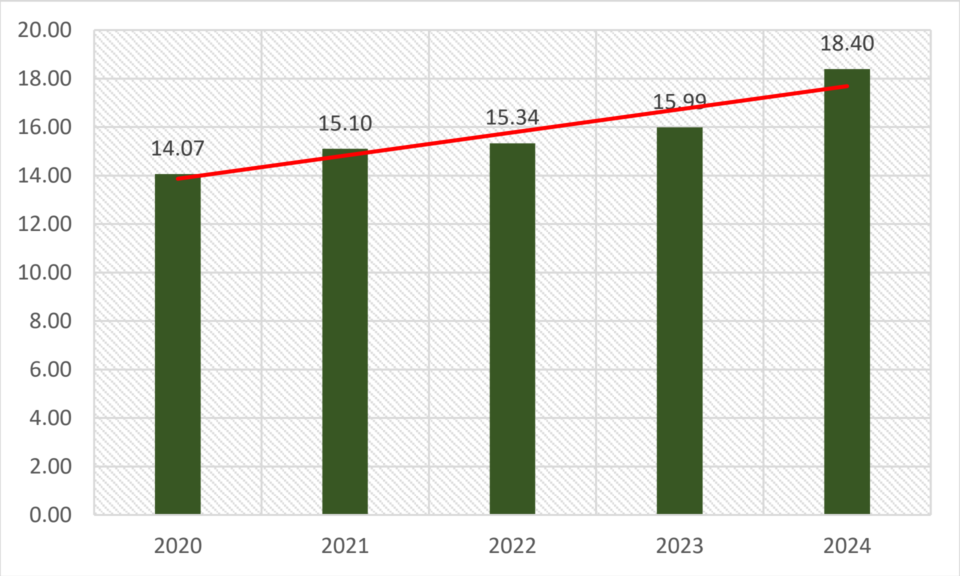


Figure 24: Equity Multiplier

Equity multiplier is gradually increasing from 2020 to 2024, which expresses the increase of leverage meaning that, the bank is relying of shareholders' equity more.

2.5.1.5 Market-Value

Earnings per Share (EPS): EPS is earning each share makes.

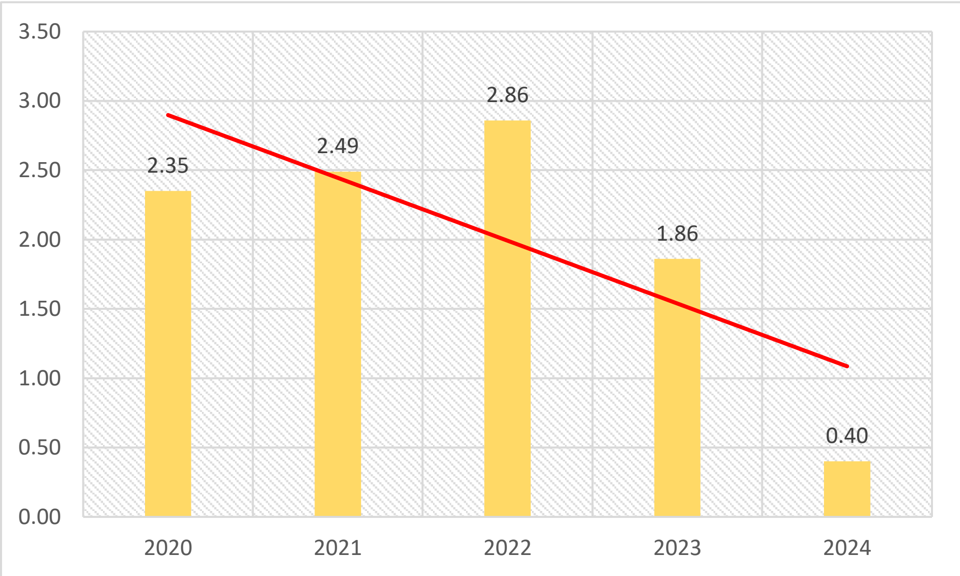


Figure 25:Earning per Share (EPS)

UCB's EPS had a steady increase from BDT 2.35 to BDT 2.86 in 2022, this showed improvement in profitability. But it started to declined significantly to BDT 0.40 in 2024, indicating a significant decrease in earnings.

Price Earning Rato (P/E): P/E ratio is the price investors are willing to pay for 1 BDT of earnings.

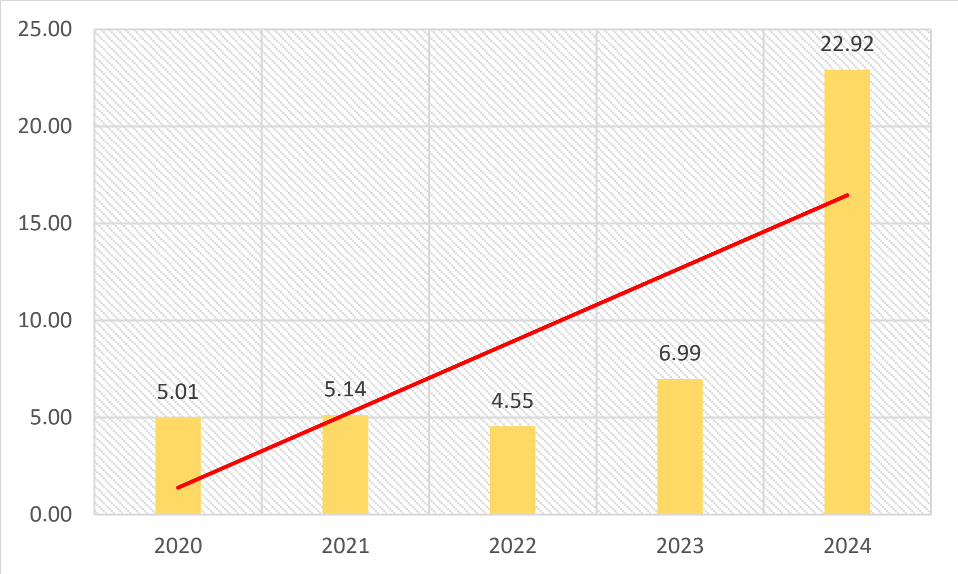


Figure 26:Price Earnings Ratio

UCB's EPS gradually increased throughout the entire observed period, but we see the peak in 2024 at 22.92. This is mainly because of the fall of P/E (0.40)

Dividend Yield: Dividend Yield shows the percentage (%) return to shareholders in the form of dividends compared to its market.

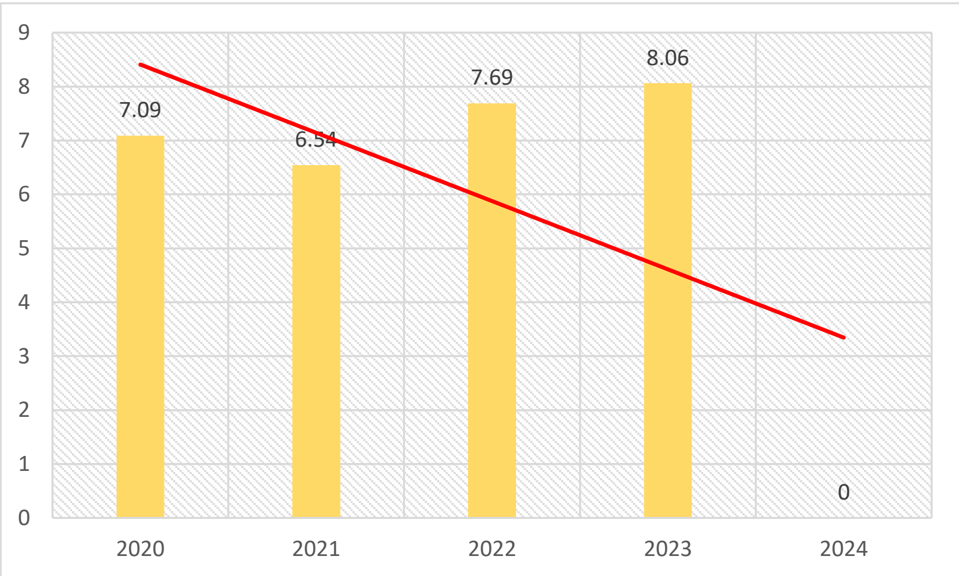


Figure 27:Dividend Yield

Dividend yield remained attractive ranging from 6.5% to 8.1% during 2020-2023, appealing to income-focused investors. In 2024, dividend yield dropped to 0%, reflecting no cash payout and declining market price.

Market Capitalization: Market Capitalization represents the total market value of the bank's outstanding shares.

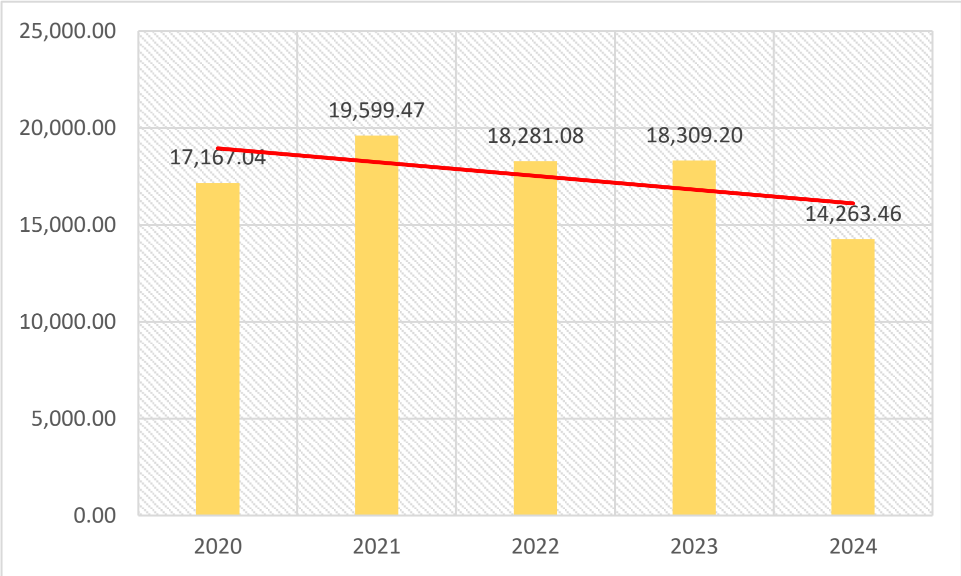


Figure 28:Market Capitalization

Market capitalization peaked in 2021 and declined thereafter, falling to BDT 14,263.46 million in 2024, which signals weakened market confidence and reduced investor valuation.

2.5.1.6 Horizontal Analysis

2.5.1.6.1 Horizontal Analysis of Balance Sheet

UNITED COMMERCIAL BANK PLC

BALANCE SHEET

Particulars	2024	Δ%	2023	Δ%	2022	Δ%	2021	Δ%	2020	Δ%	2019
Property and Assets											
Cash	45,443	26%	36,186	17%	30,939	22%	25,380	2%	24,948	-6%	26,403
Balance with other banks and financial institutes	17,725	-16%	21,177	26%	16,872	-13%	19,409	-5%	20,468	69%	12,123
Money at call on short notice	2,500	100%	-	-	-	-100%	3,200	244%	930	-45%	1,700
Investments	87,851	6%	82,864	8%	76,435	-6%	81,388	25%	65,323	13%	57,801
Loan and Advances	572,829	13%	505,969	8%	468,605	16%	402,482	14%	351,684	9%	322,728
Fix assets including premises, furniture and fixture	17,057	0	17,016	17%	14,579	-1%	14,721	1%	14,540	1%	14,455
Other assets	25,371	16%	21,799	6%	20,647	10%	18,734	22%	15,414	33%	11,550
Non-banking assets	3	100%	-	-	-	-	-	-	-	-	-
Total Property and Assets	**768,779**	**12%**	**685,012**	**9%**	**628,077**	**11%**	**565,314**	**15%**	**493,307**	**10%**	**446,760**
Liability and Capital											
Liabilities											
Borrowings from other banks, financial institutions and agents	19,060	11%	17,167	-18%	20,877	45%	14,353	408%	2,827	-18%	3445
Borrowing from Bangladesh Bank	40,044	22%	32,916	-51%	67,824	17%	58,150	44%	40,272	83%	22,067
Convertible subordinate bonds	11,703	12%	10,480	-9%	11,480	-14%	13,300	-18%	16,300	6%	15,400
Money at call on short notice	8,980	91%	4,709	27%	3,710	100%	-	-	-	-	-
Deposits and other accounts	554,215	8%	513,395	21%	426,028	9%	389,901	10%	353,982	7%	330,787
Other liabilities	92,987	46%	63,501	11%	57,200	10%	52,168	16%	44,860	6%	42,279
42,279Total Liabilities	**726,989**	**13%**	**642,168**	**9%**	**587,120**	**11%**	**527,872**	**15%**	**458,241**	**11%**	**413,977**
Capital and Shareholders' Equity											
Total Shareholders' Equity	**41,791**	**-2%**	**42,845**	**5%**	**40,957**	**9%**	**37,442**	**7%**	**35,066**	**7%**	**32,783**
Total Liabilities and Shareholders' Equity	**768,779**	**12%**	**685,012**	**9%**	**628,077**	**11%**	**565,314**	**15%**	**493,307**	**10%**	**446,760**

Note: Amount in BDT Million

Table 1: Horizontal Analysis of Balance Sheet

2.5.1.6.2 Horizontal Analysis of Profit and Loss Statement

UNITED COMMERCIAL BANK PLC

PROFIT and LOSS STATEMENT

Particulars	2024	%	2023	%	2022	%	2021	%	2020	%	2019
Interest Income	56,115	48%	37,882	20%	31,685	16%	27,324	1%	27,307	-12%	30,949
Interest paid on deposit and borrowings etc	35,258	59%	22,150	30%	17,010	22%	13,927	-22%	17,796	-12%	20,151
Net Interest Income	**20,857**	**33%**	**15,732**	**7%**	**14,674**	**10%**	**13,396**	**41%**	**9,511**	**-12%**	**10,798**
Investment income	7,439	27%	5,872	3%	5,685	4%	5,464	-11%	6,135	26%	4,853
Commission, exchange and brokerage	7,927	7%	7,385	-7%	7,899	38%	5,739	22%	4,694	-5%	4,920
Other operating income	246	3%	240	-9%	264	20%	221	49%	148	7%	138
Total operating income	**36,469**	**25%**	**29,229**	**2%**	**28,523**	**15%**	**24,820**	**21%**	**20,488**	**-1%**	**20,709**
Salary and allowances	9,372	10%	8,540	12%	7,659	7%	7,167	13%	6,354	7%	5,912
Rent, taxes, insurance, electricity etc.	1,602	-21%	2,040	26%	1,624	45%	1,122	13%	996	-0.21%	998
Legal expenses	159	75%	91	-4%	95	-26%	129	37%	94	40%	67
Postage, stamps, telecommunications etc.	223	1%	222	1%	219	19%	185	6%	175	-8%	189
Stationery, printing, advertisement etc.	2,074	23%	1,688	0%	1,694	36%	1,249	-16%	1,483	21%	1,227
Chief executive's salary and fees	18	8%	16	17%	14	5%	13	-10%	15	9%	14
Directors' fees	5	63%	3	-10%	4	37%	3	-4%	3	-22%	3
Auditors' fees	1	20%	1	-33%	2	50%	1	-33%	2	50%	1
Depreciation and repair of banks assets	2,518	3%	2,449	18%	2,074	14%	1,822	13%	1,610	12%	1,438
Other expenses	5,418	22%	4,453	21%	3,671	25%	2,945	2%	2,900	12%	2,580
Total Operating Expenses	**21,391**	**10%**	**19,503**	**14%**	**17,054**	**17%**	**14,636**	**7%**	**13,631**	**10%**	**12,430**
Profit/(Loss) before provision	**15,078**	**55%**	**9,726**	**-15%**	**11,469**	**13%**	**10,184**	**49%**	**6,857**	**-17%**	**8,279**
Loans and advances	12,220	192%	4,185	-26%	5,660	30%	4,362	97%	2,211	-21%	2,796
Recovery from write-off	-369	-10%	-410	73%	-237	131%	-103	-1%	-103	-39%	-169
Diminution in value of investments	862	1308%	61	-90%	612	-360%	-235	-46%	-438	-165%	673
Off balance sheet items	217	-45%	391	-181%	-482	-188%	549	129%	240	416%	47
Other provisions	3	-99%	320	100%	0	-	0	-	0	-100%	0
Total Provisions	**12,933**	**184%**	**4,548**	**-18%**	**5,553**	**21%**	**4,574**	**140%**	**1,909**	**-43%**	**3,347**
Total Profit/(Loss) Before Taxes	**2,145**	**-59%**	**5,177**	**-12%**	**5,916**	**5%**	**5,610**	**13%**	**4,948**	**0.323%**	**4,932**
Provision for Taxation:											
Current tax expense	4,313	44%	2,987	-5%	3,133	-18%	3,823	45%	2,633	-5%	2,783
Deferred tax expense /(income)	-2,775	462%	-494	-60%	-1,241	-11%	-1,391	157%	-542	-13%	-623
Total Provision for Taxation	**1,538**	**-38%**	**2,492**	**32%**	**1,892**	**-22%**	**2,433**	**16%**	**2,091**	**-3%**	**2,160**
Net Profit After Taxation	**608**	**-77%**	**2,685**	**-33%**	**4,024**	**27%**	**3,177**	**11%**	**2,857**	**3%**	**2,772**

Table 2: Horizontal Analysis of Income Statement

2.5.1.7. Vertical Analysis

2.5.1.7.1 Vertical Analysis of Balance Sheet

UNITED COMMERCIAL BANK PLC

BALANCE SHEET

Particulars	2024	Δ%	2023	Δ%	2022	Δ%	2021	Δ%	2020	Δ%	2019
Property and Assets											
Cash	45,443	6%	36,186	5%	30,939	5%	25,380	4%	24,948	5%	26,403
Balance with other banks and financial institutes	17,725	2%	21,177	3%	16,872	3%	19,409	3%	20,468	4%	12,123
Money at call on short notice	2,500	0.33%	-	0%	-	0%	3,200	1%	930	0%	1,700
Investments	87,851	11%	82,864	12%	76,435	12%	81,388	14%	65,323	13%	57,801
Loan and Advances	572,829	75%	505,969	74%	468,605	75%	402,482	71%	351,684	71%	322,728
Fix assets including premises, furniture and fixture	17,057	2%	17,016	2%	14,579	2%	14,721	3%	14,540	3%	14,455
Other assets	25,371	3%	21,799	3%	20,647	3%	18,734	3%	15,414	3%	11,550
Non-banking assets	3	0%	-	0%	-	-	-	-	-	-	-
Total Property and Assets	**768,779**	**100%**	**685,012**	**100%**	**628,077**	**100%**	**565,314**	**100%**	**493,307**	**100%**	**446,760**
Liability and Capital											
Liabilities											
Borrowings from other banks, financial institutions and agents	19,060		17,167		20,877		14,353		2,827		3445
Borrowing from Bangladesh Bank	40,044		32,916		67,824		58,150		40,272		22,067
Convertible subordinate bonds	11,703		10,480		11,480		13,300		16,300		15,400
Money at call on short notice	8,980		4,709		3,710		-		-		-
Deposits and other accounts	554,215		513,395		426,028		389,901		353,982		330,787
Other liabilities	92,987		63,501		57,200		52,168		44,860		42,279
42,279Total Liabilities	**726,989**		**642,168**		**587,120**		**527,872**		**458,241**		**413,977**
Capital and Shareholders' Equity											
Total Shareholders' Equity	**41,791**		**42,845**		**40,957**		**37,442**		**35,066**		**32,783**
Total Liabilities and Shareholders' Equity	**768,779**		**685,012**		**628,077**		**565,314**		**493,307**		**446,760**

Note: Amount in BDT Million

Table 3: Vertical Analysis of Balance Sheet

2.5.1.7.1 Vertical Analysis of Profit and Loss Statement

UNITED COMMERCIAL BANK PLC

PROFIT and LOSS STATEMENT

Particulars	2024	%	2023	%	2022	%	2021	%	2020	%	2019	%
Interest Income	56,115	78%	37,882	74%	31,685	70%	27,324	71%	27,307	71%	30,949	81%
Interest paid on deposit and borrowings etc	35,258	49%	22,150	43%	17,010	37%	13,927	36%	17,796	46%	20,151	56%
Net Interest Income	**20,857**	**29%**	**15,732**	**31%**	**14,674**	**32%**	**13,396**	**35%**	**9,511**	**25%**	**10,798**	**25%**
Investment income	7,439	10%	5,872	11%	5,685	12%	5,464	14%	6,135	16%	4,853	9%
Commission, exchange and brokerage	7,927	11%	7,385	14%	7,899	17%	5,739	15%	4,694	12%	4,920	7%
Other operating income	246	0.34%	240	0.47%	264	1%	221	1%	148	0.387%	138	2%
Total operating income	**36,469**	**51%**	**29,229**	**57%**	**28,523**	**63%**	**24,820**	**64%**	**20,488**	**54%**	**20,709**	**44%**
Salary and allowances	9,372	13%	8,540	17%	7,659	17%	7,167	18%	6,354	17%	5,912	10%
Rent, taxes, insurance, electricity etc.	1,602	2%	2,040	4%	1,624	4%	1,122	3%	996	3%	998	2%
Legal expenses	159	0.22%	91	0.18%	95	0%	129	0.332%	94	0.246%	67	0%
Postage, stamps, telecommunications etc.	223	0.31%	222	0.43%	219	0%	185	0.476%	175	0.456%	189	0%
Stationery, printing, advertisement etc.	2,074	3%	1,688	3%	1,694	4%	1,249	3%	1,483	4%	1,227	1%
Chief executive's salary and fees	18	0.02%	16	0.03%	14	0%	13	0.035%	15	0.039%	14	0%
Directors' fees	5	0.01%	3	0.01%	4	0%	3	0.007%	3	0.007%	3	0%
Auditors' fees	1	0%	1	0	2	0%	1	0.003%	2	0.005%	1	0%
Depreciation and repair of banks assets	2,518	4%	2,449	5%	2,074	5%	1,822	5%	1,610	4%	1,438	1%
Other expenses	5,418	8%	4,453	9%	3,671	8%	2,945	8%	2,900	8%	2,580	3%
Total Operating Expenses	**21,391**	**30%**	**19,503**	**38%**	**17,054**	**37%**	**14,636**	**38%**	**13,631**	**36%**	**12,430**	**19%**
Profit/(Loss) before provision	**15,078**	**21%**	**9,726**	**19%**	**11,469**	**25%**	**10,184**	**26%**	**6,857**	**18%**	**8,279**	**25%**
Loans and advances	12,220	17%	4,185	8%	5,660	12%	4,362	11%	2,211	6%	2,796	4%
Recovery from write-off	-369	-1%	-410	-1%	-237	-1%	-103	-0.265%	-103	-0.27%	-169	0%
Diminution in value of investments	862	1.20%	61	0.12%	612	1%	-235	-1%	-438	-1%	673	0%
Off balance sheet items	217	0%	391	1%	-482	-1%	549	1%	240	1%	47	1%
Other provisions	3	0%	320	1%	0	-	0	0%	0	0%	0	0%
Total Provisions	**12,933**	**18%**	**4,548**	**9%**	**5,553**	**12%**	**4,574**	**12%**	**1,909**	**5%**	**3,347**	**4%**
Total Profit/(Loss) Before Taxes	**2,145**	**3%**	**5,177**	**10%**	**5,916**	**13%**	**5,610**	**14%**	**4,948**	**13%**	**4,932**	**21%**
Provision for Taxation:												
Current tax expense	4,313	6%	2,987	6%	3,133	7%	3,823	10%	2,633	7%	2,783	10%
Deferred tax expense /(income)	-2,775	-4%	-494	-1%	-1,241	-3%	-1,391	-4%	-542	-1%	-623	0%
Total Provision for Taxation	**1,538**	**2%**	**2,492**	**5%**	**1,892**	**4%**	**2,433**	**6%**	**2,091**	**5%**	**2,160**	**10%**
Net Profit After Taxation	**608**	**1%**	**2,685**	**5%**	**4,024**	**9%**	**3,177**	**8%**	**2,857**	**7%**	**2,772**	**11%**

Table 4: Vertical Analysis of Income Statem

2.5.1.8 DuPont Analysis

DuPont analysis consists of three components, using which we can calculate the fourth (ROE). From the above analysis we can see UCB's last 5 years performance.

DuPont Analysis						
Particulars	**Year**	**2020**	**2021**	**2022**	**2023**	**2024**
Net Profit Margin (%)		7.46%	8.20%	8.84%	5.23%	0.85%
Asset Turnover (times)		0.078	0.069	0.073	0.075	0.093
Equity Multiplier (times)		14.07	15.1	15.34	15.98	18.4
ROE (%)		**8.42%**	**8.76%**	**10.27%**	**6.41%**	**1.44%**

Table 5: DuPont Analysis Table

Firstly, we can see UCB's NPM improved steadily from 7.46% in 2020 to 8.84% in 2022, indicating stronger profitability. However, it declined sharply to 5.23% in 2023 and further to 0.85% in 2024, reflecting significant earnings pressure. On the other hand, UCB's asset turnover (AT) was relatively low and stable during the observed period, gradually improving from 0.078 to 0.093 in 2024. This suggests slight improvement. Moreover, the equity multiplier of UCB increased from 14.07 to 18.4 in 2024, showing higher financial leverage. Lastly, calculated ROE peaked at 10.27% in 2022, this should be driven by higher profit margins. Then there was a sharp decline to 1.44% in 2024, highlights that increased leverage and insufficient maximization of asset.

From the DuPont analysis we can see that UCB's performance was assumably influenced by changes in profitability. While asset utilization and leverage improved over time, the significant decline in net profit margin (NPM) in recent years significantly reduced shareholder returns. This indicates that UCB must focus on restoring profitability in order to improving overall financial performance.

2.5.1.9 Economic Value Added (EVA)

Economic Value Added or EVA is basically the value created by the bank after covering full cost of capital.

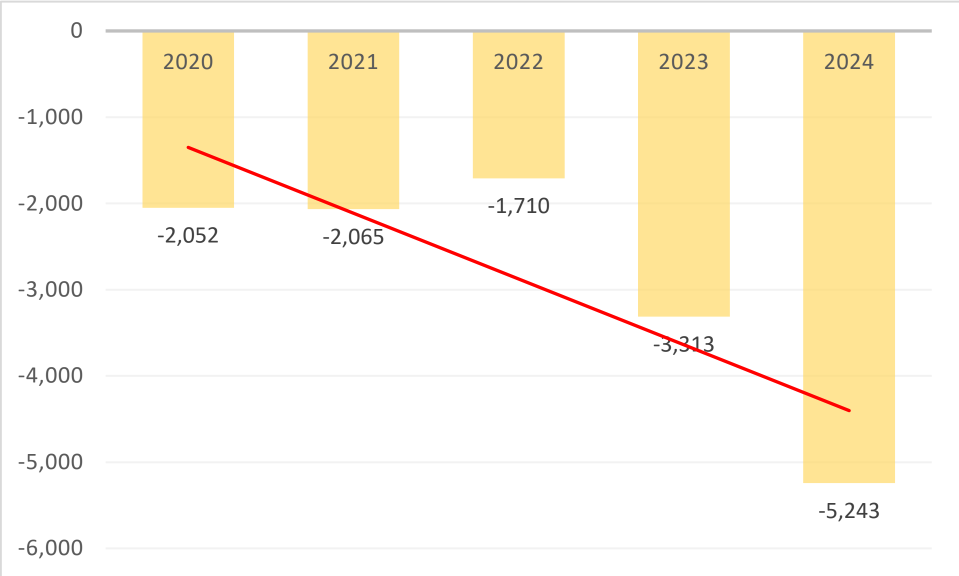


Figure 29:Economic Value Added (EMV)

UCB's EVA remained negative throughout the entire observation period, where it was increasing negatively, indicating that UCB was unable to generate returns exceeding its cost of capital.

2.5.1.10 Market Value Added (MVA)

Market Value Added or MVA is the difference between market value of the bank and the capital invested by the shareholders.

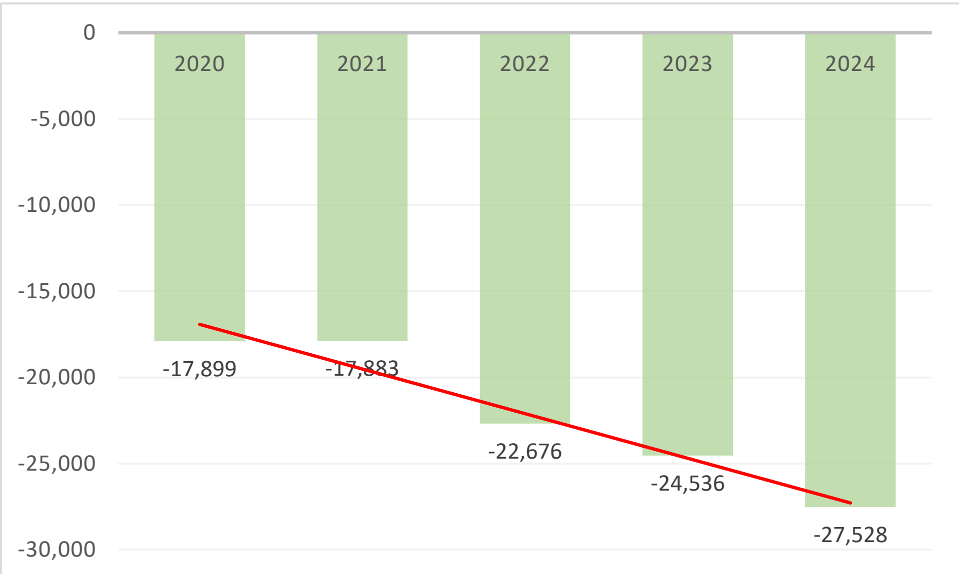


Figure 30:Market Value Added (MVA)

UCB's MVA aligned with EVA which also was negative, we can see MVA decreasing as well where we see the lowest in 2024 at -27,528, indicating that the market valuation of UCB was below the Shareholder’s investment. The steady decline from BDT -17,899 million in 2020 to BDT -27,528 million in 2024 suggests growing investor pessimism and erosion of shareholder wealth over time.

The continuous negative EVA and MVA indicate that UCB failed to create economic and market value during the study period. The worsening trend in recent years highlights declining profitability, rising capital costs, and reduced market confidence.

2.5.2 Accounting Practices

This section reviews the accounting practices of UCB from different accounting aspects based on its financial statements and annual reports over the last five years (2020–2024).

2.5.2.1 Core Accounting Principles

As a bank UCB must follow the guideline of the regulatory institute or Bangladesh bank therefore follows the generally accepted accounting principles (GAAP) which also aligns with:

- International Financial Reporting Standards (IFRS)
- Bangladesh Financial Reporting Standards (BFRS)

The financial statements reflect the following core accounting principles:

Going Concern Principle

The bank prepares its financial statements on a going concern basis, assuming continued operations in the foreseeable future. There is no indication of liquidation or cessation of business in any of the reviewed years.

Consistency Principle

Accounting policies, measurement bases, and presentation formats are applied consistently from year to year. Any changes (e.g., restatement of comparative figures) are properly disclosed in the notes.

Accrual Principle

Income and expenses are recognized when earned or incurred, not when cash is received or paid.

Prudence (Conservatism)

The bank maintains conservative provisioning policies, particularly for:

- Non-performing loans (NPLs)
- Investment impairment
- Off-balance-sheet activities

We can see this from the significant provisioning levels in recent years.

Materiality and Full Disclosure

All material items affecting the financial position and performance are disclosed in the notes to the accounts.

2.5.2.2. Method of Accounting

UCB follows the accrual basis of accounting. Interest income is recognized on an accrual basis, except for classified loans where income is recognized on a cash basis as per Bangladesh Bank guidelines. Expenses are recognized when incurred, regardless of cash outflow.

2.5.2.3 Accounting Cycle

The bank must follow a complete and formal accounting cycle as its monitored and regulated by Bangladesh Bank as its regulator. The cycle goes somewhat like the following:

- A financial transaction is identified
- The transaction is journalized
- Ledger accounts are posted
- Trail balance is prepared
- Entries are immediately adjusted for accruals, provisions, depreciation, etc.
- Adjusted trail balance is prepared
- Financial statement is prepared
- Entries are closed

2.5.2.4 Depreciation Methods

UCB follows depreciation method that aligns with IAS 16 – Property, Plant and Equipment. Straight-Line Method (SLM) is used for recording depreciation. Depreciation is charged systematically over the estimated useful lives of assets such as, buildings, furniture and fixtures, IT equipment, office equipment and so on. Assets are reviewed periodically for adjustment and any loss is recognized when necessary.

2.2.2.5 Accounting Disclosures

UCB shows transparency by providing complete accounting disclosures that includes, statement of accounting policies, notes to the financial statements, risk disclosure, capital adequacy disclosure, segment reporting, contingent liabilities and commitments. The bank must maintain this level on disclosure to abide by the regulation mandated by Bangladesh Bank.

2.6 Operations Management and Information System

2.6.1 Core Banking System (CBS) - FLEXCUBE

UCB uses Oracle FLEXCUBE as its Core Banking System (CBS).

FLEXCUBE supports:

- Real-time transaction processing
- Centralized banking operations
- Integration across and within branches, sub-branches, and digital channels

The CBS enables UCB to operate as a fully centralized, online, real-time bank.

2.6.2 Use of Information Systems

UCB must collect and use data extensively, for that purpose information system is used. Collecting customers' data and process it for activities such as, customer transactions, loan origination and monitoring, deposit management, trade finance, treasury operations and so on. Data is stored in centralized databases with secure access, backup and disaster recovery systems and regulatory data repositories Information must be shared due to various activities, and they are shared through, internet banking (UNET) system, mobile banking and digital platforms and internal MIS and dashboards for management

2.6.3 Database and Office Management Software

Along with having own website UCB uses a combination of:

- Oracle FLEXCUBE
- MS Office
- Outlook
- E-KYC

2.7 Industry and Competitive Analysis

Competition is fierce in the banking sector of Bangladesh with stringent regulations, fast pace digital transformation and growing customer demands. Against this backdrop, UCB is a private commercial bank functioning in the industry and has been facing the challenge of maintaining prevailing competence position by changing strategies to meet competitive standard as well as long run growth. This part analyses strategically the competitive situation of UCB by use of Porters Five Forces and a SWOT analysis, with special focus on stating into all sources for competitive advantage.

2.7.1 Porter's Five Forces Analysis

Porter's Five Forces is arguably a widely-used industrial structure assessment product which takes into consideration the economist factors that affect profitability and strategic positioning of an industry

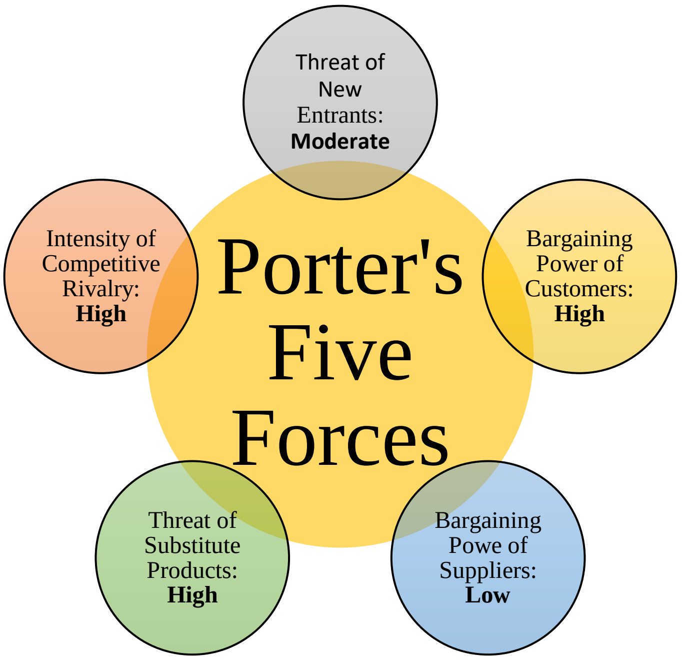


Figure 31:UCB's Porter's Five Forces Analysis

1. Threat of New Entrants – Moderate

The bargaining power of new entries in the bank sector of Bangladesh is moderate. Rigorous restrictions from Bangladesh Bank, such as high minimum capital requirements and strict licensing processes with rigorous compliance obligations act as a barrier to entry but many new private banks and NBFIs are entering authority. Further competitive pressure comes from fintech and digital financial service providers providing alternative financing solutions. But old school banks such as UCB have a powerful branding, customer loyalty and a massive network of branches that mitigate the threat of new entrants.

2. Bargaining Power of Customers – High

Buyer Power There are a large number of commercial banks providing comparable services, offering the customer significant leverage. "A customer can easily move from one bank to another based on service quality, interest rates, digital convenience or relationship management. Corporate and big institutional customers in particular have plenty of bargaining power-to-transaction, profits. To counter this force, UCB focuses on relationships banking, tailored financial services and service diversification.

3. Bargaining Power of Suppliers – Low

In banking, suppliers are predominantly depositors, technology vendors and human resources. Retail depositors have little bargaining power. Institutional depositors or customers may exercise some influence through the use of deposit pricing and service expectation. Suppliers have slightly more power with reliance on advanced banking technology and experienced professionals. However, UCB's well spread deposit composition and established HR policies ensure that supplier power remains to be low.

4. Threat of Substitute Products – High

The risk of substitution is moderate to high, with mobile financial services (MFS), fintech companies and non-bank financial institutions enjoying unprecedented growth. Traditional banking functions are being replaced by mobile wallets, alternative payment systems and alternative sources of financing. UCB is combating this challenge with digital banking programs, mobile financial services (such as Upay), and technology-led service delivery.

5. Intensity of Competitive Rivalry – High

Rivalry among competing banks is hot, there are many numbers of state-owned commercial banks, private commercial banks and foreign others bank operating their business on the market. Retail banking, SME finance and corporate loans are particularly competitive. Banks vie on price, quality of service, technology and brand standing. In Bangladesh's intense and competitive environment, UCB uses a strategy of sound and structured risk management, offering a broad product range aimed at huge potential customer pool.

Finally, the SWOT analysis come to a conclusion that, UCB competes in an oligopoly industry where differentiation is the key and performance forces depend on efficient operations and strong leadership rather than price competition.

2.7.2 SWOT Analysis

SWOT analysis is one of the best models to understand a company's strength, opportunity, weakness and threats through a structured manner. In this analysis we are trying to see the bank's present situation of competitive position and future strategical direction.

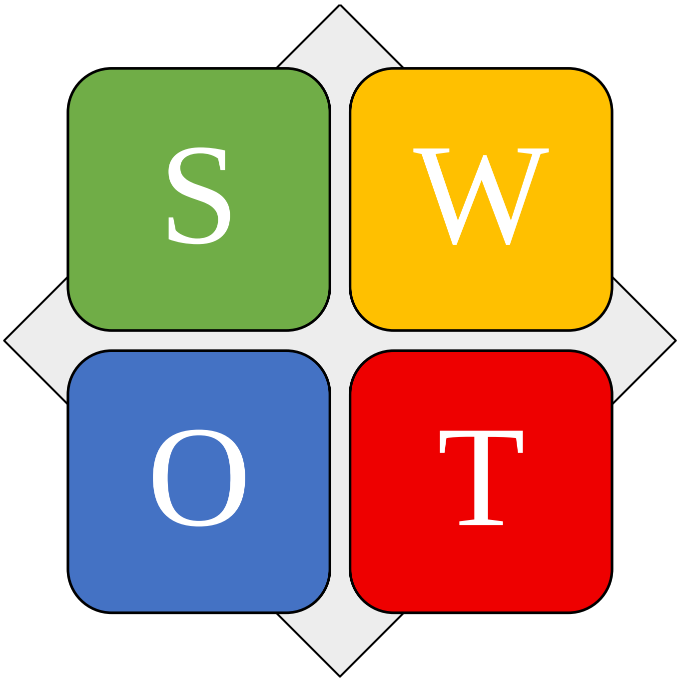


Figure 32: SWOT Analysis of UCB

1. **Strengths**
   - Strong regulatory compliance framework
   - Diversified banking products and services
   - Established branch and ATM network

2. **Weaknesses**
   - Restricted variety of some products, in division of the retail banking.
   - High operating expenses associated with large fixed assets
   - reliance on interest earnings versus fee income

3. **Opportunities**
   - Scaling of digital and agent banking facilities
   - Rising need for SME and retail financing
   - Greater use of data analytics and fintech collaborations
   - Increasing demand for sustainable and green finance

4. **Threats**
   - Competition from private banks and fintech
   - Regulatory tightening and compliance costs
   - Credit risk exposure and macroeconomic volatility
   - Cybersecurity and technology-related risks

UCB has positioned itself well with regulatory compliance, along with diversified services and an existing network. Although there were many commercial challenges like high CIR and restricted retail product offering, there are many space for growth in digital, SME lending and sustainable banking. Balancing competitive pressures, regulatory forces and the risks posed by technology

2.7.3 Competitive Position of UCB: Advantages and Weaknesses

A company's competitive position is determined mainly by its advantages and weakness. UCB enjoys some industry-specific advantages as well as some advantages that cannot easily be imitate these are UCB's sustainable competitive advantages.

Industry-specific Strengths: These are usually industry-specific advantages that all banks enjoy. These advantages can be replicated by competitors over time

- Digital banking platforms and mobile services
- SME and retail banking expansion strategies
- Standardized credit risk assessment frameworks

Company-specific Strengths: These are sustainable competitive advantages that only UCB enjoys. It's difficult or costly for competitors to imitate these advantages.

- Strong corporate governance and risk management culture
- Balanced participative leadership structure
- Long-standing reputation and customer trust
- Integrated credit risk management practices aligned with regulatory standards

Competitive positioning also depends on how well can a company deal with its weaknesses. There are usually two type of weakness a company have.

Industry-specific Weaknesses: These are the weakness entire banking industry faces, Different bank may face this differently or have common or unique solution to this.

- Intensive competition within banking industry and market saturation.
- High NPL (Non-Performing Loans) and Asset quality pressure.
- Macroeconomic and financial instability factors.
- Provision burden face by the banks
- Regulatory cleanup by Bangladesh bank

Company-specific Weaknesses: These might be some weakness that only UCB faces. Company must have proper solution in order to remain competitive in the industry.

- Past governance and loan management issues
- Technology and service delivery limitations
- High NPL and its impact of provisioning
- Weak operational and strategic structure

2.8 Summary and Conclusions

UCB unlike any other banks have all core functional areas and all of them have their own unique strength and weaknesses. From experiencing and analyzing the functional areas of UCB, these are the notable strength of UCB:

- As a bank, almost everyone eligible is UCB's potential clients and UCB has a huge client pool but UCB has a huge portfolio of corporate clients, which is one of the leading profit generators of the bank.
- Extensive and vast distribution network created with 414 touch point, 232 branch, 182 sub-branch, 714 ATM and among them 115 upgraded to CRM.
- Strong governance, skillful management and tone from the top participative management structure make UCB unique from all other bank in the intense banking industry of Bangladesh.
- Management capable to solve any problem at ease, such as generating 1300 crore BDT in 2025 in order to maintain the regulatory requirement after facing huge losses sue to loan defaults.
- Simple yet structured Finance and Accounting practices as well as timed Financial and annual reports publication in order to be transparent as much as possible with the client and maintain trust.
- Modern and digital operating systems and software that not only aligns with regulatory requirements but also keep everything under one umbrella and support both employees and clients.

Although the banking industry of Bangladesh is very competitive, these strengths enable UCB to compete in a high-rivalry industry and still remain financially stable with stakeholders 'confidence.

Every coin has two side, similarly UCB also have some weakness they should give some attention. After analyzing the functional areas, the following are some of the weaknesses worth mentioning:

- Poor operational and strategic planning and its execution, these are the outcome of internal issues and miscommunications.
- Use of outdated technology while having opportunity and ability to upgrade and integrate to the latest technology.
- Deterioration of loan and asset portfolio dure to huge portion of loan default, increasing number of non-performing loans (NPLs) and weak corporate clients.
- Poor communication within and across divisions, specially, complementary division such as CRM and Business.
- Poor presence among youth and heavy emphasize on traditional marketing efforts no modernization or digital adaptation.

- Heavy paper dependency, no central database within divisions and so on functional area-specific internal problems which delay decisions making and therefore actionability.

These are notable yet solvable weaknesses that need some attention right now before it becomes unsolvable and occur huge losses.

2.9 Recommendations

To conclude, after critically analyzing the functional areas and the organization, United Commercial Bank Plc (UCB) as a whole, a few recommendations are proposed in order to improve its overall condition and improve long-term competitiveness

- UCB should try to improve internal organizational issues, such as developing and implementing a strong and structured operational and strategic plan
- Technology should be integrated and adequate training must be provided to their employee for better technology adaption
- Try to improve from past issues such as governance issue and poor loan managements, and try not to repeat this in the future.
- Strategically increase deposits to mitigate the bad effect of provisioning and increase profitability.
- Try to recover as much as possible from NPLs and diversify its existing loan portfolio with a view to not repeating same mistakes again.
- Improve different internal functional and division-specific issues such as, improve cross division communication, built a central MIS data repository and so on.
- UCB should expand its marketing efforts. Particularly among youths, by hosting various case competition, campus ambassadorship or knowledge sharing session.
- UCB must focus on its profitability while bringing customers' confidence on the bank for future.

After going through all the functional areas of UCB along with the background and overview of the company, these are the recommendation which may solve existing problems or improve different functional areas of UCB. UCB has already started to work on many areas such as mitigating NPLs or restructuring, these are my personal views to improve different key areas.

Chapter 3

The Project: Industry-Benchmarked Credit Rating Framework Strengthening Lending Decisions

3.1 Introduction

The primary objective of the bank is to act as an intermediary that mobilizes funds by taking access funds from people who have more than enough money (surplus unit) as deposits and giving it to the people who need them (deficient unit) as loans. In the process bank gives away interest to depositors and take interest from the borrower, the difference between this interest rate is the bank's profit or income. With time bank has spread its operations in different direction, earning income from them as well but to this day deposits and lending is banks primary and one of the most important operations. So, naturally Credit risk management becomes one of the most critical functions of commercial banks, as lending activities constitute the primary source of interest income. However, this lending activities also exposes banks to the most risks in its portfolio, including borrower default, which can adversely affect asset quality, profitability, and capital adequacy. To diversify this risk, banks rely on various structured credit appraisal tools and regulatory guidelines provided by the central bank (For Bangladesh it's Bangladesh Bank) to assess the creditworthiness of borrowers before sanctioning loans.

In Bangladesh, ICRR (Internal Credit Risk Rating) framework provided by BB (Bangladesh Bank) is widely used by commercial banks to evaluate creditworthiness status of the borrowers. This project was aimed to develop a supporting analytical framework, that would complement the existing ICRR system and enhance the quality of credit decision making. Additionally, this project was conducted during the internship period at United Commercial Bank PLC within CRM (Credit Risk Management) corporate division with a specific focus on RMG (Ready-Made Garments) sector.

3.1.1 Background Information and Problem Statement

3.1.1.1 Background

The bank as a financial intermediary that mobilizes funds between surplus and the deficit unit of our society. From the creation of Banks while doing so, the main challenge it faced was not receiving the repayments timely or not receiving at all. It's essential for a bank to maintain the quality of its credits, due to many reasons. BB (Bangladesh Bank) has given a complete guideline to evaluate and approve credit decisions to individuals and companies. Internal Credit Risk Rating (ICRR) is an integrated credit rating system mandated by BB to provide us with a standardized version of borrower level assessment. ICRR is analyzed from on a borrower's repayment ability based on customer's financial information including liquidity, cashflow, profitability, debt profile, market indicators, industry, operational, management capabilities and so on. All banks must use ICRR for its lending decisions expect individual loans, small enterprise, short-term Agri loans, micro credit and lending to Banks, NBFIs and Insurance. ICRR captures the entire industry by dividing it into 4 broader categories considering the size of exposures of banks in these industries.

A. Industry. (Manufacturing)
B. Trade and Commerce.
C. Agro Based and Agro Processing.
D. Service

Later divided the Industry and Service sector into multiple sub categories.

A. Industry

1. Ready-Made Garments (RMG)
2. Textile (Spinning, Knitting, Weaving)
3. Food and Allied
4. Pharmaceuticals
5. Chemical
6. Fertilizer
7. Cement
8. Ceramic
9. Ship Building
10. Ship Breaking
11. Jute Mills
12. Steel Engineering
13. Power and Ga
14. Other Industry

D. Service

1. Housing and Construction
2. Hospitals and Clinics
3. Telecommunication
4. Other Service

ICRR framework can be applied doe all these 20 sub categories, where 18 are specific and 2 are general (Other industry and Other Service).

In ICRR framework a borrower is assessed from two perspectives, one is quantitative assessment which mainly focuses on the numbers and ratios and the other is qualitative

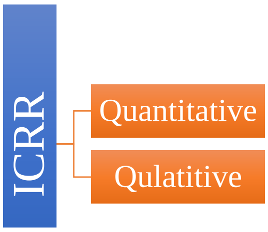


Figure 33 :ICRR Indicators

assessment which focuses on subjective judgement of the credit analyst. ICRR is executed through creditable data of audited finance and CIB report. Through this process the bank tries to assess the credit worthiness of its borrower and maintain a good quality of loan portfolio. The ICRR framework incorporates both quantitative and qualitative factors to generate a composite risk score that assists banks in making informed lending decisions.

For this project, we are going to focus only on quantitative part of ICRR. Quantitative part has six indicators which are again inbreeded with multiple relevant ratios. These ratios have different weight within the indicators as well as the indicators alone have different weight on the overall rating.

Quantitative Indicators		Weights
1. Leverage (10%)	a. Debt to Tangible Net Worth (DTN)	7
	b. Debt to Total Asset (DTA)	3
2. Liquidity (10%)	a. Current Ratio (CR)	7
	b. Cash Ratio	3
3. Profitability (10%)	a. Net Profit Margin (NPM)	5
	b. Return on Assets (ROA)	3
	c. Operating Profit to Operating Assets (OPOA)	2
4. Coverage (15%)	a. Interest Coverage (IC)	3
	b. Debt Service Coverage Ratio (DSCR)	5
	c. Operating Cash Flow to Financial Debt Ratio (OCDR)	4
	d. Cashflow Coverage Ratio (CCR)	3
5. Operational Efficiency (10%)	a. Stock Turnover Ratio (STD)	4
	b. Trade Debtor Collection Days (TDCD)	3
	c. Asset Turnover (AT)	3
6. Earning Quality (5%)	a. Operating Cashflow to Sales (OCFS)	3
	c. Cashflow based Accrual Ratio (CFAR)	2

Table 6: ICRR Indicators and Ratios

In ICRR framework 60% scores are calculated by quantitative indicator and the rest 40% by qualitative indicators. Afterwards integrating both of the quantitative and qualitative scores, an aggregate score along with a report is generated. ICRR consist of a 4-notch rating derived from the aggregate score. The rating and scores have changed many times because of the changing nature of our economy and market risks. Current rating and scored are mentioned below:

Rating	Aggregate Score
Excellent	≥75%
Good	≥65% - 75%
Marginal	≥55% - 65%
Unacceptable	<55%

Table 7: ICRR Rating and its Corresponding Score

The different observation and features of these rating categories are given below:

A. **Excellent:** Aggregate score of 75 or greater in ICRR. Strong repayment capacity of the borrower evident by the high liquidity, low leverage, strong earnings, and adequate cash flow. Borrower has well established strong market share. Very good management skill and. expertise.
B. **Good:** Aggregate score of 65 or greater but less than 75. These borrowers are not as strong as "Excellent" borrowers, but still demonstrate consistent earnings, adequate cash flow and have a good track record. Borrower is well established and has strong market share. Very good management skill and expertise.
C. **Marginal:** Aggregate score of 55% or greater but less than 65% and the quantitative score of at least 30%. The management must take closer look at marginal clients and correct the regulatory or functional error or if left uncorrected, these weaknesses will result in a deterioration of the financial condition of the company.
D. **Unacceptable:** Total score is less than 55%. The company who falls in this category has weaker financial condition and no capacity to repay. More than one management problems exist within the company. Existing loan facilities might get downgraded if sustained deterioration in financial condition is noticed such as, consecutive losses, negative net worth or excessive leverage.

Limitations of Internal Credit Risk Rating (ICRR)

Internal Credit Risk Rating (ICRR) is the key tool for determining borrower level credit risk assessment. Although ICRR tried to capture almost all sectors of credit risks, but there are still some limitations and spaces for improvement.

ICRR was introduced in 2018 and it became mandatory in 2019, meaning it is almost a 6 years old assessment tool. But throughout these years there was no improvement of the original framework rather just the rating range changed based on the economic condition. The existing ICRR also lack industry-level depth and competitiveness. Only 20 categories are not enough to represent the entire industry, where each industry has different characteristics. There is no segregation based on the size or the capacity of the company. Furthermore, there is no scope for peer-peer comparison to get a clear picture of the particular industry at that economic condition. Additionally, there is no financial performance trends over time, which may indicate future stress or decline. Lastly, most corporate borrowers in Bangladesh are private limited companies, limiting the availability of market-based indicators and making financial-statement-based analysis even more critical. The banks need to depend on the financial data provided by the company itself. As a result, the bank often overestimates or underestimates the creditworthiness of the borrower, especially for volatile industries

3.1.1.2 Problem Statement

The banking sector in Bangladesh is heavily dependent on corporate borrower, specially because of export-oriented industries such as the Ready-Made Garments (RMG). Given the scale of the sector, contribution to foreign earnings, and exposure to global market, accurate credit-risk assessment is essential.

In spite of the guidelines and borrower level assessment provided by BB, the above limitations of ICRR unveils a huge gap in the existing credit assessment system. Therefore, his project aims to develop an Industry Benchmark Index derived from aggregate ICRR data across and within industry. This benchmark will offer a new and additional analytical layer to support the core ICRR evaluation and provide more data-informed and consistent credit decisions particularly focusing on comparability, trends and most recent condition of the industry at a given time within the RMG sector

3.1.2 Research Question(s) and Objective(s)

3.1.2.1 Research Question(s)

1. How can an industry benchmarking framework be designed and integrated into the existing ICRR process?
2. How can Industry Benchmark Index provide an additional layer of risk protection?
3. How much accuracy and consistency will the framework provide compared to the existing ICRR ratings?

3.1.2.2 Objective(s)

The overall objective of this project is to develop a supporting framework that complement the already existing ICRR framework and enhance its effectiveness.

The specific objectives are to:

1. Analyze the existing ICRR framework and figure out its limitations.
2. Segment the RMG sector into meaningful categories and sub-categories based on the characteristics and scale of its operation.
3. Design a framework using ratios and trends into the existing ICRR process that will support and provide a more accurate and data-driven credit risk assessment.
4. Develop an excel-based tool incorporating the framework in order to support lending decisions complementing the existing ICRR process.

3.1.3 Significance

From the creation, banks have always faced the challenge of credit default or not repaying on time. Despite the continuous efforts by BB, the current ICRR process broadly generalizes the industries without providing adequate industry variation. As a result, it’s difficult to determine a company’s absolute and relative performance within industry in current economic conditions. This project will be significant in many aspects but two mentionable reasons are:

Banks: The proposed framework will provide an additional layer of risk complementing the existing ICRR framework. The framework can provide better credit decisions and improve risk management for banks.

Research or Academia: This project can contribute to applied research in credit risk management by demonstrating how we can enhance our regulatory tools (ICRR). Simply by figuring out its limitation and improving it through the analytical framework.

United Commercial Bank PLC: The framework was developed using customer data from UCB's current RMG portfolio, making it directly applicable for UCB operational relevance within RMG unit.

Additionally, an industry-based benchmark can bridge this gap by establishing an index, a refer point for each ICRR ratio. Such a benchmark will provide a solid comparison by integrating traditional risk assessment with the current industry situation. The proposed framework can enhance the accuracy, consistency and predictability of existing ICRR framework and hold a strategic significance. It can strengthen the bank's existing credit risk management capabilities, support more data driven and transparent lending decisions and ultimately lead to holding a better loan portfolio and reduce credit losses.

3.1.4 Scope of the Study

The scope of this project is limited to, corporate credit risk assessment practices for banks in Bangladesh including UCB that was regulated by BB, application of the ICRR framework as described and guided through circular mandated by BB, RMG and Textile sector, including related sub-sectors and lastly analysis using ratios based on audited financial statements provided by the borrower and of acceptable RMG borrowers only within UCB's portfolio. Contrary, the project does not cover individual, retail or small-medium enterprise (SME) credit risk assessment or any other sector from the existing ICRR Framework, but that index can be made by inputting relevant data. Credit assessment of short-term Agri loans, micro credit and lending to banks, NBFIs and insurance, non-performing loan (NPL) recovery mechanisms, market-based credit risk models or any external credit rating agency methodologies.

3.2 Literature Review

Bank's primary source of income is the deposits from depositors and the primary channel of distribution is the loan it gives away to the borrowers. Banks generate profit through these elements. But the process is not always smooth as it sounds. The bank must pay a certain amount of interest to the depositors and get a certain amount from the lenders on time. If it fails to do so the profit may diminish as well as incur heavy losses. The financial performance of commercial banks is intrinsically linked to how well they manage various risks, particularly credit risk and liquidity risk. According to Accornero et al., (2018) credit risk is defined as when the borrowers cannot pay their debts on time. According to research by Asian Commercial Banks during 2011 to 2017, credit risk has a significant negative impact on banks profitability. (Abbas et al.,2019). It's essential for a bank to maintain its profitability, as public confidence may also depend on this, therefore credit risk still remains one of the major challenges a bank faces from the very first creation to the end. There is a significant and negative correlation between ROA and banks credit risk, according to Kirui (2014), later

Boudriga et al., (2010) research further supports the claim of an existing correlation between NPLs and ROA.

According to Accornero et al., (2018) credit risk is defined as when the borrowers cannot pay their debts on time, which remains one of the most difficult challenges for banks world-wide. Recent studies suggests that high credit risk, closely followed by non-performing loan (NPL) ratios, has a significant negative impact on bank profitability. For example, a quantile regression study of a major global bank found that, there is a significant negative relationship between credit risk and profitability, particularly for banks with weaker performance levels because of their weaker ability to absorb losses and high provisioning costs. (Mwanjilinji et al., 2025) Furthermore, studies also show similar patterns, where high levels of NPLs and poor credit risk practices degrade bank's asset and equity, threatening its long-term financial stability. (MDPI,2023)

Credit risk directly affects bank's asset quality and its earnings, but liquidity risk indirectly affect asset quality and earning by making it difficult to meet short-term obligations. Liquidity risk is when an asset is difficult to liquidate or in other words can be sold at its actual value. Liquidity risk plays a noteworthy role in determining bank stability and performance. Research analyzing UK commercial banks reports that, the relationship between liquidity risk and profitability is complex and often takes toll on internal bank characteristics and the macroeconomic environment of the country. (Journal of Risk and Financial Management, 2024) Haris et al. (2024) found that, during the pandemic period, liquidity risk, and credit risk, significantly influenced profitability measures such as ROA and ROE among Pakistani banks. Liquidity risk was found to have a positive relationship with profitability because of repricing and balance sheet adjustments amidst market disruption, while credit risk naturally followed and maintained a consistent negative effect on profitability

Many studies demonstrated that, how credit risk has a correlation with other risk factors, such as market risk, liquidity risk and so on. Research indicates that market risk, credit risk, and governance can jointly influence banking performance for the better or worst. (MDPI,2023) For example, a study on commercial bank showed that, risk prevention, environmental risk factors, and credit appraisal metrics collectively impact performance and outcomes, suggesting that credit risk along with other risk factor should be taken account on together.

Predictive analysis and data driven models have been highlighted in recent years with the sole goal of improving credit risk assessment. Predictive analysis includes advanced statistical technique and machine learning (ML) that can increase the precision of credit scoring and risk identification. Traditional finance and human judgement is not enough and these tools are needed (Smith and Rahman, 2024)

This project integrates financial ratio analysis with practical credit risk assessments tailored to local banking systems. This project addresses these gaps by examining United Commercial Bank PLC's recent financial data and a complete analytical framework, thereby adding insights into a company's financial situation and credit worthiness.

3.3 Methodology

This project adopts both applied and descriptive research approach, using quantitative methods and derive ratios from audited financials and integrate them with already existing practical credit risk assessment frameworks. The methodology is provided sequentially below:

The Project Design

Among existing ICRR's 20 sectors, RMG and Textile is chosen as one of the largest sectors in Bangladesh with significant contribution in the banking sector and economy. Choosing sector is the most important step to go further with the project design. The RMG and Textile related borrowers were classified into four broad categories based on their unique characteristics and market dynamics, which are:

A. Ready-Made Garments (RMG)

B. Textile, Dyeing and Printing (TDP)

C. Accessories

D. Spinning

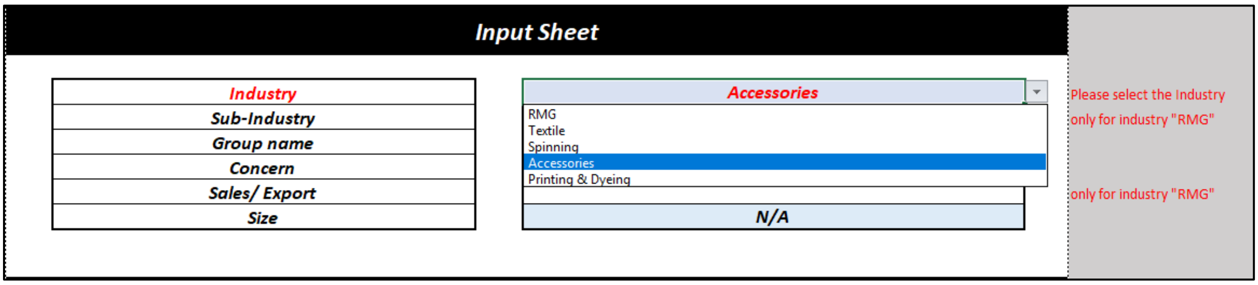


Figure 34:Sector Classification of Index

Due to RMG being the largest category and having the most complex characteristics, it was further segregated into smaller subcategories. Based on what they produce, (I) Composite, which consist of companies that have multiple product lines and (II) RMG, which only have single product line. On the other hand, based on export figured, (I) Very Large, the companies with export more than 100 million USD, (II) Large, the companies with export figure between 50-100 million USD, (III)Medium, the companies with export figure between 20-50 million USD and lastly, (IV) Small, the companies with export figure lower than 20 million USD.

Data Source

As most of the UCB's customer is private limited company, so it is difficult to get publicly available data. Keeping that in mind both primary and secondary data were used in term of:

- Audited financial statements of acceptable borrowers from UCB's corporate portfolio
- ICRR-generated financial ratios
- Internal credit risk assessment observations and records (non-confidential)

Data Collection

Information and ratios were derived from last **3 years** (2024,2023,2022) ICRR and audited financials of **90 companies** to create the database of the project. Then the database was segregated into 4 broader categories (RMG, Spinning, Accessories, Textile, Dyeing and Print). RMG was further divided in 3 sub categories (Small, Medium, Large and Very Large) with additional information of another two categories (Composite and RMG) if needed.

Data Processing and Sampling

Data was now cleaned by removing outliers and missing values based on subjective judgement using different data cleansing methods such as sorting and filtering and so on to make the index more consistent and accurate. Moreover, Winsorization, a statistical method was used to reduce the impact of extreme outliers by taking 5th percentile as the minimum value and 95th percentile as the maximum value using Excel's Min- Max formula. This method capped the value of outliers to a reasonable value based on the dataset.

Operational Efficiency						Earning Quality			
Stock Turnover Days (STD)	Winsorized STD	Trade Debtor Collection Days (TDCD)	Winsorized TDCD	Asset Turnover (AT)	Winsorized AT	Operating Cash Flow to Sales (CFS)	Winsorized CFS	Cashflow based Accrual ratio (CAR)	Winsorized CAR
7	9	0	0	260.91%	230.58%	7.74%	7.74%	-22.00%	-22.00%
24	24	0	0	205.77%	205.77%	7.10%	7.10%	-22.00%	-22.00%
10	10	45	45	157.66%	157.66%	18.66%	15.81%	19.00%	19.00%
173	160	35	35	123.14%	126.34%	-4.63%	-1.92%	58.00%	38.75%
144	144	27	27	170.79%	170.79%	9.53%	9.53%	-18.00%	-18.00%
19	19	52	52	156.11%	156.11%	0.30%	0.30%	16.00%	16.00%
18	18	43	43	139.77%	139.77%	2.14%	2.14%	13.00%	13.00%
36	36	61	56	139.87%	139.87%	13.00%	13.00%	-2.00%	-2.00%
54	54	1	1	128.95%	128.95%	9.55%	9.55%	-14.00%	-14.00%
150	150	33	33	136.38%	136.38%	4.39%	4.39%	18.00%	18.00%
21	21	21	21	188.43%	188.43%	13.47%	13.47%	-10.00%	-10.00%
107	107	15	15	150.65%	150.65%	1.57%	1.57%	23.00%	23.00%

160.35	56.05	230.58%	15.81%	38.75%	95th percentile (winsorized)
8.65	0.00	126.34%	-1.92%	-22.00%	5th percentile (winsorized)
63.58	27.75	163.20%	6.90%	4.92%	Average
62.67	27.34	160.94%	6.89%	3.31%	Winsorized Average

Figure 35:Winsozing Data to Construct Index

Index Construction

Financial ratios derived from ICRR after data cleansing were aggregated to form a composite index. A sector-specific benchmarks were established, consist of 4 broader categories (RMG, Accessories, Spinning, Textile, Printing and Dyeing) and another three sub categories within RMG sector (Small, Medium, Large and Very Large). Finally, the trend analysis was incorporated based on last three year's financial data with higher weights assigned to recent years for better understanding of the company's performance trend.

RMG RMG Small Index																
Leverage		Liquidity		Profitability			Coverage				Operational Efficiency			Earning Quality	
Financial Debt to Tangible Net Worth (DTN)	Financial Debt to Total Assets (DTA)	Current Ratio (CR)	Cash Ratio (Cash)	Net Profit Margin (NPM)	Return on Asset (ROA)	Operating Profit to Operating Assets(OPOA)	Interest Coverage (IC)	Debt Service Coverage Ratio (DSCR)	Operating Cashflow to Debt Ratio (CDR)	Cashflow Coverage Ratio (CCR)	Stock Turnover Days (STD)	Trade Debtor Collection Days (TDCD)	Asset Turnover (AT)	Operating Cash Flow to Sales (CFS)	Cashflow based Accrual ratio (CAR)
0.53	0.25	1.97	0.66	5.18%	8.12%	10.12%	11.22	12.71	0.51	12.78	62.67	27.34	160.94%	6.89%	3.31%

Figure 36:Index Construction RMG_Small

Tool Development

An Excel-based model was developed where ICRR ratios and information about the company in the particular sector or sub sector can be inputted into then compared with the respective sector or sub-sector. In other words, the model compares borrower performance against category benchmarks and the outputs support qualitative judgment in credit decisions

3.4 Limitations of the Project

Despite of carefully planning and designing the project, it is subjected to certain unavoidable limitations. These limitations are:

- Although this project has both primary and secondary data, it’s heavily dependent on secondary data such as financials provided by the customers themselves.
- This project could only take the customer portfolio of UCB focusing on RMG and Textile sector, which definitely to not represent the entire industry, meaning that the comparison might not be accurate or the index might not capture the real scenario of the industry.
- Due to heavy restrictions and compliance issue many essential internal information couldn’t be obtained which may make this framework less accurate.
- Limited duration of internship has also constrained the scope of data collection and in-depth analysis.
- Lack of peer comparison, the higher number can increase the accuracy.
- Insensitivity to firm size differences but not a defined way to divide.
- Equal treatment of structurally diverse firms due to time constraints.
- Limited emphasis on financial trends due to lack of data.

Nevertheless, these limitations do not undermine the overall compatibility of the study, as appropriate analytical and statistical tools and reliable data sources were used. But the framework could be so much better if the relevant data was available and accessible.

3.5 Findings and Analysis

3.5.1 Effectiveness of the Supporting Index

To determine the effectiveness of the framework, two companies were chosen from RMG Industry. Both of the companies were from Large or Very Large sub-category. Due to these data being very sensitive, the name of the companies is replaced with Company 01 and

Company 02. Other financial data and ratios are original and derived from UCB's ICRR directly. The ratios are to be inputted in the framework accordingly

3.5.1.1 Company 01

The audited financial ratios of last three was inputted in the designated box, along with some basis information such as name, group, export and capacity (size automatically derived from export)

Input Sheet

Industry	RMG	Please select the Industry
Sub-Industry	RMG	only for industry "RMG"
Group name	[redacted]	
Concern	[redacted]	
Sales/ Export	13,450,276,784	only for industry "RMG"
Size	Very Large	

Quantitative Indicators

Source	Audited	Audited	Audited	Please select the Source
Ratios	2024	2023	2022	Note: If Financials is not available, use closest year's avaiable data
Leverage				
1. Financial Debt to Tangible Net Worth (DTN)	0.66	0.15	0.36	
2. Financial Debt to Total Assets (DTA)	0.29	0.07	0.11	
Liquidity				
1. Current Ratio (CR)	1.56	1.75	1.38	
2. Cash Ratio (Cash)	0.18	0.19	0.05	
Profitability				
1. Net Profit Margin (NPM) (%)	6.99%	10.38%	6.08%	
2. Return on Assets (ROA) (%)	7.83%	15.31%	7.00%	
3. Operating Profit to Operating Assets (OPOA)	6.72%	9.81%	8.45%	
Coverage				
1. Interest Coverage (IC)	12.85	26.43	8.45	
2. Debt Service Coverage Ratio (DSCR)	8.56	13.05	8.56	
3. Operating Cashflow to Debt Ratio (CDR)	0.12	2.12	-0.83	
4. Cashflow Coverage Ratio (CCR)	2.49	10.07	-9.42	
Operational Efficiency				
1. Stock Turnover Days (STD)	29.00	66.00	199.00	
2. Trade Debtor Collection Days (TDCD)	51.00	56.00	55.00	
3. Asset Turnover (AT) (%)	111.97%	147.50%	115.23%	
Earning Quality				
1. Operating Cash Flow to Sales (CFS) (%)	3.15%	10.72%	-8.17%	
2. Cashflow based accrual ratio (CAR)	0.20	0.10	0.50	

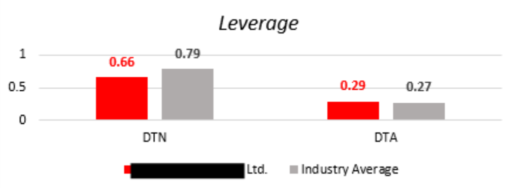
Red: The lower value indicates better performance

Green: The higher value indicates better performance

Figure 37: Company 01 Input Sheet

After inputting the ratios all the comparisons are automatically generated with the comparison of the already created industry index. For demonstration only leverage situation is given here

Leverage Ratios (Lower the Better)													
Group Name	ICRR	Financial Debt to Tangible Net Worth (DTN)					Financial Debt to Total Assets (DTA)					Average (Increase/ Decrease)	Status
	Concern	2022	2023	2024	Status	Score	2022	2023	2024	Status	Score		
	Trends	-	↓	↑		Average	-	↓	↑		Average		
[redacted]	[redacted]	0.36	0.15	0.66	Below	2	0.29	0.07	0.29	Above	2	-5%	Average
Industry Average		0.79					0.27						
Industry Comparison		-16%					6%						



Matrix		
from -50% to -100%	Very Low	4
from -25% to -50%	Low	3
from 25% to -25%	Average	2
from 50% to 25%	High	1
from 100% to 50%	Very High	0

Figure 38: Company 01 Leverage Condition

From the individual comparison, we can see the leverage condition of the designated company is average. While comparing with the industry, its slightly below. We can also see by about 5% below than the industry. We can also see the trend of the leverage, as it was way less the previous year, hinting on an increase in leverage dependency.

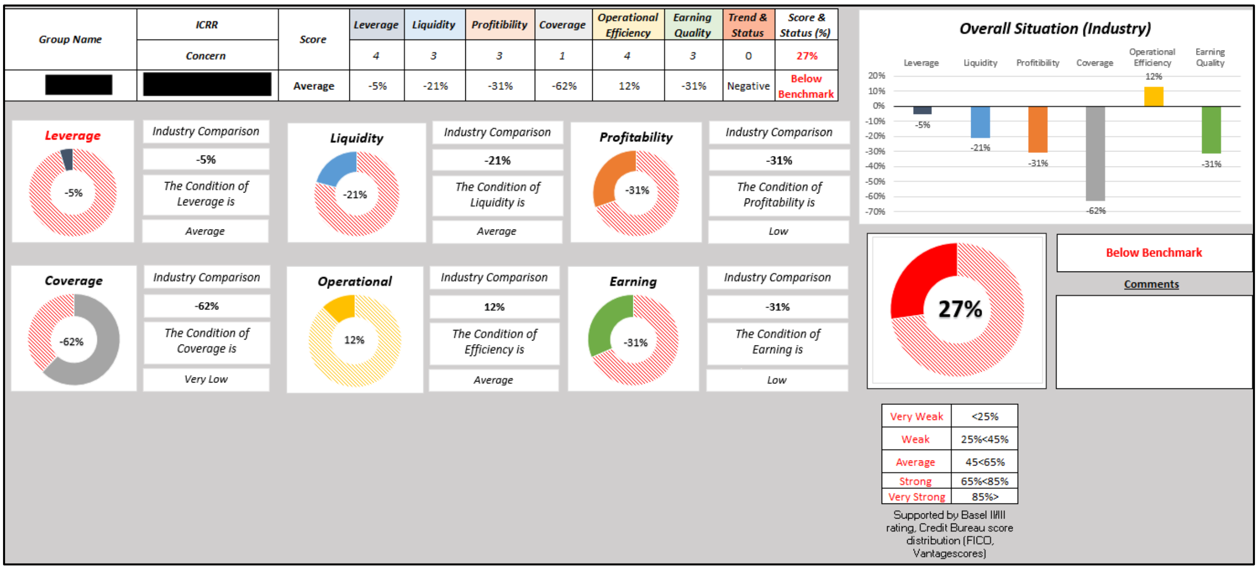


Figure 40: Company 01 Report

This is the report section, where we can see all six indicator all together along with an overall view of the company. We can see the company 01 is currently below industry benchmark. Leverage, Liquidity and Operational Efficiency is showing average compared with the industry, where Profitability and Earning is showing lower than industry and Interest Coverage is showing very low.

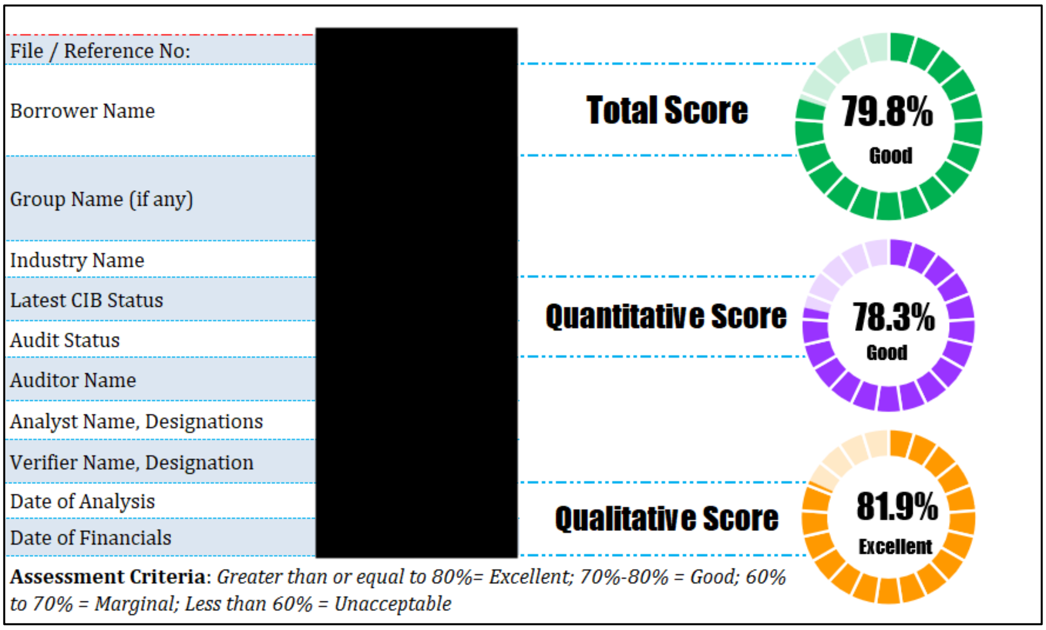


Figure 39: Company 01 ICRR Report

This is the ICRR executive summary about the above company, where clearly, we see a gap. This report is made from emphasizing on current performance and all the ratios are not taken consider into. From this report it’s not possible to see the real inside situation of the company from other perfects. We can also not see the current situation of the industry.

Credit Analyst's Insight on Company 01

The above mention company had some pending proposals of line of credit and term loan. SO, for approval this was supposed to be presented on the Board. The following are the insight of the board regarding the following company:

- Due to expansion the Company 01 is incurring heavy costs, that's why the company could not keep significant amount as security for interest coverage
- Additionally, the condition of the RMG sector as a whole is struggling that's why the earning is declining for last 6-12 months

These insights give proper explanation of the company's current condition and this could be easily seen with the help of the developed framework. Performing average as the industry is not bad even if the overall industry is doing good or bad because in a bad economy doing average can be conceded as good.

3.5.1.2 Company 02

Similarly, the ratios of company two is inputted here.

Input Sheet

Industry	RMG	Please select the Industry
Sub-Industry	RMG	only for industry "RMG"
Group name	[redacted]	
Concern	[redacted]	
Sales/ Export	14,833,106,483	only for industry "RMG"
Size	Very Large	

Quantitative Indicators

Source	Audited	Audited	Audited
Ratios	2024	2023	2022
Leverage			
1. Financial Debt to Tangible Net Worth (DTN)	0.95	0.95	0.95
2. Financial Debt to Total Assets (DTA)	0.36	0.36	0.36
Liquidity			
1. Current Ratio (CR)	1.04	1.04	1.04
2. Cash Ratio (Cash)	0.01	0.01	0.01
Profitability			
1. Net Profit Margin (NPM) (%)	5.28%	5.28%	5.28%
2. Return on Assets (ROA) (%)	5.55%	5.55%	5.55%
3. Operating Profit to Operating Assets (OPOA)	12.81%	12.81%	12.81%
Coverage			
1. Interest Coverage (IC)	2.93	2.93	2.93
2. Debt Service Coverage Ratio (DSCR)	1.89	1.89	1.89
3. Operating Cashflow to Debt Ratio (CDR)	0.10	0.10	0.10
4. Cashflow Coverage Ratio (CCR)	0.64	0.64	0.64
Operational Efficiency			
1. Stock Turnover Days (STD)	111.00	111.00	111.00
2. Trade Debtor Collection Days (TDCD)	88.00	88.00	88.00
3. Asset Turnover (AT) (%)	105.11%	105.11%	105.11%
Earning Quality			
1. Operating Cash Flow to Sales (CFS) (%)	3.54%	3.54%	3.54%
2. Cashflow based accrual ratio (CAR)	0.25	0.25	0.25

Please select the Source

Note: If Financials is not available, use closest year's avaiable data

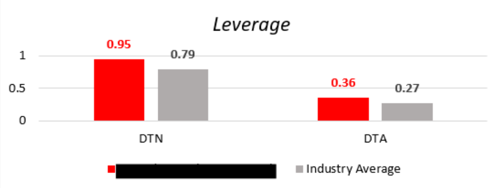
Red: The lower value indicates better performance

Green: The higher value indicates better performance

Figure 41: Company 02 Input Sheet

This is the leverage condition.

Leverage Ratios (Lower the Better)													
Group Name	ICRR	Financial Debt to Tangible Net Worth (DTN)					Financial Debt to Total Assets (DTA)					Average (Increase/ Decrease)	Status
	Concern	2022	2023	2024	Status	Score	2022	2023	2024	Status	Score		
	Trends	-	–	–		Average	-	–	–		High		
[redacted]	[redacted]	0.95	0.95	0.95	Above	2	0.36	0.36	0.36	Above	1	26%	High
Industry Average		0.79					0.27						
Industry Comparison		21%					32%						



Matrix		
from -50% to -100%	Very Low	4
from -25% to -50%	Low	3
from 25% to -25%	Average	2
from 50% to 25%	High	1
from 100% to 50%	Very High	0

Figure 42: Company 02 Leverage Condition

We can see the company is highly levered compared to its industry.

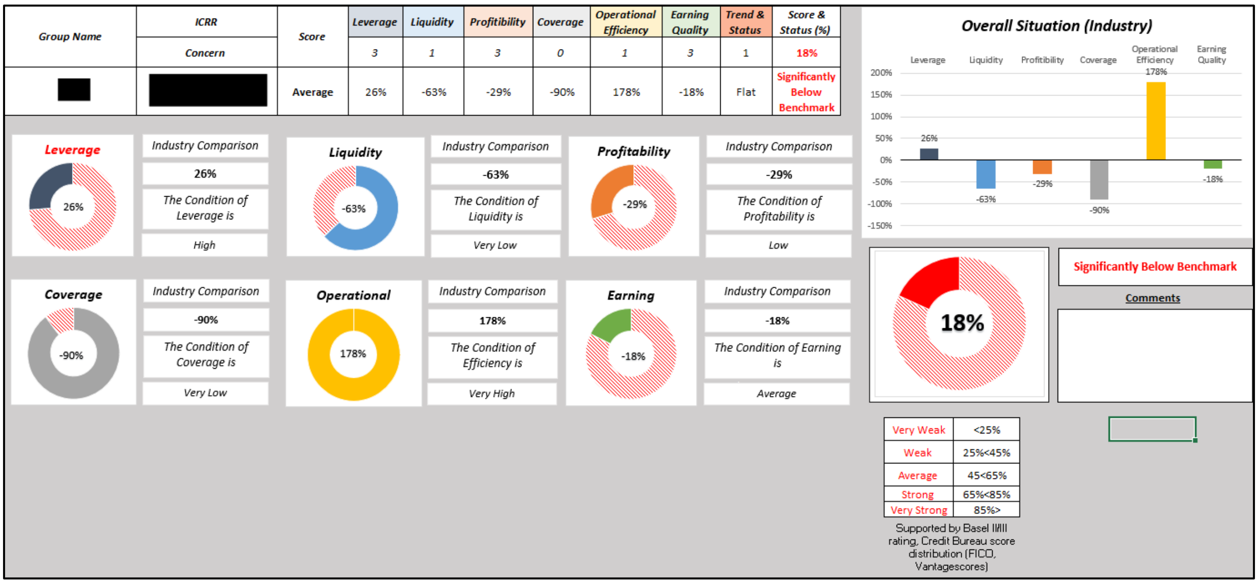


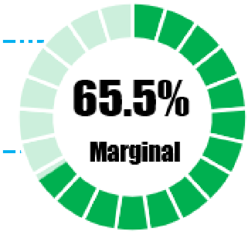
Figure 43: Company 02 Report

We can see the company is significantly below its industry index. Only doing good in operational efficiency meaning its productive. But the Company is not doing good in term of other factors. Its liquidity and Interest Coverage is very low. Condition of Leverage is high and Profitability is low. But its's earning is average.

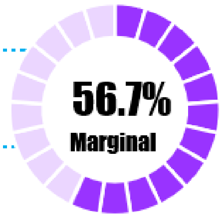
If we look at its ICRR report

File / Reference No:	[redacted]
Borrower Name	
Group Name (if any)	
Industry Name	
Latest CIB Status	
Audit Status	
Auditor Name	
Analyst Name, Designations	
Verifier Name, Designation	
Date of Analysis	
Date of Financials	

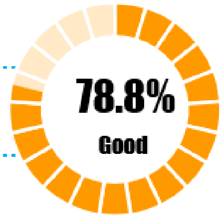
Total Score



Quantitative Score



Qualitative Score



Assessment Criteria: *Greater than or equal to 80%= Excellent; 70%-80% = Good; 60% to 70% = Marginal; Less than 60% = Unacceptable*

We can see they rating is not good as well but it’s not possible to pin point the reason from this. But if we look at the developed framework’s report it can easily told, where the bottleneck is.

This was also presented in front of the credit board, and the following are the observations:

Credit Analyst’s Insight on Company 02

- Company 02 has taken a significant amount of short-term loan within last 1 year.
- Company 02 have been struggling to repay its loans
- Already multiple times loans have been rescheduled from Company 02

This observation also supports our finding, where we can easily take a look and figure where we should focus on.

3.6 Recommendation

From the analysis we find that the above framework is adequate to support he existing ICRR and can make better credit decisions. It will not completely remove the gap but mitigate it and provide an extra layer of risk management. Keep this in mind the following are the recommendations:

- Banks in Bangladesh should add sector-specific analysis along with existing ICRR.

- Benchmarking index of peers should be integrated into internal credit review processes.
- Recent financial trends should get more importance
- The above index can be extended by constructing sector specific index and evaluate beyond RMG.
- Future research can incorporate stress testing and scenario analysis for better results.

3.7 Conclusions

This project demonstrates that ICRR is a tool developed and mandate by Bangladesh Bank in order to help banks take their credit decision and regulate the entire process. But it shows some limitations and over the year after its announcements in the 2017 circular, Bangladesh Bank has not change it. The only change we gone through is scoring and rating change based on the economic situation. So ICRR standalone can be insufficient to see the whole picture and make credit decisions accordingly. The index was developed to support ICRR and enhance analytical dept of the credit decisions in order to decrease the most challenging problem all banks face, the credit default issue. This Framework is practical, replicable and compatible for existing banking process, this makes it a valuable addition to the existing credit management practices.

References

1 Sharif, M. J., Rahaman, M. A., & Moniruzzaman, M. (2024). The impact of credit risk and bank-specific variables on financial performance of listed commercial banks in Bangladesh. *International Journal of Research and Innovation in Social Science, 8*(8), 3826–3839. https://doi.org/10.47772/IJRISS.2024.8080285

2 Sadat, A. (2025). A study on credit rating factors of readymade garments in Bangladesh. *International Journal of Economics, Finance and Management Sciences, 13*(5), 297–310. https://doi.org/10.11648/j.ijefm.20251305.16

3 Uddin, M. K., Hossain, H. M. M., & Rahman, M. (2023). Effect of credit risk management on the financial performance of banking sector of Bangladesh: A study on generation-based selected listed commercial banks. *European Journal of Economic and Financial Research, 7*(3). https://doi.org/10.46827/ejefr.v7i3.1527

4 Ahamed, F. (2021). Determinants of liquidity risk in commercial banks in Bangladesh. *European Journal of Business Management and Research, 6*(1), 164–169. https://doi.org/10.24018/ejbmr.2021.6.1.729

5 Mwanjilinji, E. E., Shakiru, T. H., & Huang, F.-M. (2025). The role of credit risk in shaping the profitability of the banking sector in the world's largest economies: Evidence from panel quantile regression. *SN Business & Economics.* https://doi.org/10.1007/s43546-025-00964-y

6 Predictive analytics in credit risk management for banks: A comprehensive review. (2024). *GSC Advanced Research and Reviews, 18*(2). https://doi.org/10.30574/gscarr.2024.18.2.0077

7 The influence of liquidity risk on financial performance: Evidence from UK banks. (2024). *Journal of Risk and Financial Management, 17*(12), 580. https://doi.org/10.3390/jrfm17120580

8 Haris, M., Yao, H., & Fatima, H. (2024). The impact of liquidity risk and credit risk on bank profitability during COVID-19. *PLOS ONE, 19*(9), e0308356. https://doi.org/10.1371/journal.pone.0308356

9 Rating the impact of risks in banking on performance: Utilizing the CAMELS framework. (2023). *Risks, 13*(5), 85. https://doi.org/10.3390/risks13050085

10 Credit risk management and bank performance: A critical literature review. (2018). *IOSR Journal of Economics and Finance, 9*(6), 09–13. https://www.iosrjournals.org/iosr-jef/papers/Vol9-Issue6/Version-4/B0906040913.pdf

11 Examining determinants of credit risk and performance measures in banking. (2022). *Journal of Risk and Financial Management, 16*(4), 235. https://doi.org/10.3390/jrfm16040235

12 United Commercial Bank PLC. (2025). *Products and services.* https://www.ucb.com.bd/banking

13 United Commercial Bank PLC. (2025). *Personal loan.* https://www.ucb.com.bd/banking/retail-banking/personal-loan

14 United Commercial Bank PLC. (2025). *Corporate banking loans.* https://www.ucb.com.bd/banking/corporate-banking/

15 United Commercial Bank PLC. (2025). *Agent banking products.* https://www.ucb.com.bd/banking/agent-banking/products/
16 United Commercial Bank PLC. (2025). *Deposit interest rates.* https://www.ucb.com.bd/rates/interest-rates/
17 Kamal, M., & Parvin, M. (2020). Marketing strategies practiced by commercial banks in Bangladesh. *Academia.edu.* https://www.academia.edu
18 The Business Standard. (2023). United Commercial Bank onboards Blackboard Strategies as its communication partner. https://tbsnews.net/economy/corporates/united-commercial-bank-onboards-blackboard-strategies-its-communication-partner
19 United Commercial Bank PLC. (2025). *Profile and products.* https://www.ucb.com.bd/

Appendix

Appendix 01: Initial Project Proposal

Background Information

A bank is a financial intermediary that mobilizes funds between surplus and the deficit unit of our society. From the creation of Banks while doing so, the main challenge it faced was not receiving the repayments timely or not receiving at all. It's essential for a bank to maintain the quality of its credits, due to many reasons. BB (Bangladesh Bank) has given a complete guideline to evaluate and approve credit decisions to individuals and companies. Internal Credit Risk Rating (ICRR) is an integrated credit rating system mandated by BB to provide us with a standardized version of borrower level assessment. ICRR captures the entire industry by dividing into 20 broad categories, where 18 are specific and 2 are general. A borrower is assessed from two perspectives, one is quantitative assessment which mainly focuses on the numbers and ratios and the other is qualitative assessment which focuses on subjective judgement of the credit analyst. ICRR is executed through creditable data of audited finance and CIB report. Through this process the bank tries to assess the credit worthiness of its borrower and maintain a good quality of loan portfolio.

Problem Statement

In spite of the guidelines and borrower level assessment provided by BB, it lacks industry-level depth and competitiveness. Only 20 categories are not enough to represent the entire industry, where each industry has different characteristics. There is no segregation based on the size of the company, as well as no scope for peer-peer comparison to get a clear picture of the particular industry at that economic condition. As a result, the bank often overestimates or underestimates the creditworthiness of the borrower, especially for volatile industries. To address this gap, this project aims to develop an **Industry Benchmark Index** derived from aggregate ICRR data across and within industry. This benchmark will offer a new additional analytical layer to support the core ICRR evaluation and provide more data-informed and consistent credit decisions.

Research Question(s)

1. How can an industry benchmarking framework be designed and integrated into the existing ICRR process?
2. How can Industry Benchmark Index provide an additional layer of risk protection?
3. How much accuracy and consistency will the framework provide compared to the existing ICRR ratings?

Objective(s)

1. Design a practical framework into the existing ICRR process that will provide a more accurate and data driven credit risk assessment.

2. Introduce an additional layer of risk protection through the proposed framework.
3. Evaluate the accuracy and consistency of the proposed framework in the existing ICRR process.

Preliminary Literature Review

Bank's primary source of income is the deposits from depositors and the primary channel of distribution is the loan it gives away to the borrowers. Banks generate profit through these elements. But the process is not always smooth as it sounds. The bank must pay a certain amount of interest to the depositors and get a certain amount from the lenders on time. If it fails to do so the profit may diminish as well as incur heavy losses. According to Accornero et al., (2018) credit risk is defined as when the borrowers cannot pay their debts on time. According to a research by Asian Commercial Banks during 2011 to 2017, credit risk has a significant negative impact on banks profitability. (Abbas et al.,2019). It's essential for a bank to maintain its profitability, as public confidence may also depend on this, therefore credit risk still remains one of the major challenges a bank faces from the very first creation to the end. There is a significant and negative correlation between ROA and banks credit risk, according to Kirui (2014), later Boudriga et al., (2010) research further supports the claim of an existing corelation between NPLs and ROA.

Preliminary Methodology

- Choose two broad industry categories and divide them into 3 smaller categories based on their size in order to capture a more accurate scenario.
- Collect primary and secondary data from UCB's internal ICRR report, Audited financials from the borrower, relevant circular from BB and academic papers about ratios.
- Derive financial ratios and ICRR data and use statistical tools (mean, median, mode) to construct the industry index
- Compare each borrower's credit score to the index and calculate who is above, below or within the industry average, assign corresponding scores and complete the framework.
- Apply hypothetical shocks and compare historical results of the company to assess the predictive depth of the framework in real life scenarios.
- Recommend thresholds and observations which can be used for evaluating creditworthiness alongside with ICRR score for making better lending decisions.

Significance of the Issue

In today's complex and competitive world, it's difficult to ensure accurate and consistent credit assessment and make better lending decisions. Despite the continuous efforts by BB, the current ICRR process broadly generalizes the industries without providing adequate industry variation. As a result, it's difficult to determine a company's absolute and relative performance within industry in current economic conditions. An industry-based benchmark can bridge this gap by establishing an index, a refer point for each ICRR ratio. Such a benchmark will provide a solid comparison by integrating traditional risk assessment with the current industry situation. The proposed framework can enhance the accuracy, consistency and predictability of existing ICRR framework and hold a strategic significance. It can strengthen the bank’s existing credit risk management capabilities, support more data driven and transparent lending decisions and ultimately lead to holding a better loan portfolio and reduce credit losses.

Tentative Timeline

- Week-05: Project proposal submission
- Week-06: Receive feedback & finalize proposal
- Week07-08: Data collection & industry selection
- Week-09: Benchmark development using statistical tools
- Week-10: Framework validation & policy integration
- Week-11: First draft submission to supervisor & receive feedback
- Week-12: Second draft submission to supervisor and library & receive feedback and similarity Index report
- Week-14: Final report submission to supervisor and library & receive feedback and similarity Index report
- Week-15: Defend / Present

Appendix 02: Raw Financial Data of 5 Years (2020,2021,2022,2023,2024)

Raw Data					
Particulars	***2024***	***2023***	***2022***	***2021***	***2020***
Current Asset	407,498	343,927	299,997	270,583	226,649
Current Liabilities	389,082	317,020	293,311	257,266	197,650
Net Current Asset	18,416	26,907	6,686	13,317	28,999
Long Term Liabilities	336,954	325,148	293,809	270,606	260,590
Total Asset	768,779	685,012	628,077	565,307	493,307
Total Debt	79,786	65,272	103,892	85,804	53,399
Revenue	71,727	51,378	45,533	38,747	38,284
Gross Proft	36,469	29,229	28,523	24,820	20,488
Operating Income	15,078	9,726	11,469	10,184	6,857
Net Income	608	2,685	4,024	3,177	2,857
Non-Interest Expense	21,391	19,503	17,054	14,636	13,631
Net Interest Income	20,857	15,732	14,674	13,396	9,511
Non Interest Income	15,612	19,503	17,054	14,636	13,631
Operating Income	36,469	35,235	31,728	28,032	23,142
Operating Expense	21,391	19,503	17,054	14,636	13,631
# of Employees	5,693	5,749	5,354	5,060	4,900
Cash in Hand	12,443	18,600	9,100	7,498	5,701
Balance with Bangladesh Bank	33,000	17,586	21,838	17,882	19,246
Balance with other Banks and Financial Institutior	19,013	22,455	17,975	20,633	23,063
Money at Call or Short Notice	2,500	0	0	3,200	930
Cash or Cash Equivalent	66,956	58,641	48,913	49,213	48,940
Total Deposits	552,225	511,392	424,683	387,023	352,313
Govt Securities	75,913	70,067	65,222	73,662	57,027
Shareholders' Equity	41,791	42,845	40,957	37,442	35,066
Provision for loan & lossess	12,933	4,548	5,553	4,574	1,909
Net Loan & advances	572,829	505,969	468,605	402,482	351,684
Tier I Capital	36,172	39,149	36,328	34,365	28,848
Tier II Capital	17,687	16,066	16,346	18,392	21,383
Total Capital (I+II)	53,859	55,215	52,674	52,757	50,231
Risk-weighted Assets (RWA)	508,702	438,856	403,261	386,742	336,720
Non-Performing Loans	85,344	27,819	28,078	17,737	8,984

Appendix 03: Financial Ratios

Year	Liquidity & Solvency						Leverage			Market Value				Profitability					Effciency			Others	
	Current Ratio	*Cash Reserve Ratio*	*Statutory Liquidity Ratio*	*Cash to Deposit Ratio*	*Liquid Asset to Total Asset Ratio*	*Loans to Deposit Ratio (LDR/CDR)*	*Debt-Equity Ratio*	*Debt Ratio*	*Equity Multiplier*	*Earning per Share (EPS)*	*Price Earning Ratio*	*Dividend Yield*	*Market Capitalization*	*Gross Profit Marget*	*Operating Margin*	*Net Profit Marget*	*Return on Assets (ROA)*	*Return on Equity (ROE)*	*Efficiency Ratio*	*Cost to Income*	Non-performing Loans Ratio (%)	*Provision for Credit Lossess*	*Capital Adequacy Ratio (CAR)*
2020	1.15	4.30	16.53	0.14	0.21	1.00	11.79	0.11	14.07	2.35	5.01	7.09	17167.04	0.54	0.18	0.07	0.61	8.42	59%	0.59	2.55%	0.005	0.15
2021	1.05	4.29	20.77	0.13	0.22	1.04	12.71	0.15	15.10	2.49	5.14	6.54	19599.47	0.64	0.26	0.08	0.60	8.76	52%	0.52	4.41%	0.011	0.14
2022	1.02	4.16	16.83	0.12	0.18	1.10	12.94	0.17	15.34	2.86	4.55	7.69	18281.08	0.63	0.25	0.09	0.67	10.27	54%	0.54	5.99%	0.012	0.13
2023	1.08	4.15	15.78	0.11	0.19	0.99	13.51	0.10	15.99	1.86	6.99	8.06	18309.20	0.57	0.19	0.05	0.41	6.41	55%	0.55	5.50%	0.009	0.13
2024	1.05	4.48	13.65	0.12	0.19	1.04	15.17	0.10	18.40	0.40	22.92	0.00	14263.46	0.51	0.21	0.01	0.08	1.44	59%	0.59	14.90%	0.023	0.11

Appendix 04: RMG Database (2023-2024)

DB(2023-2024)

								Leverage		Liquidity		Profitability			Coverage				Operational Efficiency			Earning Quality	
Sl	Concern	ICRR Rating (Quantitati…	Graments/ Composi…	Sales	Export-wise (small/medium/large/very larg…	Assets	Enterprise	Financial Debt to Tan… e N…	Financial Debt to Total As… (D…	Current Ratio (C…	Cash Ratio (Ca…	Net Profit Margin (N…	Return on Asset (R…	Operating Profit to Operating Assets(…OA)	Interest Coverage (…	Debt Service Coverage Ra… (DSC…	Operating Cashflow to Debt Ra… (CD…	Cashflow Coverage Ra… (CC…	Stock Turnover Days (ST…	Trade Debtor Collection D… (TD…	Asset Turnover (…	Operating Cash Flow to Sales (CFS…	Cashflow based Accrual ratio (CA…
1	Concern 01	85.51%	G	8,812,677,602	Large	147,406,940	small	0.63	0.20	1.40	0.25	7.39%	12.24%	14.64%	13.40	13.48	0.27	4.79	10	17	165.54%	3.33%	0.2
2	Concern 02	67.40%	G	9,852,939,972	Large	703,361,880	Large	4.45	0.77	1.04	0.12	6.08%	17.47%	21.10%	16.93	17.88	0.27	16.43	20	58	287.41%	7.15%	0.91
3	Concern 03	79.80%	C	13,450,276,784	Very Large	1,637,687,821	Large	0.66	0.29	1.56	0.18	6.99%	7.83%	6.72%	12.85	8.56	0.12	2.49	29	5100.00%	111.97%	3.15%	0.2
4	Concern 04	70.76%	C	15,182,947,791	Very Large	3,232,692,541	Large	1.66	0.59	1.05	0.3	7.75%	11.89%	13.64%	10.44	4.26	0.23	3.31	43	45	153.33%	8.71%	0.45
5	Concern 05	90.54%	C	2,096,553,785	Small	106,562,788	small	0.43	0.3	2.75	1.7	4.03%	10.51%	3.92%	25.92	28.26	0.68	47.89	7	0	260.91%	7.74%	-0.22
6	Concern 06	83.50%	G	162,071,405	Small	24,064,847	small	0.31	0.23	2.95	1.78	1.02%	2.10%	-5.63%	3.65	7.94	0.62	18.43	24	0	205.77%	7.10%	-0.22
7	Concern 07	62.37%	C	362,553,318	Small	35,074,842	small	4.75	0.77	1.01	0.58	2.85%	3.94%	-1.64%	21.04	29.42	0.38	148	8	79	137.95%	21.08%	3.15
8	Concern 08	75.80%	G	3.683,618,160	Very Large	130,945,416	small	0.64	0.38	2.32	0.58	7.72%	15.19%	19.09%	9.71	9.97	-0.02	-0.42	1	47	196.61%	-0.43%	0.38
9	Concern 09	55.33%	G	1,559,883,157	Small	195,055,370	Medium	2.54	0.58	1.13	0.2	4.81%	4.68%	7.09%	5.41	5.35	-0.23	-8.81	109	4	97.42%	-13.83%	1.06
10	Concern 10	70.42%	G (sweater)	2,249,197,235	Small	605,675,297	Large	0.94	0.47	9.98	4.99	6.25%	10.23%	15.33%	3.69	3.01	-0.14	-1.06	69	1	163.63%	-387.00%	0.49
11	Concern 11	93.56%	G	1,751,600,312	Small	90,851,902	small	0.4	0.27	1.5	0.35	8.02%	12.64%	26.77%	10.2	5.51	1.08	9.42	10	45	157.66%	18.66%	0.19
12	Concern 12	70.42%	G	4,086,384,660	Medium	363,456,019	Medium	1.46	0.42	1.31	0.2	5.92%	7.31%	12.23%	3.19	1.8	0.28	1.61	163	27	123.47%	9.48%	-0.05
13	Concern 13	65.39%	G	742,107,688	Small	106,837,758	small	0.32	0.09	1.17	0.23	6.04%	7.43%	10.74%	4.83	5.69	-0.61	-2.49	173	35	123.14%	-4.63%	0.58
14	Concern 14	68.41%	G	1,770,928,998	Small	26,404,766	small	0.37	0.22	2.38	0.02	0.65%	1.11%	10.17%	1.47	1.51	0.75	2.34	144	27	170.79%	9.53%	-0.18
15	Concern 15	88.53%	G	13,541,162,305	Very Large	4,718,663,578	Large	0.03	0.02	0.85	0.25	11.28%	7.96%	11.50%	22.86	25.45	8.49	30.38	20	11	70.60%	18.49%	-0.06
16	Concern 16	68.41%	G	1,029,910,356	Small	1,029,910,356	Large	0.46	0.25	1.76	0.38	4.82%	7.53%	13.06%	2.68	2.16	0.02	0.06	19	52	156.11%	0.30%	0.16
17	Concern 17	78.47%	G	1,123,149,108	Small	209,370,065	Medium	0.18	0.12	2.06	0.58	0.28%	0.52%	5.76%	1.66	2.24	3.28	10.05	56	19	181.66%	21.91%	-0.54
18	Concern 18	98.59%	G	2,636,309,152	Medium	148,521,006	small	0	0.00	3.37	3	7.18%	15.87%	16.79%	52.00	57.75	39288.33	122.3	2	0	221.13%	19.22%	-0.75
19	Concern 19	87.52%	G	1,300,005,558	Small	95,458,071	small	0.22	0.09	1.70	0.49	15.17%	8.65%	5.09%	20.84	13.59	1.3	14.88	30	61	57.03%	21.34%	0.07
20	Concern 20	80.48%	C	3,176,580,954	Medium	668,710,043	Large	0.41	0.26	1.97	0.48	3.99%	5.42%	4.20%	8.58	10.79	0.19	5.13	84	12	139.64%	3.56%	0.01
21	Concern 21	83.50%	C	2,424,295,567	Small	281,803,205	Medium	0.81	0.43	1.78	0.74	9.03%	12.63%	11.28%	36.06	39.93	0.07	7.29	18	43	139.77%	2.14%	0.13
22	Concern 22	67.40%	C	7,728,241,149	Large	33,495,916,066	Large	0.67	0.37	1.22	0.47	5.02%	4.97%	4.55%	17.40	8.15	-0.06	-2	42	50	99.05%	-2.16%	0.18
23	Concern 23	87.52%	G	18,929,448,665	Very Large	3,343,798,533	Large	0.33	0.14	1.32	0.17	7.05%	9.75%	10.97%	15.01	9.83	1.22	12.03	29	67	138.27%	12.51%	0.01
24	Concern 24	93.56%	G	2,383,145,490	Small	367,090,690	Medium	0.21	0.12	1.80	0.5	7.39%	10.33%	11.69%	26.84	31.54	1.56	39.93	36	61	139.87%	13.00%	-0.02
25	Concern 25	68.41%	G			3,343,798,533	Large	0.2	0.10	1.36	0.14	6.57%	4.52%	5.02%	8.20	4.56	0.17	1.04	92	119	68.85%	2.52%	0.22
26	Concern 26	72.43%	G	9,761,906,940	Large	1,710,287,769	Large	0.57	0.29	1.41	0.47	8.13%	7.26%	9.75%	6.84	7.54	-0.19	-3.86	53	87	89.39%	-6.32%	0.23
27	Concern 27	75.45%	G	5,771,213,714	Medium	2,715,266,750	Large	0.15	0.04	0.75	0.07	7.33%	5.79%	6.67%	23.13	33.22	2.33	29.6	251	16	79.01%	11.15%	0.26
28	Concern 28	75.45%	G	349,240,227	Small	43,537,155	small	0.04	0.03	7.77	5.13	6.73%	10.02%	5.46%	46.14	51.06	-5.04	-60.08	6	26	148.88%	-10.91%	0.42
29	Concern 29	88.53%	C	2,855,923,160	Medium	560,818,157	Large	0.07	0.04	1.78	0.48	12.24%	13.47%	14.55%	97.70	110.77	1.69	40.87	1	84	110.05%	5.95%	0.16
30	Concern 30	73.44%	G	5,185,489,485	Medium	747,069,115	Large	0	0.00	2.87	0.32	1.05%	1.49%	1.06%	3.78	6.95	2123151.5	1.59	74	50	142.41%	0.82%	0.05
31	Concern 31	90.54%	G	873,056,733	Small	153,665,096	Medium	0.36	0.19	3.37	1.51	2.57%	3.31%	4.31%	7.85	12.49	0.63	22.4	54	1	128.95%	9.55%	-0.14
32	Concern 32	85.51%	G	521,974,552	Small	83,758,173	small	0.39	0.16	1.45	0.23	8.40%	11.46%	12.50%	10.35	10.35	0.37	4.3	150	33	136.38%	4.39%	0.18
33	Concern 33	85.51%	G	1,449,448,773	Small	3,486,953	SME	1.09	0.31	1.40	0.17	5.85%	11.02%	14.54%	3.96	3.98	0.81	5.61	21	21	188.43%	13.47%	-0.1
34	Concern 34	67.40%	G	509,034,226	Small	50,396,729	small	0.07	0.03	1.49	0.57	5.52%	6.11%	7.89%	8.15	9.38	-7.96	-21.37	15	162	110.62%	-18.77%	1.28
35	Concern 35	73.44%	G				SME	0.3	0.14	1.72	0.65	7.14%	11.37%	13.61%	9.20	9.66	-0.78	6.66	55	70	159.30%	-6.69%	0.61
36	Concern 36	82.49%	G	2,375,870,054	Small	411,786,713	Medium	2.11	0.66	1.09	0.48	6.62%	12.42%	16.20%	6.50	6.5	0.35	8.66	24	23	187.71%	12.38%	-0.43
37	Concern 37	70.42%	G	816,235,906	Small	67,900,433	small	0.8	0.44	2.04	1.17	5.74%	8.87%	13.74%	3.76	4	-0.14	-1.56	40	6	154.51%	-3.84%	0.72
38	Concern 38	72.43%	G	4,522,033,302	Medium	339,757,862	Medium	1.98	0.65	1.31	0.72	4.15%	7.73%	12.94%	2.99	3.16	0.16	2.08	4	11	186.20%	5.52%	-0.22
39	Concern 39	72.43%	G	1,779,480,190	Small	214,447,120	Medium	1.12	0.50	1.39	0.28	4.52%	6.81%	9.53%	5.20	7.46	0.05	1.19	107	15	150.65%	1.57%	0.23
40	Concern 40	72.44%	G	3,944,824,980	Medium	356,161,121	Medium	1.35	0.47	3.64	0.69	6.41%	10.13%	12.29%	9.79	2.77	0.2	1.87	148	25	158.04%	6.04%	0.05
41	Concern 41	70.42%	G	6,216,344,288	Large	852,591,040	Large	0.38	0.17	1.44	0.66	4.41%	10.08%	9.26%	3.41	2.39	0.12	0.25	14	7	228.35%	0.89%	0.38
42	Concern 42	67.40%	G	1,824,499,600	Small	320,906,139	Medium	0.04	0.03	8.43	1.63	1.26%	1.24%	3.47%	2.07	1.17	1.3	0.93	46	73	98.39%	4.30%	-0.02
43	Concern 43	65.39%	C	9,335,225,461	Large	2,199,284,335	Large	0.35	0.18	1.64	0.08	10.12%	9.07%	8.27%	78.72	95.72	-0.57	-77.89	169	82	89.64%	-11.66%	0.5
44	Concern 44	92.55%	G	27,246,781,799	Very Large	3,323,536,495	Large	0.49	0.31	2.07	0.21	9.50%	13.26%	11.79%	69.78	75.31	0.31	43.77	17	45	139.56%	6.79%	0.16
45	Concern 45	90.54%	C	3,931,472,729	Medium	1,032,844,259	Large	0.09	0.06	2.33	0.16	17.47%	10.49%	11.92%	171.26	180.63	3.17	274.23	20	112	60.05%	33.02%	-0.2

Appendix 05: Spinning Database (2023-2024)

Spinning DB (2023-2024)

				Leverage		Liquidity		Profitability			Coverage				Operational Efficiency			Earning Quality	
Sl	Concern	ICRR Rating (Quantitative)	Assets	Financial Debt to Tangible Net Worth (DTN)	Financial Debt to Total Assets (DTA)	Current Ratio (CR)	Cash Ratio (Cash)	Net Profit Margin (NPM)	Return on Asset (ROA)	Operating Profit to Operating Assets(OPOA)	Interest Coverage (IC)	Debt Service Coverage Ratio (DSCR)	Operating Cashflow to Debt Ratio (CDR)	Cashflow Coverage Ratio (CCR)	Stock Turnover Days (STD)	Trade Debtor Collection Days (TDCD)	Asset Turnover (AT)	Operating Cash Flow to Sales (CFS)	Cashflow based Accrual ratio (CAR)
1	Concern 01	65.39%	798,427,246	0.28	0.02	0.70	0.06	2.29%	1.34%	1.59%	28.30	28.3	5.86	237.5	299	75	58.43%	23.52%	-0.64
2	Concern 02	18.11%	446,368,027	4.48	0.5	1	0.01	0.13%	0.03%	3.03%	1.07	1.05	-0.61	-5.97	1432	39	22.93%	-133.41%	2.32
3	Concern 03	93.56%		0.04	0.04	9.5	0.61	4.87%	5.14%	4.24%	7.94	2.8	5.86	4.71	5	8	105.49%	22.58%	-0.19
4	Concern 04	43.26%	4,809,554,022	1.93	0.63	2.2	0.03	8.15%	2.06%	5.76%	1.73	1.63	-0.34	-4.86	493	273	25.26%	-85.83%	0.51
5	Concern 05	53.32%	446,398,784	8.38	0.85	0.86	0.13	4.85%	5.26%	13.68%	1.83	1.8	0.09	0.69	27	65	108.34%	6.87%	0.12
6	Concern 06	30.18%		1.58	0.37	0.76	0.1	5.04%	2.84%	6.63%	1.98	1.37	-0.71	-4.01	258	67	56.42%	-46.89%	0.62
7																			
8																			
9																			
10																			

Appendix 06: Accessories Database (2023-2024)

Accessories DB

				Leverage		Liquidity		Profitability			Coverage				Operational Efficiency			Earning Quality	
Sl	Concern	ICRR Rating (Quantitative)	Assets	Financial Debt to Tangible Net Worth (DTN)	Financial Debt to Total Assets (DTA)	Current Ratio (CR)	Cash Ratio (Cash)	Net Profit Margin (NPM)	Return on Asset (ROA)	Operating Profit to Operating Assets(OPOA)	Interest Coverage (IC)	Debt Service Coverage Ratio (DSCR)	Operating Cashflow to Debt Ratio (CDR)	Cashflow Coverage Ratio (CCR)	Stock Turnover Days (STD)	Trade Debtor Collection Days (TDCD)	Asset Turnover (AT)	Operating Cash Flow to Sales (CFS)	Cashflow based Accrual ratio (CAR)
1	Concern 01	95.57%	157,516,611	0.17	0.13	2.51	0.80	3.95%	8.36%	11.07%	28.43	42.67	1.53	51.39	7	0	211.90%	9.55%	-0.06
2	Concern 02	35.21%	469,186,857	3.85	0.64	0.67	0.07	2.35%	0.63%	3.44%	1.32	1.38	0.06	1.04	124	138	26.69%	14.95%	1.14
3	Concern 03	68.41%	12,016,420	17.82	0.38	1.17	0.81	2.73%	8.71%	14.85%	2.42	0.94	0.77	1.67	1	14	318.79%	9.30%	1.09
4	Concern 04	77.46%	22,419,396	1.49	0.55	1.16	0.19	4.47%	13.66%	22.51%	3.88	4.24	0.15	1.41	11	0	305.45%	2.67%	0.46
5	Concern 05	75.45%	17,507,796	0.01	0.01	10.66	1.83	4.06%	13.69%	23.80%	2.35	2.86	-49.5	-2.54	53	9	337.02%	-7.63%	0.64
6	Concern 06	72.43%		1.05	0.47	1.21	0.66	1.09%	2.64%	10.75%	2.09	3.40	0.29	2.6	48	6	241.73%	5.60%	-0.15
7	Concern 07	85.51%	13,850,542	0.16	0.13	3.3	1.03	9.71%	4.92%	6.60%	3.16	4.24	2.17	12.42	235	180	50.67%	55.77%	-0.26
8	Concern 08	82.49%	1,611,099	1.02	0.43	1.64	1.61	2.46%	4.87%	11.89%	2.36	2.44	0.51	4.41	4	0	198.07%	11.22%	4.56
9	Concern 09	92.55%	249,617,579	0.94	0.47	1.2	0.42	8.19%	10.94%	23.31%	5.61	6.29	0.34	5.86	10	0	133.53%	11.88%	0.33
10	Concern 10	95.57%	9,142,958	0.49	0.32	2.63	1.12	6.82%	12.04%	15.08%	9.67	10.7	0.44	8.66	5	0	176.44%	7.87%	0.09
11	Concern 11	77.46%	578,467,918	2.41	0.42	0.17	0.09	7.13%	8.25%	11.62%	5.22	7.76	0.49	9.05	2	0	115.61%	17.48%	0.06
12	Concern 12	78.47%	6,322,511	1.97	0.63	1.41	0.43	3.82%	7.82%	10.70%	11.24	11.94	0.17	11.16	62	64	204.81%	5.22%	-0.17
13	Concern 13	72.43%	33,850,967	0.26	0.18	1.65	0.09	2.47%	3.97%	6.91%	5.38	10.79	0.25	3.44	2	111	160.53%	2.75%	0.02
14																			
15																			
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Appendix 07: Textile, Printing & Dyeing Database (2023-2024)

Textile , Printing & Dyeing Index

				Leverage		Liquidity		Profitability			Coverage				Operational Efficiency			Earning Quality	
Sl	Concern	ICRR Rating (Quantitative)	Assets	Financial Debt to Tangible Net Worth (DTN)	Financial Debt to Total Assets (DTA)	Current Ratio (CR)	Cash Ratio (Cash)	Net Profit Margin (NPM)	Return on Asset (ROA)	Operating Profit to Operating Assets(OPOA)	Interest Coverage (IC)	Debt Service Coverage Ratio (DSCR)	Operating Cashflow to Debt Ratio (CDR)	Cashflow Coverage Ratio (CCR)	Stock Turnover Days (STD)	Trade Debtor Collection Days (TDCD)	Asset Turnover (AT)	Operating Cash Flow to Sales (CFS)	Cashflow based Accrual ratio (CAR)
1	Concern 01	25.15%	1,588,004,257	-38.33	0.98	0.91	0.07	4.31%	0.42%	2.01%	1.40	0.23	0.02	0.2	2420	89	9.70%	23.46%	-0.01
2	Concern 02	63.38%	2,633,108,916	0.93	0.48	1	0.03	3.03%	2.19%	7.65%	1.6	1.6	0.18	1.47	98	98	72.27%	11.92%	-0.07
3	Concern 03	72.43%	2,636,591	17.42	0.92	1.02	0.73	5.33%	4.77%	7.63%	2.67	2.85	0.19	6.1	36	0	89.45%	19.52%	-0.2
4	Concern 04	68.41%	2,757,548,568	0.64	0.29	1.06	0.09	134.78%	33.94%	3.41%	10.97	5.31	0.36	1.44	509	189	25.18%	41.53%	0.39
5	Concern 05	62.37%	57,495,859	3.2	0.61	1.16	0	3.87%	4.30%	8.88%	2.32	2.38	0.41	6.52	34	138	111.11%	22.41%	0.06
6	Concern 06	60.36%	2,859,694,600	1.11	0.47	1.32	0.02	3.67%	2.42%	6.37%	1.81	1.63	0.21	1.92	70	154	65.96%	15.19%	-0.08
7	Concern 07	52.31%	4,001,368,476	0.89	0.46	1.26	0.02	6.78%	3.39%	5.94%	2.47	1.89	0.03	0.36	145	142	50.00%	2.91%	0.13
8	Concern 08	47.28%	184,611,190	2.35	0.69	1.11	0.01	127.00%	1.35%	8.22%	1.26	1.9	-0.06	-0.57	114	11	106.48%	-3.58%	0.22
9	Concern 09	63.38%	3,677,281,526	2.84	0.66	0.85	0.1	2.64%	3.98%	10.69%	2.04	2.73	0.21	1.75	43	1	150.75%	9.35%	0.2
10	Concern 10	63.38%		0.17	0.11	2.3	0.71	5.11%	3.16%	3.36%	14.29	14.91	-0.43	-17.48	2	269	61.81%	-71.99%	0.12
11	Concern 11	45.27%	397,817,722	3.75	0.56	1.06	0	7.38%	4.40%	4.69%	55.5	65.68	-0.74	-426.22	396	67	59.60%	-69.33%	3.23
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Appendix 08: All Constructed Indexes

Sector	All Index														
	Leverage		Liquidity		Profitability			Coverage				Operational Efficiency			Earning Quality	
Ratios	Financial Debt to Tangible Net Worth (DTN)	Financial Debt to Total Assets (DTA)	Current Ratio (CR)	Cash Ratio (Cash)	Net Profit Margin (NPM)	Return on Asset (ROA)	Operating Profit to Operating Assets(OPOA)	Interest Coverage (IC)	Debt Service Coverage Ratio (DSCR)	Operating Cashflow to Debt Ratio (CDR)	Cashflow Coverage Ratio (CCR)	Stock Turnover Days (STD)	Trade Debtor Collection Days (TDCD)	Asset Turnover (AT)	Operating Cash Flow to Sales (CFS)	Cashflow based Accrual ratio (CAR)
RMG RMG Small Index	0.53	0.25	1.97	0.66	5.18%	8.12%	10.12%	11.22	12.71	0.51	12.78	62.67	27.34	160.94%	6.89%	3.31%
RMG RMG Medium Index	1.26	0.40	1.69	0.42	5.98%	7.71%	11.22%	9.28	9.15	0.67	7.77	143.60	19.86	137.29%	8.00%	0.85%
RMG RMG Large & Very Large Index	0.79	0.27	1.48	0.34	7.69%	11.58%	13.45%	17.84	18.28	1.00	12.49	19.84	41.68	162.70%	5.30%	25.61%
Spinning Index	2.80	0.48	3.06	0.20	5.61%	3.85%	7.37%	3.15	1.87	1.02	-0.99	187.76	97.66	74.94%	-24.95%	27.25%
Accessories Index	1.08	0.39	1.54	0.48	4.76%	8.45%	14.12%	8.27	10.92	0.41	9.99	17.76	20.57	191.75%	7.64%	6.77%
Textile, Dyeing & Printing Index	3.22	0.53	1.24	0.23	4.30%	3.45%	7.25%	3.40	3.48	0.13	0.84	60.50	109.69	84.71%	4.42%	2.50%

Appendix 08: Formulas Used

1. Liquidity Ratios

1.1 Current Ratio
Current Ratio = Current Assets ÷ Current Liabilities

1.2 Cash Ratio
Cash Ratio = (Cash + Cash Equivalents) ÷ Current Liabilities

2. Profitability Ratios

2.1 Return on Assets (ROA)
ROA = Net Profit After Tax ÷ Total Assets

2.2 Return on Equity (ROE)
ROE = Net Profit After Tax ÷ Shareholders' Equity

2.3 Net Profit Margin
Net Profit Margin = Net Profit After Tax ÷ Total Revenue

3. Solvency / Leverage Ratios

3.1 Debt-to-Asset Ratio
Debt-to-Asset Ratio = Total Liabilities ÷ Total Assets

3.2 Debt-to-Equity Ratio
Debt-to-Equity Ratio = Total Liabilities ÷ Shareholders' Equity

4. Efficiency Ratios

4.1 Asset Turnover Ratio
Asset Turnover Ratio = Total Revenue ÷ Total Assets

5. Growth Analysis

5.1 Year-on-Year Growth Rate
Growth Rate (%) = [(Current Year Value − Previous Year Value) ÷ Previous Year Value] × 100

6. Vertical Analysis

6.1 Income Statement Vertical Analysis
Each Item (%) = (Individual Item ÷ Total Revenue) × 100

6.2 Balance Sheet Vertical Analysis
Each Item (%) = (Individual Item ÷ Total Assets) × 100

7. Horizontal Analysis

7.1 Horizontal Analysis Formula
Change (%) = [(Current Year − Base Year) ÷ Base Year] × 100

8. Value-Based Performance Measures

8.1 Economic Value Added (EVA)
EVA = NOPAT − (WACC × Capital Employed)

Where:

- NOPAT = Net Operating Profit After Tax
- WACC = Weighted Average Cost of Capital
- Capital Employed = Total Assets − Current Liabilities

8.2 Market Value Added (MVA)
MVA = Market Value of Equity − Book Value of Equity
MVA = (Share Price × Number of Shares) − Shareholders' Equity

9. DuPont Analysis

9.1 DuPont Return on Equity (ROE) Model
ROE = Net Profit Margin × Asset Turnover × Equity Multiplier

Expanded form:
ROE = (Net Profit ÷ Revenue) × (Revenue ÷ Total Assets) × (Total Assets ÷ Equity)

10. Supporting Ratios Used in DuPont

10.1 Net Profit Margin
Net Profit Margin = Net Profit ÷ Total Revenue

10.2 Asset Turnover Ratio
Asset Turnover = Total Revenue ÷ Total Assets

10.3 Equity Multiplier
Equity Multiplier = Total Assets ÷ Shareholders' Equity

11. ICRR-Specific Quantitative Ratios

11.1 Debt to Tangible Net Worth (DTN)
DTN = Total Debt ÷ Tangible Net Worth

11.2 Debt to Total Asset (DTA)
DTA = Total Debt ÷ Total Assets

11.3 Interest Coverage Ratio (IC)
Interest Coverage = EBIT ÷ Interest Expense

11.4 Debt Service Coverage Ratio (DSCR)
DSCR = Operating Cash Flow ÷ Debt Service Obligations

11.5 Operating Cash Flow to Sales
OCF to Sales = Operating Cash Flow ÷ Net Sales