Report On

Impact of Financial & Economic Indicators on the Performance of Infrastructure Development Company Limited (IDCOL)

By

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

[BRAC Business School]
Brac University
[January] [2025]

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.

Student's Full Name & Signature:

Farhan Sadique

Student ID: 22264046

Supervisor's Full Name & Signature:

Saif Hossain

Assistant Professor, BRAC Business School

BRAC University

Letter of Transmittal

Saif Hossain

Assistant Professor

BRAC Business School

BRAC University

Kha-224 Merul Badda, Dhaka 1212.

Subject: Submission of internship report on **"Impact of Financial & Economic Indicators on the performance of Infrastructure Development Company Limited (IDCOL)."**

Dear Sir,

It is my pleasure to present this report on "Impact of Financial & Economic Indicators on the performance of Infrastructure Development Company Limited (IDCOL)" to you which is a requirement for completing BUS699 course.

I have attempted my best to finish the report with the essential data related to the financial indicators, economic indicators and financial performance of IDCOL. Relevant analysis has been incorporated in the report which helps me a lot to analyze how financial and economic indicators impact on the performance of IDCOL.

I trust that the report will meet the requirements.

Sincerely yours,

____

Student Full Name: Farhan Sadique

Student ID: 22264046

BRAC Business School

BRAC University

Date: 30-01-2025

Non-Disclosure Agreement

This agreement is made and entered into by and between Infrastructure Development Company Limited (IDCOL) and Farhan Sadique.

I, Farhan Sadique, agree to maintain full confidentiality regarding any information obtained from Infrastructure Development Company Limited (IDCOL) and will not disclose any confidential information even after the completion of my tenure with the company.

Student's Full Name & Signature

____

Farhan Sadique

Student ID: 22264046

Organization Supervisor's Full Name & Signature

____

Md. Aqil Ahmed

SAVP & Unit Head, Public Private Partnership

Infrastructure Development Company Limited (IDCOL)

Acknowledgement

Firstly, I am very grateful to Almighty Allah to give me the opportunity to work as Senior Investment Officer at Infrastructure Development Company Limited (IDCOL).

I am grateful to my supervisor Mr. Saif Hossain who guides me a lot to prepare this report. It is an amazing experience for me to prepare this report under the excellent guidance of Mr. Saif Hossain. Moreover, I am grateful to my colleagues of my organization who provided me information in preparing this report.

Executive Summary

The report defines the impact of financial and economic indicators on the performance of IDCOL. The objective of the report includes measuring the company's financial indicators, observing Bangladesh's economic indicators, assessing company's financial performance and assessing the relationship of financial & economic indicators with the performance of the company. Relevant data has been collected from company's annual report, Bangladesh bank website, IMF website and other credible sources. Trend analysis of the financial, economic and performance indicators have been conducted in the project part. Financial indicators like NPL Ratio, Loan-loss Provision Ratio, Debt-Equity Ratio show an upward trend for the last 15 years. Other financial indicators like the cost-income ratio and capital adequacy ratio show a mixed trend. Economic indicators like GDP growth rate, inflation rate, trade-GDP ratio show a mixed trend over the last 15 years with some fluctuations. Growth of BDT exchange rate against US dollar shows an upward trend over the last 15 years. Financial performance indicators like ROA, ROI and ROE highlight mixed trends for the last 15 years with a combination of upward and downward trends. Multiple linear regressions have been conducted to observe the impact of financial & economic indicators on Return on Investment of IDCOL. From regression analysis, it is found that NPL Ratio, Debt-Equity Ratio, GDP Growth Rate and Trade-GDP ratio have significant impact on the ROI of the organization.

Keywords: Trend analysis, financial indicators, economic indicators, financial performance, NPL Ratio, Loan-loss Provision Ratio, Debt-Equity Ratio, ROA, ROI, ROE, etc.

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List of Acronyms

CBS	Core Banking System
HRMS	Human Resource Management System
IDCOL	Infrastructure Development Company Limited
NPL	Non-Performing Loan
ROA	Return on Assets
ROE	Return on Equity
ROI	Return on Investment

Glossary

Return on Investment	Net Income/Total Investment
Return on Asset	Net Income/Total Assets
Return on Equity	Net Income/Total Equity
Multiple R	Reflecting correlation between independent and dependent variable
Adjusted R	Explanation of variation in dependent variable by independent variable

Chapter 1: Overview of Internship

1.1 Student Information

Name: Farhan Sadique

ID: 22264046

Program: Master of Business Administration

Major: Finance

1.2 Internship Information

1.2.1 Period, Company Name, Department, Address

Period: 2 years (Full time job)

Company: Infrastructure Development Company Limited (IDCOL)

Department: Investment

Address: UTC Building, 16th Floor, 8 Panthapath, Kawran Bazar, Dhaka-1215, Bangladesh

1.2.2 Internship Company's Supervisor's Information

Name: Md. Aqil Ahmed

Position: SAVP & Unit Head, Public Private Partnership (PPP)

1.2.3 Job Description/Duties/Responsibilities

As a senior investment officer, I have various responsibilities in my workplace. My job description includes analyzing the feasibility of the projects, conducting rigorous due diligence of the project, monitoring various aspects of the infrastructure projects, meeting the yearly target set by the management and maintaining liaison with the project sponsors, co-financiers, credit line providers and related stakeholders and analyzing customers' loan repayment behavior. Firstly, my task is to do the feasibility analysis of the project through conducting a series of analysis. Secondly, conducting rigorous due diligence of a project which includes preparing financial model, credit proposal, risk grading model, analyzing CIB report to understand customer's repayment behavior, etc. Thirdly, monitoring financial, operational, environmental and social performance of the existing projects of the company's loan portfolio. Moreover, maintaining liaison with the project sponsors, co-financiers, credit line providers and related stakeholder. This responsibility includes fulfilling the requirements of development financial institutions like ADB, JICA, KfW, AfD, AIIB etc., coordinating with other banks to implement syndication loan facility etc.

1.3 Internship Outcomes

1.3.1 Student's contribution to the company

I have contributed to various areas of my public private partnership unit under investment department. Firstly, I have analyzed the feasibility of the projects through preparing credit memo, financial model, risk grading model. Secondly, I must be aware of checking the information of the borrower company and all the shareholders to verify whether any local or international sanction is imposed on them. To verify it, I prepare report on the customers through using AML-CFT software. Thirdly, I monitor financial, operational, environmental and social performance for the assigned projects. Moreover, I complete all types of loan documentation to disburse loans to some of our projects.

1.3.2 Benefits to the student

My job experience in IDCOL has provided me huge learning opportunities over the last two years. My job responsibilities are entirely matched with my qualifications. As I completed my major in Finance, I got huge interest in accomplishing my tasks at the investment department. Working in the investment department gives me practical experience of investment opportunities, challenges and benefits. Preparing financial models help me a lot to understand the aspects of finance in an efficient way. Project financing helps me a lot to understand the feasibility of infrastructure projects in Bangladesh. I learnt how to assess various types of projects. This learning will help me a lot to understand the viability of mega projects.

1.3.3 Difficulties faced during the internship period

During my internship at IDCOL, I faced some challenges that provided me valuable learning opportunities for personal and professional growth. It was quite challenging for me to adapt myself in the work environment of my organization since I had to familiarize myself with various industry related terminologies, financial models, regulatory frameworks and the processes of the work in IDCOL. In addition, managing multiple tasks within tight deadlines seemed difficult to me but it enhanced my time management and prioritization skills. Overall, these challenges have contributed to my professional development positively, equipping me with the skills to flourish in similar roles in the future.

1.3.4 Recommendations

Firstly, the organization should introduce a structured orientation and training program for the new joiners which will help them a lot to grasp the work process and culture of the organization. Secondly, guiding the new joiners through assigning mentors will facilitate good guidance and deep understanding of key responsibilities. Thirdly, providing interns with opportunities to work on infrastructure projects will provide them hands on experience regarding various aspects of a assessing a project. These recommendations will support the company in enhancing its reputation for ensuring a employee friendly work environment for future professionals.

Chapter 2: Organization Part

2.1 Introduction:

2.1.1 Overview of the company

IDCOL is a government owned financial institution in Bangladesh which is established in 1997. Economic Relations Division of Ministry of Finance governs this organization. “The vision of the company is to help ensure the country’s economic development and improve the standard of living of the people through sustainable and environment friendly initiatives” (Infrastructure Development Company Limited, 2023). “The mission of the company is catalyzing its presence in promotion, development and financing of infrastructure as well as energy-efficient and renewable energy projects in a sustainable manner.” (Infrastructure Development Company Limited, 2023)

2.1.2 Core Values

Category	Details
Global Standard & Competence	The commitment of the company is to maintain global standards and competence through providing financial services to the customers.
Transparency and Integrity	The company is committed to ensure transparency and integrity in all its activities.
Social Responsibility	The company is enthusiastic to articulate social responsibility as a development financial institution.

Table 1: Core Values of IDCOL

2.1.3 Shareholding structure of IDCOL:

SL. No.	Name of Shareholders	No. of shares	Paid-up Capital in BDT	Percentage
1	Economic Relations Division (ERD), Ministry of Finance, Government of the People's Republic of Bangladesh	83,799,000	8,379,900,000	99.9988067%
2	Mr. Md. Shahriar Kader Siddiky, Secretary, Economic Relations Division (ERD), Ministry of Finance	450	45,000	0.0005370%
3	Principal Secretary of Chief Advisor, Chief Adviser's Office	50	5,000	0.0000597%
4	Mr. Md. Habibur Rahman, Former Senior Secretary, Power Division	50	5,000	0.0000597%
5	Dr. Md. Khairuzzaman Mozumder, Secretary, Finance Division, Ministry of Finance	50	5,000	0.0000597%
6	Secretary , IRD and Chairman, National Board of Revenue, Ministry of Finance	50	5,000	0.0000597%
7	Mr. Md. Selim Uddin, Secretary, Ministry of Commerce	50	5,000	0.0000597%
8	Secretary, Chief Adviser's Office	50	5,000	0.0000597%
9	Mr. Farid Aziz, Additional Secretary, WB Wing, Economic Relations Division (ERD), Ministry of Finance	50	5,000	0.0000597%
10	Ms. Nihad Kabir, Barrister-At-Law, Senior Partner, Syed Ishtiaq Ahmed & Associates	50	5,000	0.0000597%
11	Mr. Abdul Haque, Managing Director, Haq's Bay Automobiles Ltd.	50	5,000	0.0000597%
12	Mr. A. K. M. Nurul Fazal Bulbul, Vice-chairman, Central Depository Bangladesh Limited (CDBL)	50	5,000	0.0000597%
13	Mr. Alamgir Morshed, Executive Director and CEO, IDCOL	50	5,000	0.0000597%
	Total	**83,800,000**	**8,380,000,000**	**100.00%**

Table 2: Shareholding Structure

2.1.4 Key Information:

Category	Details
No. of project financed till 31 Dec 2023	96
Total loan disbursed till 31 Dec 2023	BDT 13,587 crore
No. of project financed till 31 Dec 2023	13
Total loan disbursed during 31 Dec 2023	BDT 2,050 crore

Table 3: Key Information

2.2 Management Practices:

2.2.1 Responsibilities of the Board of Directors

Major responsibilities:

- The directors of the board hold the responsibility for attaining the long-term success of the company through ensuring efficient leadership to accomplish excellent financial performance.
- They set the strategy of the company, approve the strategy, and take required action for ensuring that the company has sufficient resources to achieve its objectives.
- They consider the impact of their steps for implementing the strategies to stakeholders including the employees, clients, shareholders, regulatory bodies and the communities in which the company operates.

2.2.2 Committees of the board

Audit Committee: IDCOL's audit committee comprises five members of the company whose responsibilities include ensuring the independence of the auditors to conduct audit without facing any influence of management. Moreover, monitoring financial statements' integrity, reviewing internal financial control, and recommending appointment or replacement of external auditors.

Credit Committee: IDCOL's credit committee comprises of seven members who hold the responsibility for reviewing all loan proposals before submission to the Board for approval. The approval of the credit committee is compulsory before submission of the proposal to the Board for final approval. It analyzes the credit proposal to see its consistency with lending policy of the company, guidelines of the central bank and relevant laws etc.

Organization Committee: IDCOL's organization committee comprises six members who hold the responsibility for supervising the human resource strategies and policies of the company. The strategies are as follows:

- Appointing high quality employees with the ability to lead the business efficiently.
- Ensuring diversification of workforce in the organization.
- Suggesting HR to arrange necessary training programs which will train the employees to perform their duties efficiently.
- Emphasizing to establish a high-performance culture and employee engagement that will boost the success of the organization.
- Ensuring adequate recognition and compensation for employees which will motivate them to show high performance.

2.2.3 Practices of Management Committee

2.2.4 Human Resources Management:

IDCOL HR strategy is focused on investing in employee development and engagement, ensuring the appropriate internal arrangements and practices in place, and supporting business growth and development since its inception.

Highlights of IDCOL's people practice strategy:

Recruitment:

IDCOL believes that recruitment of efficient candidates is highly necessary for ensuring a vibrant workforce which leads to the ultimate success of the company. At IDCOL, employees are recruited based on the required educational qualifications and capabilities needed for the work to be performed. Any direct or indirect solicitation results in the disqualification of the candidature during the recruitment process. (Infrastructure Development Company Limited, 2023)

Compensation and benefit package:

IDCOL provides a strong combination of direct compensation and benefits that includes cash compensation, performance bonus, festival bonus, provident fund, gratuity, Leave Fare Assistance (LFA), hospitalization benefit and group life insurance benefit. (Infrastructure Development Company Limited, 2023)

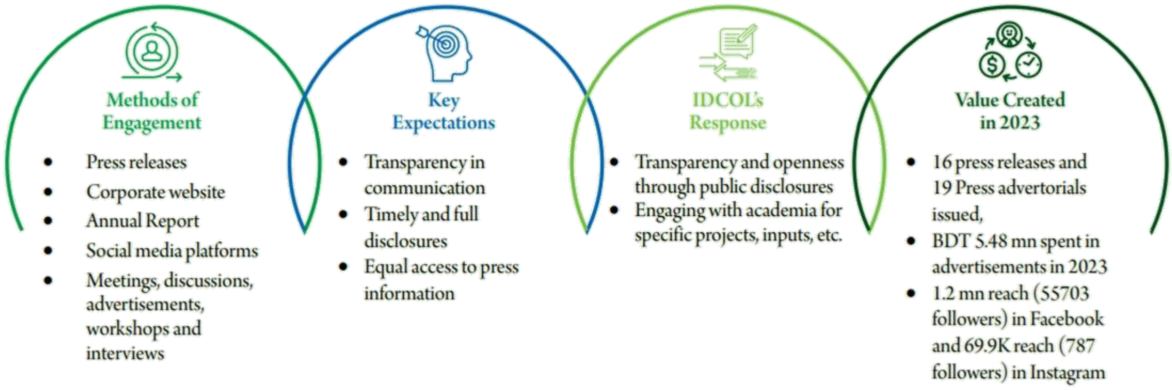
Training and development:

The company arranges various type of training and development programs like in-house training program, seminars, workshops for its employees to enrich their skills and knowledge.

The HR of the company focuses on building the capacity of the employees. Formal induction program is arranged for the new joiners where they receive company's overview. During 2023, the employees started to learn on AML & CFT through e-learning course. (Infrastructure Development Company Limited, 2023)

2.3 Marketing practices:

IDCOL operates in a specialized sector where marketing is not as consumer driven like in FMCG industries, its marketing practices mainly align with promoting its financial services, creating awareness about its developmental impact among its stakeholders. IDCOL's customer base includes RMG, power & energy, cement, telecom, utilities, hotels & hospitality, pharmaceuticals, etc. The company's customers also include private companies, micro-finance institutions, societies, foundations, etc. (Infrastructure Development Company Limited, 2023)



2.4 Financial Performance and Accounting Practices

Ratios	2019	2020	2021	2022	2023
Debt Ratio (%)	83.57	83.88	81.81	79.02	79.19
Debt Service Coverage Ratio (times)	2.6	3.37	3.11	3.65	1.9
Financial expense coverage ratio (times)	5.85	5.09	5.35	5.97	3.24
Current ratio (times)	15.19	12.84	9.36	2.07	1.93
Return on investment (%)	1.99	1.92	1.45	1.82	1.71
Return on equity (%)	16.5	16.63	10.86	12.33	13.37
Profit margin (%)	25.63	34.24	20.73	15.21	18.71
Earnings per share (BDT)	16.45	18.32	13.09	16.11	18.87

Table 4: Financial Performance (Last 5 years)

Debt Ratio: The debt ratio of the company has been showing a declining trend from 2019 to 2023. This trend indicates that it has reduced its reliance on debt financing. A low debt ratio is usually favorable since it defines financial stability of financial institution. The ratio is still high, suggesting that a major portion of the organization's are financed through debt.

Debt Service Coverage Ratio (DSCR): The ratio fluctuated from 2019 to 2022, but sharply declined to 1.9 in 2023. A decreasing trend in DSCR indicates its reduced capacity to meet debt obligations through operating profit. Maintaining a high DSCR is a must for a financial institution to retain its financial stability.

Financial Expense Coverage Ratio: The ratio showed a mixed trend from 2019 to 2023. The ratio highlights how well the earnings of IDCOL can cover its financial expenses. The sharp decline in 2023 becomes a concern regarding about financial risk and sustainability.

Current Ratio: This ratio has been showing a declining trend from 2019 to 2023 highlighting a reduced liquidity position of IDCOL. A current ratio usually close to 2 is usually acceptable but the prevailing declining trend signals short-term liquidity issues.

Return on Investment (ROI): The ratio showed a mixed trend from 2019 to 2023. From 2019 to 2021, the ROI sharply fell due to the impact of Covid-19. In 2022, the ROI recovered to 1.82% but declined to 1.71% in 2023.

Return on Equity (ROE): ROE increased from 2019 to 2020 but fell sharply in 2021 due to the impact of covid-19 pandemic but recovered gradually in 2022 and 2023.

Profit Margin: The profit margin of the organization fluctuated over the last 5 years. It showed a declining trend from 2019 to 2022 but recovered slightly in 2023. But the profit margin of 18.71% is still lower than the profit margin levels during 2019-20.

Earnings per Share (EPS): EPS of the company showed a mixed trend over the last 5 years. In overall, IDCOL has managed to grow its earnings for its shareholders.

Accounting practices:

IDCOL follows International Financial Reporting Standards (IFRS) and International Accounting Standards (IAS) which are globally accepted accounting principles. The company follows accrual basis of accounting, meaning revenues and expenses are recognized when earned or incurred, not cash is received and paid. The company prepares Balance Sheet, Income Statement, Cash flow Statement and Statement of Changes in Equity in line with IFRS/IAS

The organization uses Straight Line Method of depreciation for its tangible fixed assets. The useful life of assets is based on IAS 16 (Property, Plant and Equipment). Depreciation rates are published in the notes of the financial statements. The company adheres to IFRS15 in revenue recognition. It demonstrates robust and transparent accounting disclosures in the annual reports.

2.5 Operations Management and Information System Practices

IDCOL has set up modern information systems to enhance its operations and decision-making processes. These systems are necessary in collecting, storing and processing data for the portfolio of the companies regarding infrastructure, renewable energy and energy-efficiency projects. Sharing information with various stakeholders is streamlined through centralized and automated platforms. (Infrastructure Development Company Limited, 2023)

Recently, IDCOL has introduced two software including Core Banking System (CBS) and Human Resource Management System (HRMS). CBS will play a vital role in streamlining back-office operations and improving daily operations. HRMS has been introduced to centralize core HR functions including employee attendance, leave request, payroll etc.

The company invests in IT system for upgradation and automation technologies to enhance operational efficiency and transparency.

IDCOL follows global standards in evaluating projects and developing risk management processes, ensuring high quality outcomes. Appropriate monitoring along with ensuring compliance enhances credibility. The company implements project scheduling techniques, specifically in large infrastructure and renewable energy projects. The company manages its resources to align with the development priorities of the govt. such as energy efficiency financing, renewable energy financing etc.

The company has centralized its operations to ensure operational efficiency. It explores automation and digitization to improve operational processes, decrease costs and ensure scalability. These systems and practices help IDCOL to retain its position as a leading development finance institution in Bangladesh.

2.6 Industry and Competitive Analysis

SWOT Analysis

Strengths:

- The equity base and profitability ratios like ROA, ROE reflect strong financial health
- The portfolio of the company is diverse since it finances across infrastructure, renewable energy, energy efficiency etc.
- Since it is a govt. owned financial institution, IDCOL has gains credibility and develops strong relationships with stakeholders, including development partners and international donors.
- Investment in CBS and HRMS enhances operational efficiency.
- Advisory services in international markets like Malawi and Ethiopia showcase its expertise and capability to expand cross-border.

Weaknesses:

- A big portion of the company's project financing depends on the funding of development partners like ADB, JICA, KfW, AfD, World Bank etc. The funding of the development partners is impacted by geopolitical and economic changes.
- IDCOL's loan portfolio's high concentration in specific sectors like power and energy increases vulnerability to sector specific downturns.
- NPL ratio of the company has been increasing consistently over the last few years which impact the performance of the company.

Opportunities:

- LDC graduation of Bangladesh may open access to new markets and investment opportunities.
- Rapid growth infrastructure projects in our country will pave the way for IDCOL to invest more in the infrastructure projects.
- The govt. of Bangladesh focuses on implementing energy efficiency and renewable energy projects which helps IDCOL to boost its investment in those areas.
- Advisory services of the company grab the attention of many countries in the world. It will open up new opportunities for IDCOL to expand its advisory services in the other countries.

Threats:

- High inflation, exchange rate fluctuations and rising interest rates can impact its financial stability and operational costs.
- Changes in environmental and financial regulations could increase additional compliance costs.
- The dependence of IDCOL on foreign funding makes it susceptible to global economic and political uncertainties.

Porter's Five Forces Analysis:

Threat of New Entrants:

- High capital requirements and regulatory approval need create entry barriers significantly.
- The strong reputation and established relationships with development partners provide IDCOL a competitive edge.
- The new entrants will require significant investment and expertise to compete with IDCOL which has extensive experience and brand portfolio of services.

Bargaining Power of Suppliers:

- International development partners act as suppliers for funding the projects.
- Excellent track records of IDCOL for successful execution of projects reduces the suppliers' ability to impose unfavorable terms and conditions.

Bargaining Power of Buyers:

- IDCOL's stakeholders include private sector clients, govt. entities and other project implementation agencies.
- The customers can negotiate terms and conditions due to the availability of alternative banks and financial institutions, but the specialization of IDCOL in development and sustainable financing gives it a massive edge.

Threat of Substitutes:

- The offering of project financing by other commercial banks and financial institutions pose a substitute threat.
- IDCOL's focus on sustainable and long-term financial solutions differentiates it from traditional banks and non-banking financial institutions.

Industry Rivalry:

- Commercial banks and non-banking financial institutions are the main competitors of IDCOL.
- IDCOL's focus on energy efficiency, infrastructure and renewable energy, coupled with the backing of the govt., mitigates some of the competitive pressures.

2.7 Summary and Conclusions:

The above-mentioned organizational analysis describes various aspects of IDCOL. Since it is a govt. owned financial institutions, it plays a pivotal role in financing energy-efficiency and renewable energy projects in Bangladesh. This role of IDCOL reflects its commitment to implement national development goals.

2.8 Recommendations

- The company should strengthen branding and promotional activities, specifically in digital platforms. Promoting the products and services of the company will enhance its visibility and attract more diverse stakeholders.
- In order to mitigate risks associated with dependence on specific development partners for project funding, it should explore alternative financing options to collect more funds in the near future.
- The workforce of the company is not adequate to accomplish all the tasks. So, it should recruit more employees to fill the gap of the workforce.
- The company should address regulatory shifts proactively to develop a robust compliance framework.

Chapter 3: Impact of Financial & Economic Indicators on the Performance of Infrastructure Development Company Limited (IDCOL)

3.1 Introduction

3.1.1 Literature Review

Financial and economic indicators are fundamental for analyzing the performance of a financial institution. For IDCOL, financial indicators like NPL ratio, loan loss provision ratio, capital adequacy ratio, debt-equity ratio and cost-income ratio as well economic indicators like GDP growth rate, inflation rate and trade to GDP ratio play a vital role.

Macroeconomic variables like GDP growth rate, inflation rate, interest rate and currency exchange growth rate have an impact on the financial performance metric ROA of non-banking financial institutions in Kenya. (Ongeri, 2014). In addition, the study also asserts that return on assets has a strong relationship with currency exchange growth rate and a weak positive relationship with quarterly GDP, interest rate and inflation rate. (Ongeri, 2014). Terraza (2015) claimed that bank capital and liquidity indicators had an impact on the profitability of the banks. He added that liquidity risk had a positive relationship on the performance of the small banks. Financial indicators play a vital role in determining the profitability of the profitability of the banks. (Amalia & Nugraha, 2021). Amalia & Nugraha (2021) also explained that Capital Adequacy ratio and Non-Performing loan ratio had a significant impact on the profitability of a bank. Financial risk indicators actively influence the performance of commercial banks. (Zhongming, Frimpong, & Guoping, 2019). In addition, there is a long run equilibrium relationship between financial risk indicators and banks' financial performance, ROA. (Zhongming, Frimpong, & Guoping, 2019). This highlight that proper diversification of assets can lead to improved performance of the banks in Ghana. (Zhongming, Frimpong, & Guoping, 2019).

3.1.2 Objectives:

1. To measure the major financial indicators of IDCOL for the past 15 years
2. To observe the economic indicators of Bangladesh for the past 15 years
3. To assess the performance of IDCOL for the past 15 years

4. Assessing the relationship of financial and economic indicators with the performance of IDCOL through regression analysis

3.1.3 Significance:

This research has significant implications as it will provide an important insight regarding how the financial and economic indicators influence the financial performance of an organization like IDCOL over the last 15 years. In addition, it will generate the trends of the financial and economic indicators which will be helpful for the policy makers to initiate the strategies for fostering the future performance of the organization.

3.2 Methodology:

To conduct the analysis, I collect data from the annual report of IDCOL, Bangladesh Bank website, website of trading economics, IMF website etc. Moreover, I talked with my colleagues to collect information about IDCOL which helped me a lot to understand the financial performance of IDCOL. For conducting the analysis related to the first objective "Analysis of major financial indicators of IDCOL over the last 15 years", I collected the required information from the annual report of IDCOL to analyze the financial indicators including NPL ratio, Capital Adequacy ratio, Loan loss provision ratio, Debt-Equity ratio and Cost-Income ratio. To do the analysis related to the second objective "Analysis of major economic indicators of IDCOL over the last 15 years", I collected data from Bangladesh Bank Website, trading economics website and IMF to analyze economic indicators. For conducting the third objective "Assessing the performance of IDCOL for the last 15 years", I collected data from annual report of the company and discussed with my colleagues to find out the reasons for the fluctuation in company's performance. To do the analysis on the fourth objective "Assessing the relationship of financial and economic indicators with the performance of IDCOL through regression analysis", I conducted three regression analysis to find out the impact of financial and economic indicators on the performance of the company. Here, I use the data collected from the annual report and study other journals to find out the dependent and independent variables.

3.3 Findings and Analysis:

3.3.1 Analysis of major financial indicators of IDCOL over the last 15 years

NPL Ratio: Non-performing loan ratio shows an upward trend from 2009 to 2023. Beginning at a low of 1.16%, it fluctuated moderately till 2015, when it accelerated to 6.22% significantly. The ratio peaked at a NPL ratio of 10.91% in 2017 and slightly decreased afterward before rising it again, reaching its highest level of 11.92% in 2023. The consistent increase of NPL ratio becomes a growing concern for the organization. It indicates the growing challenge for the company in recovering loan from its clients.

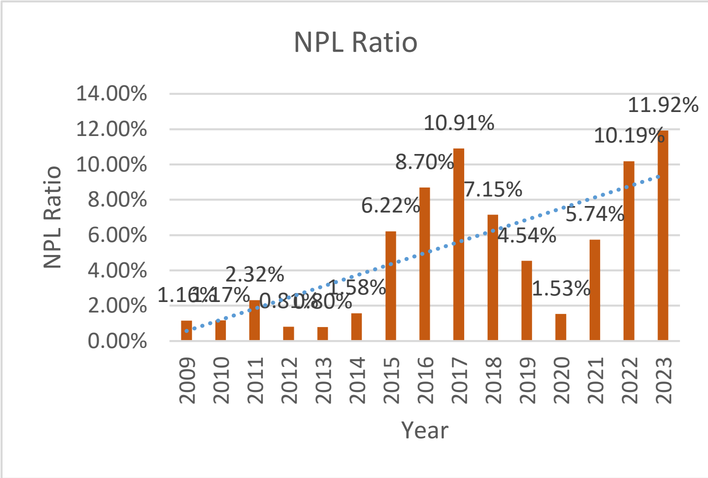


Figure 1: NPL Ratio

Capital Adequacy Ratio:

The Capital Adequacy Ratio of the company shows an upward trend from 2009 to 2023. Starting at a ratio of 10.30% in 2009, it increased consistently, reaching a peak of 20.76% in 2022 before declining to 19.25% in 2023. The consistent increase of the ratio reflects IDCOL's strong capital base and efficient risk-weighted asset management, ensuring compliance with regulatory requirements. Maintaining high capital adequacy ratio is crucial for IDCOL to absorb shocks, sustain growth and gain the trust of stakeholders in its financial soundness.

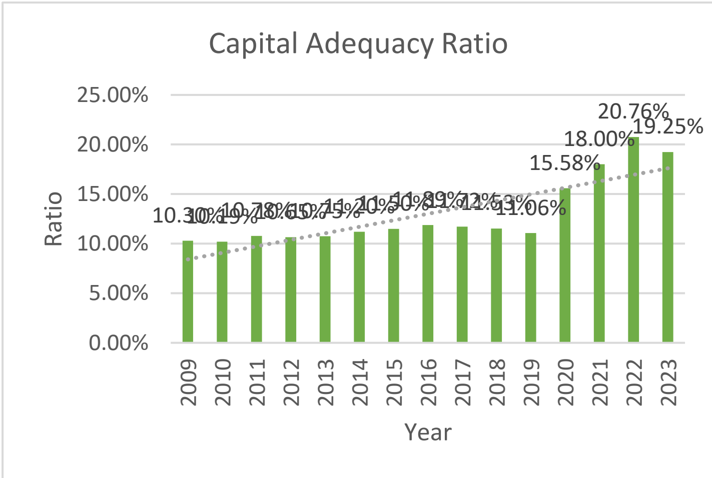


Figure 2: Capital Adequacy Ratio

Loan Loss Provision Ratio:

This ratio has been increasing consistently from 2009 to 2023. Starting at a ratio of 0.77%, it increased gradually, reaching a peak of 6.40% in 2022. The ratio then decreased to 2.55% in 2023. The loan loss provision ratio assesses the amount of money a financial institution sets aside to cover potential losses on loans that are unlikely to repaid. A higher ratio defines a higher level of risk associated with the loan portfolio.

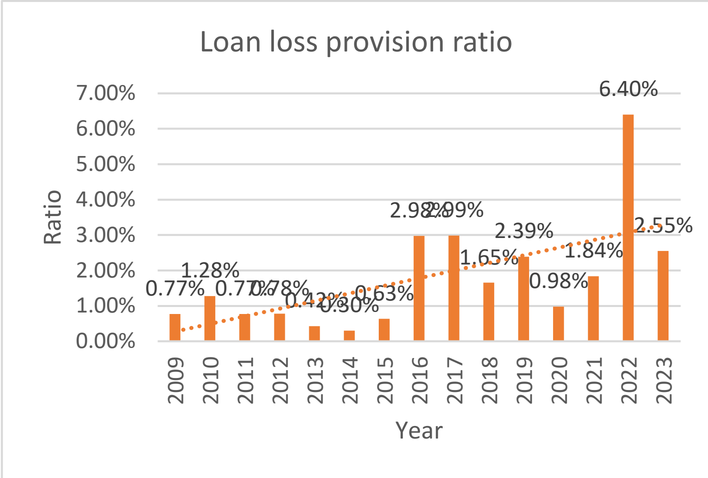


Figure 3: Loan Loss Provision Ratio

Debt-Equity Ratio:

Debt-Equity ratio of the company shows an upward trend from 2009 to 2023, with some fluctuations among the trend. Debt-Equity ratio assesses a company's financial leverage by comparing its total debt to total equity. A high debt-equity ratio defines a company's greater proportion of debt to the total equity. The increasing trend of the ratio suggests that the company is actively investing in growth initiatives which require debt

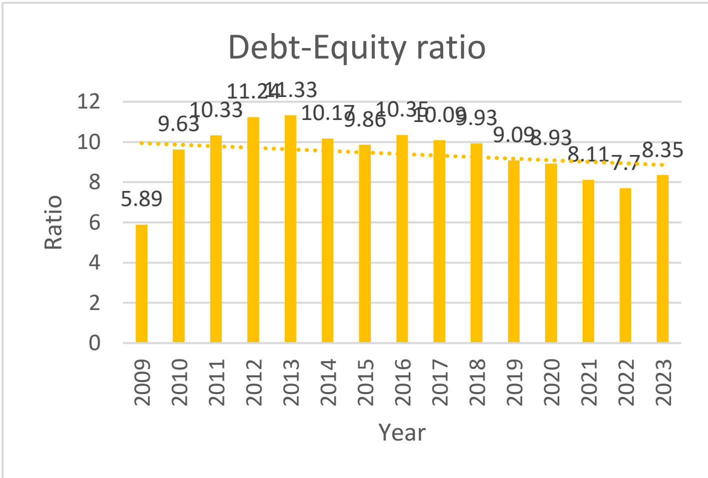


Figure 4: Debt-Equity Ratio

financing significantly.

Cost-Income Ratio:

The cost-income ratio of the company shows an upward trend with some fluctuations from 2009 to 2023. Starting at a ratio of 4.94%, it increased gradually, reaching a peak of 14.12% in 2020. The ratio then fluctuated again till 2023. This ratio is a crucial metric for the company since it defines the operational efficiency. A lower ratio highlights higher operational efficiency, indicating that the organization is generating more revenue per unit of cost. Proper monitoring and managing the ratio is highly necessary for the company to retain its financial strength and competitiveness.

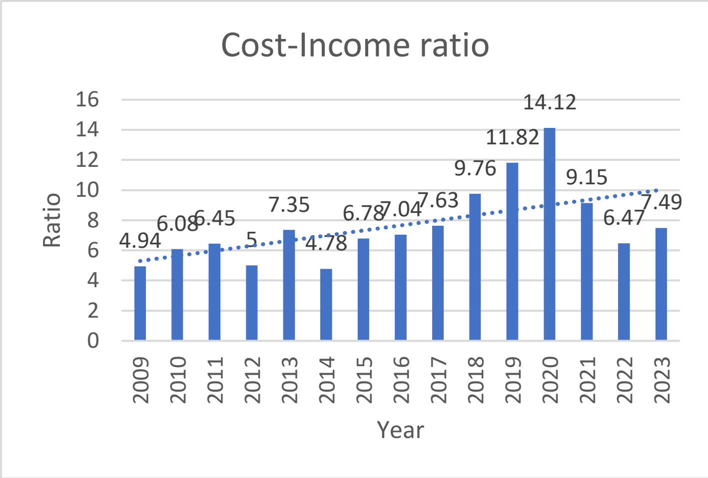


Figure 5: Cost-Income Ratio

3.3.2 Analysis of major economic indicators of Bangladesh over the last 15 years

GDP Growth Rate:

The GDP growth rate of Bangladesh has shown a positive trend from 2009 to 2023. Beginning with 5.05% in 2009, it experienced a steady increase till 2012, reaching 6.52%. Subsequently, it retained a stable growth between 6%-7% from the period of 2013 to 2018, with a notable growth rate of 7.88% in 2018. GDP growth rate dropped in 2020 due to the impact of Covid-19 pandemic. The economy bounced back in 2021 & 2022 with the growth rates of 6.94% and 7.10% respectively. Bangladesh has maintained resilience in its economic growth over the last 15 years despite facing major challenges.

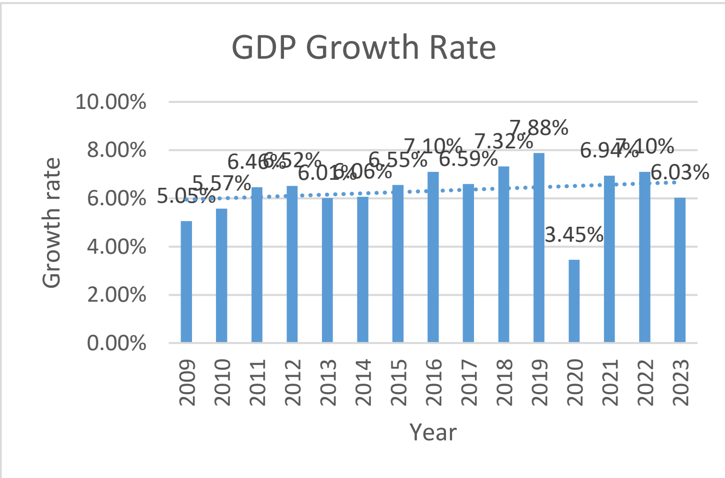


Figure 6: GDP Growth Rate

Inflation Rate:

The inflation rate in our country has been increasing steadily from 2009 to 2023. Starting at an inflation rate of 5.42% in 2009, it increased significantly to 11.40% in 2009. Subsequently, it decreased to 6.22% in 2012 and remained stable between 6%-7% till 2018. A notable spike occurred in 2023 due to the impact of foreign currency crisis and the impact of Russia-Ukraine War. Over the last 15 years, inflation has been a growing concern for us, the govt. has adopted various measures to keep it under control.

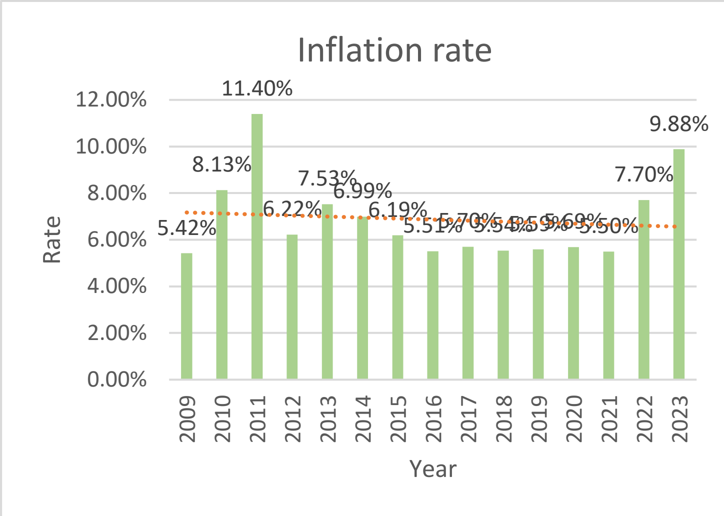


Figure 7: Inflation Rate

Trade-GDP Ratio:

This ratio has shown a declining trend from 2009 to 2023. Starting at a ratio of 40.09%, the ratio reached its peak point of 48.11% in 2012 but has experienced a gradual decrease, reaching 30.98% in 2023. The downward trend indicates a reduced share of trade activities in comparison to the GDP of our country. Several factors play a role in declining the ratio including slow export growth, rising import restrictions and global uncertainties like Russia-Ukraine War, Middle east war etc. This ratio is important as it reflects economic openness.

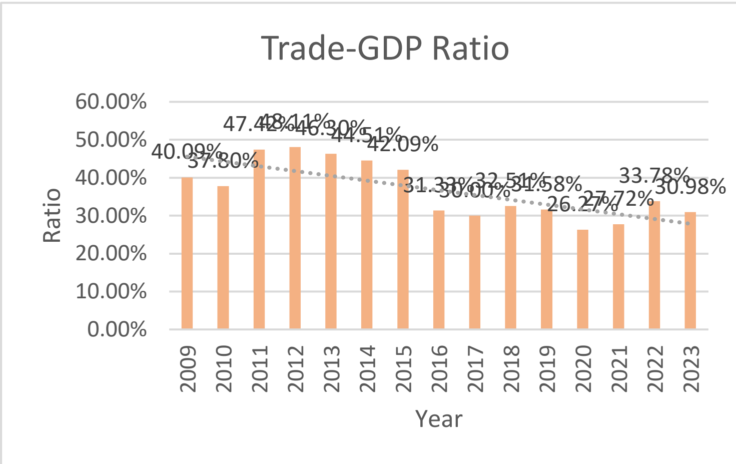


Figure 8: Trade-GDP Ratio

Growth of BDT exchange rate:

The growth of BDT exchange rate shows an increasing trend from 2009 to 2023 with some fluctuations. The exchange rate growth notably increased in 2011, reflecting global economic pressures and rising import costs. After 2011, the exchange rate of BDT against USD became stable till 2018. Since 2018, there has been a gradual increase in the exchange rate, peaking sharply in 2022 and 2023, likely driven by inflationary pressures, a global surge in the demand for USD and supply chain disruptions caused by Russia-Ukraine war, Israel-Palestine war etc. The persistent depreciation of BDT against USD puts huge pressure on our foreign currency reserve and it creates a trade imbalance which affects our life through creating massive inflation.

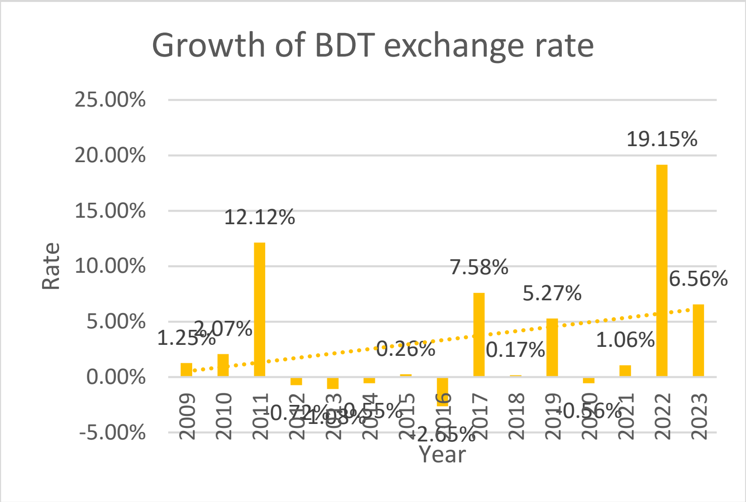


Figure 9: Growth of BDT Exchange Rate

3.3.3 Assessing the performance of IDCOL for the last 15 years

Return on Investment:

Return on investment of IDCOL shows a downward trend over the last 15 years. Beginning at 6.19% in 2009, the ROI consistently declined over the years with some fluctuations. Signification reduction of ROI occurs after 2014, with ROI dropping below 2% from 2016 onwards. The lowest ROI was recorded back in 2016 and recent figures of 1.82% and 1.71% in 2022 and 2023 respectively show limited recovery but remain significantly below earlier levels.

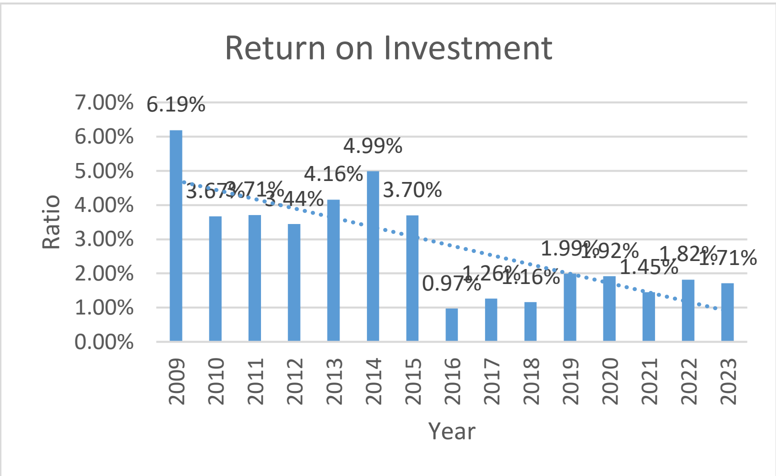


Figure 10: Return on Investment

Return on Assets:

Return on Assets of IDCOL has been decreasing consistently with some sort of fluctuations over the last 15 years. Starting from 2009 at 4.09%, the ROA touched the lowest point of 0.54% in 2016. After 2016, the return on assets of the company rebounded gradually. Since non-performing loan has been increasing every year, it slashes the company's ability to generate return from the assets. The company emphasizes a lot to increase its ROA by adopting new practices which will eventually increase the quality of the assets.

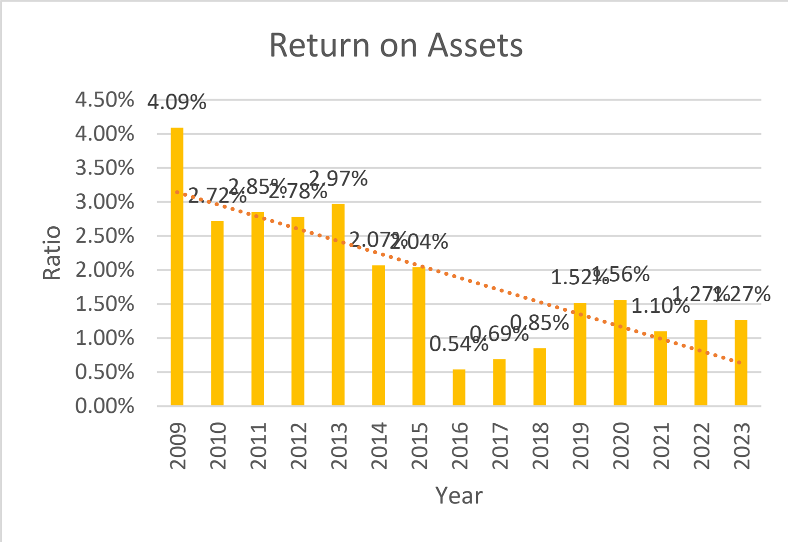


Figure 11: Return on Assets

Return on Equity:

Return on Equity has been decreasing consistently with some sort of fluctuations over the last 15 years. Starting from 2009 at 29.51%, the ROE of IDCOL reached its highest point of 37.07% in 2013. After 2013, the ROE declined gradually. The company recorded its lowest ROE of 6.67% in 2016. Following the register of lowest ROE in 2016, its ROE rebounded from 2017. Over the last 5 years, the ROE is above 10%. The company puts its highest emphasis to elevate its ROE which reflects it equity utilization to generate income.

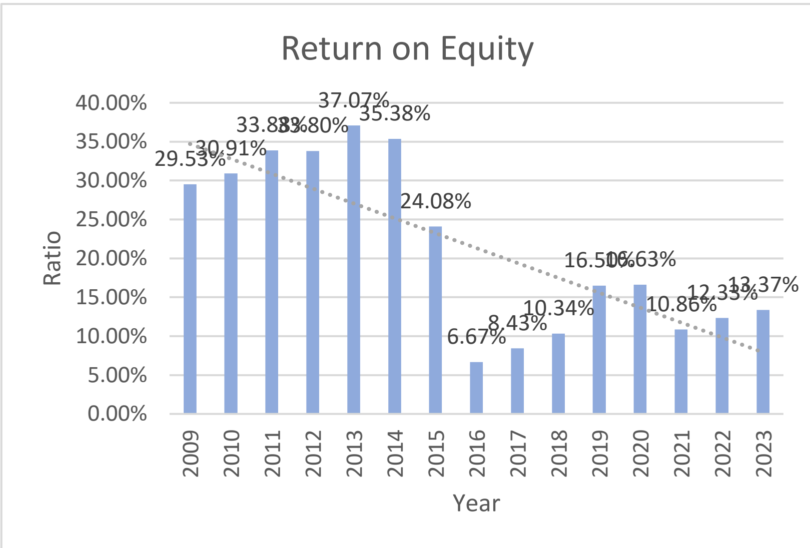


Figure 12: Return on Equity

3.3.4 Assessing the relationship of financial and economic indicators with the performance of IDCOL through regression analysis

Three multiple linear regressions have been conducted to assess multiple scenarios. Firstly, a multiple regression analysis has been done to see the impact of financial indicators on the performance of IDCOL. In this analysis, the independent variables are NPL Ratio, Loan Loss Provision Ratio, Capital Adequacy Ratio, Debt-Equity Ratio and Cost-Income Ratio. Dependent variable is Return on Investment (ROI).

SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.9385
R Square	0.8808
Adjusted R Square	0.8145
Standard Error	0.0068
Observations	15

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	5	0.00306	0.00061219	13.2982	0.000618876
Residual	9	0.00041	4.60355E-05		
Total	14	0.00348			

	Coefficients	*andard Err*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*ower 95.0%*	*Upper 95.0%*
Intercept	0.10801	0.01902	5.677960725	0.0003	0.06498014	0.15105	0.06498	0.151047904
NPL Ratio	-0.19405	0.06922	-2.803379499	0.0206	-0.350636609	-0.03746	-0.35064	-0.037463427
Loan loss provision rati	-0.25336	0.19116	-1.325383563	0.2177	-0.685786783	0.17907	-0.68579	0.179071682
CAR	-0.03953	0.07738	-0.510825756	0.62177	-0.214570152	0.13552	-0.21457	0.135515961
D-E ratio	-0.0039	0.00146	-2.67500955	0.02541	-0.007206215	-0.0006	-0.00721	-0.000602593
Cost-Income ratio	-0.00312	0.00072	-4.311830879	0.00196	-0.004757492	-0.00148	-0.00476	-0.001483317

Figure 13: Regression Analysis 1

Summary of the analysis:

- Multiple R value is 0.9385 which indicates a strong positive correlation between the independent and dependent variables
- R Square value is 0.8808 which reflects that 88.08% of the variation in dependent variable (Return on Investment) can be explained by the independent variables (NPL Ratio, Loan Loss Provision Ratio, Capital Adequacy Ratio, Debt-Equity Ratio and Cost-Income Ratio)
- Significance F value is 0.000618876 which is very low P value, defining that regression model as a whole is statistically significant.

- Significant independent variables are NPL ratio, Debt-Equity Ratio, Cost-Income Ratio since these variables show a negative relationship with the dependent variable. P value for NPL ratio, Debt-Equity Ratio, Cost-Income Ratio are 0.0026, 0.0254 and 0.0019 respectively. So, these variables are statistically significant.

Another multiple regression has been done to see the impact of economic indicators on the performance of IDCOL. Here, the independent variables are GDP Growth Rate, Inflation Rate, Trade-GDP ratio and Currency Growth Rate.

SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.873789619
R Square	0.763508299
Adjusted R Square	0.668911618
Standard Error	0.009065718
Observations	15

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	4	0.002653397	0.000663349	8.071195	0.003563732
Residual	10	0.000821872	8.21872E-05		
Total	14	0.003475269			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.0%*	*Upper 95.0%*
Intercept	0.015612561	0.020817865	0.749959741	0.470555	-0.030772534	0.061997656	-0.030772534	0.061997656
GDP Growth Rate	-0.640294435	0.245689389	-2.606113499	0.026215	-1.187724509	-0.09286436	-1.187724509	-0.09286436
Inflation rate	-0.226607337	0.19086263	-1.187279756	0.262554	-0.651875779	0.198661105	-0.651875779	0.198661105
Trade-GDP Ratio	0.18342843	0.038021496	4.824334948	0.000698	0.098711259	0.268145602	0.098711259	0.268145602
Growth of BDT exchange rate	0.033546843	0.055288799	0.606756592	0.557536	-0.089644278	0.156737965	-0.089644278	0.156737965

Figure 14: Regression Analysis 2

Summary of the analysis:

- Multiple R value is 0.8739 which indicates a strong positive correlation between the independent and dependent variables
- R Square value is 0.763508 which reflects that 76.35% of the variation in dependent variable (Return on Investment) can be explained by the independent variables (GDP Growth Rate, Inflation Rate, Trade-GDP ratio and Growth of BDT Exchange Rate)
- Significance F value is 0.003563732 which is very low P value, defining that regression model as a whole is statistically significant.
- Significant independent variables are GDP growth rate and Trade-GDP ratio since their p values are 0.026 and 0.000698 respectively. So, these variables are statistically significant.

A multiple regression has been conducted to see the combined impact of financial and economic indicators on the performance of IDCOL. Here, the independent variables are NPL

Ratio, Debt-Equity Ratio, Cost-Income Ratio, GDP Growth Rate, Trade-GDP ratio and dependent variable is Return on Investment.

SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.957702042
R Square	0.917193201
Adjusted R Square	0.871189423
Standard Error	0.005654653
Observations	15

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	5	0.003187493	0.000637	19.93734543	0.000126027
Residual	9	0.000287776	3.2E-05		
Total	14	0.003475269			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.0%*	*Upper 95.0%*
Intercept	0.05198009	0.023131252	2.24718	0.05123877	-0.000346437	0.104306617	-0.000346437	0.104306617
NPL Ratio	-0.127512924	0.066628746	-1.91378	0.037927631	-0.27823762	0.023211772	-0.27823762	0.023211772
D-E ratio	-0.004434275	0.001328619	-3.33751	0.008694586	-0.007439819	-0.00142873	-0.007439819	-0.00142873
Cost-Income ratio	-0.001023291	0.001050156	-0.97442	0.355309743	-0.003398908	0.001352327	-0.003398908	0.001352327
GDP Growth Rate	-0.259453826	0.176629852	-1.46891	0.175921671	-0.659018311	0.14011066	-0.659018311	0.14011066
Trade-GDP Ratio	0.131753687	0.049513804	2.660949	0.026005338	0.01974568	0.243761694	0.01974568	0.243761694

Figure 15: Regression Analysis 3

Summary of the analysis:

- Multiple R value is 0.9577 which indicates a strong positive correlation between the independent and dependent variables
- R Square value is 0.9171 which reflects that 91.71% of the variation in dependent variable (Return on Investment) can be explained by the independent variables (NPL Ratio, Debt-Equity Ratio, Cost-Income Ratio, GDP Growth Rate, Trade-GDP ratio)
- Significance F value is 0.0001 which is very low P value, defining that regression model as a whole is statistically significant.
- Significant independent variables are NPL ratio, Debt-Equity Ratio and Trade-GDP ratio as their p values are 0.037, 0.00869 and 0.026 respectively. So, these independent variables are statistically significant.

3.4 Summary and Conclusions

The above-mentioned analysis is to observe the impact of financial and economic indicators on the performance of a financial institution like IDCOL. The financial indicators like NPL ratio, loan loss provision ratio have been showing an upward trend over the last 15 years. As non-performing loan increases, loan provisioning also increases to tackle the shock of the possible losses. Other financial indicators like cost-income ratio, capital adequacy ratio show a mixed trend while debt-equity ratio shows an increasing trend.

Economic indicators like GDP growth rate, inflation rate, trade-GDP ratio show a mixed trend over the last 15 years with some fluctuations. Growth of BDT exchange rate against US dollar shows an upward trend over the last 15 years. Bangladeshi taka depreciates a lot against US dollar over the past 2 years following the incident of Russia-Ukraine War.

Financial performance indicators like ROA, ROI and ROE highlight mixed trend for the last 15 years with a combination of upward and downward trend. The company is trying to recover its non-performing loan to accelerate financial performance.

Three regression analysis have been conducted to observe the impact of financial and economic indicators on the performance of IDCOL. The first regression analysis defines the impact of financial indicators on the performance of IDCOL. In this regression, NPL ratio, Debt-Equity ratio and Cost-Income ratio are statistically significant. It defines that these ratios have significant impact on the Return on Investment (Performance Indicator) of IDCOL. Second regression analysis defines the impact of economic indicators on the performance of IDCOL. It highlights that GDP growth rate and Trade-GDP ratio are statistically significant. It states that these ratios have an impact on the Return on Investment (Performance Indicator) of IDCOL. Third regression analysis defines the impact of financial and economic indicators on the performance of IDCOL. This analysis states that NPL ratio, Debt-Equity ratio and Trade-GDP ratio are statistically significant, indicating that these variables have significant impact on the performance of IDCOL.

3.5 Recommendations

- IDCOL must initiate adequate measures to decrease the amount of non-performing loan
- The company must focus on recovering the loans from the clients who become classified.
- The company must improve ratios like ROA, ROE and ROI which are considered as key performance indicators for a financial institution.
- Although the company conducts rigorous due diligence to evaluate a project, it must find out the gaps in the due diligence which will help it to evaluate a project in a more efficient way.

References:

Amalia, S., & Nugraha, N. M. (2021). The Impact of Financial Ratio Indicators on Banking Profitability in Indonesia. Turkish Journal of Computer and Mathematics Education Vol, 12(8), 580-588. Retrieved from: https://turcomat.org/index.php/turkbilmat/article/view/2839

Bangladesh Bank (n.d.). Homepage. Retrieved from: https://www.bb.org.bd

Infrastructure Development Company Limited. (2023). Annual Report 2023. Retrieved from: https://idcol.org/home/an_report

Infrastructure Development Company Limited. (2022). Annual Report 2022. Retrieved from: https://idcol.org/home/an_report

Infrastructure Development Company Limited. (2022). Annual Report 2021. Retrieved from: https://idcol.org/home/an_report

Infrastructure Development Company Limited. (2020). Annual Report 2020. Retrieved from: https://idcol.org/home/an_report

Infrastructure Development Company Limited. (2019). Annual Report 2019. Retrieved from: https://idcol.org/home/an_report

Infrastructure Development Company Limited. (2018). Annual Report 2018. Retrieved from: https://idcol.org/home/an_report

Infrastructure Development Company Limited. (2017). Annual Report 2017. Retrieved from: https://idcol.org/home/an_report

Infrastructure Development Company Limited. (2016). Annual Report 2016. Retrieved from: https://idcol.org/home/an_report

Infrastructure Development Company Limited. (2015). Annual Report 2015. Retrieved from: https://idcol.org/home/an_report

Infrastructure Development Company Limited. (2014). Annual Report 2014. Retrieved from: https://idcol.org/home/an_report

Infrastructure Development Company Limited. (2013). Annual Report 2013. Retrieved from: https://idcol.org/home/an_report

Infrastructure Development Company Limited. (2012). Annual Report 2012. Retrieved from: https://idcol.org/home/an_report

Infrastructure Development Company Limited. (2011). Annual Report 2011. Retrieved from: https://idcol.org/home/an_report

Infrastructure Development Company Limited. (2010). Annual Report 2010. Retrieved from: https://idcol.org/home/an_report

Infrastructure Development Company Limited. (2009). Annual Report 2009. Retrieved from: https://idcol.org/home/an_report

Trading Economics. (n.d). Homepage. Retrieved from: https://tradingeconomics.com

Terraza, V. (2015). The effect of bank size on risk ratios: Implications of banks' performance. *Procedia Economics and Finance*, *30*, 903-909. Retrieved from: https://www.sciencedirect.com/science/article/pii/S2212567115013404

Zhongming, T., Frimpong, S., & Guoping, D. (2019). Impact of financial risk indicators on banks' financial performance in Ghana. *Business and Economic Research*, *9*(4), 23-52. Retrieved from: https://www.researchgate.net/publication/336280344_Impact_of_Financial_Risk_Indicators_on_Banks'_Financial_Performance_in_Ghana

Appendix:

Financial Indicators					
Year	**NPL Ratio**	**Loan loss provision ratio**	**CAR**	**D-E ratio**	**Cost-Income ratio**
2009	1.16%	0.77%	10.30%	5.89	4.94
2010	1.17%	1.28%	10.19%	9.63	6.08
2011	2.32%	0.77%	10.78%	10.33	6.45
2012	0.81%	0.78%	10.65%	11.24	5.00
2013	0.80%	0.42%	10.75%	11.33	7.35
2014	1.58%	0.30%	11.20%	10.17	4.78
2015	6.22%	0.63%	11.50%	9.86	6.78
2016	8.70%	2.98%	11.89%	10.35	7.04
2017	10.91%	2.99%	11.72%	10.09	7.63
2018	7.15%	1.65%	11.53%	9.93	9.76
2019	4.54%	2.39%	11.06%	9.09	11.82
2020	1.53%	0.98%	15.58%	8.93	14.12
2021	5.74%	1.84%	18.00%	8.11	9.15
2022	10.19%	6.40%	20.76%	7.70	6.47
2023	11.92%	2.55%	19.25%	8.35	7.49

Economic Indicators				
Year	**GDP Growth Rate**	**Inflation rate**	**Trade-GDP Ratio**	**Currency growth rate**
2009	5.05%	5.42%	40.09%	1.25%
2010	5.57%	8.13%	37.80%	2.07%
2011	6.46%	11.40%	47.42%	12.12%
2012	6.52%	6.22%	48.11%	-0.72%
2013	6.01%	7.53%	46.30%	-1.08%
2014	6.06%	6.99%	44.51%	-0.55%
2015	6.55%	6.19%	42.09%	0.26%
2016	7.10%	5.51%	31.33%	-2.65%
2017	6.59%	5.70%	30.00%	7.58%
2018	7.32%	5.54%	32.51%	0.17%
2019	7.88%	5.59%	31.58%	5.27%
2020	3.45%	5.69%	26.27%	-0.56%
2021	6.94%	5.50%	27.72%	1.06%

2022	7.10%	7.70%	33.78%	19.15%
2023	6.03%	9.88%	30.98%	6.56%

Financial Performance Indicators			
Year	**ROI**	**ROA**	**ROE**
2009	6.19%	4.09%	29.53%
2010	3.67%	2.72%	30.91%
2011	3.71%	2.85%	33.88%
2012	3.44%	2.78%	33.80%
2013	4.16%	2.97%	37.07%
2014	4.99%	2.07%	35.38%
2015	3.70%	2.04%	24.08%
2016	0.97%	0.54%	6.67%
2017	1.26%	0.69%	8.43%
2018	1.16%	0.85%	10.34%
2019	1.99%	1.52%	16.50%
2020	1.92%	1.56%	16.63%
2021	1.45%	1.10%	10.86%
2022	1.82%	1.27%	12.33%
2023	1.71%	1.27%	13.37%