Thesis Report
on
The Effect of Non-Performing Loans under Non-Bank Financial Institutions in Bangladesh

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on
The Effect of Non-Performing Loans under Non-Bank Financial Institutions in Bangladesh

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Letter of Transmittal

April 28th, 2025

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Subject**:** Submission of thesis report on **"The Effect of Non-Performing Loans under Non-Bank Financial Institutions in Bangladesh".**

Dear Sir,

With due respect and honor, I thereby submit my thesis report titled with **"The Effect of Non-Performing Loans under Non-Bank Financial Institutions in Bangladesh"** to fulfill the requirement for completing my EMBA program. I have endeavored to make this report as analytical, exhaustive, instructive, impartial, and trustworthy as possible. I've made every effort to make it readable for the audience. Nonetheless, being a beginner in this field of study with little knowledge and experience, there may be mistakes and omissions. I am extremely grateful to you for providing the correct guidelines for completing this paper.

I hope you will be gracious enough to accept my errors.

Sincerely yours,

…….

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Certificate of Supervisor

I hereby confirm that the thesis report titled **"The Effect of Non-Performing Loans under Non-Bank Financial Institutions in Bangladesh"** has been created in fulfillment of the EMBA program requirements at the Department of Business Administration, Sonargaon University (SU). The report was conducted by MD SAYFUL ISLAM with ID EMBA2401031030 under my guidance. I assure you that the report and its contents will not be utilized for any other intentions.

_____

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Declaration of the Student

I, Md Sayful Islam, an EMBA student of the Business Administration Department of Sonargaon University, do hereby declare that this report on "**The Effect of Non-Performing Loans under Non-Bank Financial Institutions in Bangladesh**" is a thesis report work done by me in partial fulfillment of the requirements for the degree of Executive Master of Business Administration (EMBA).

This report has been prepared based on my own findings, data collections and research accomplished. I am confirming that nothing has been replicated from any other publications. This report has not been presented yet, and has not been published, for any degree or any other academic purpose.

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Executive Summary

Bangladesh is a developing economy of South Asia, it continued with positive growth rate in those recent years. Country's financial system is largely based on the financial system. Non-Bank Financial Institutions came in operation in areas where banks failed to operate prudently. Though both banks and NBFIs (Non-Bank Financial Institutions') operations are very close, there is substantial difference in risk factors for them. Banks usually lend for short-term in traditional manner, where NBFIs finance long-term loan with innovative products. Though lots of studies have been carried out to analyze NPLs (Non-performing loans) of banking system, this study focuses on impacts on profitability.

Non-performing loans are those financial assets which do not generate any interest or principal repayment for the lending institutions. NPL has been an important issue for financial institutions and regulators. NPL is one of the significant issues of banking and non-banking financial sector in Bangladesh for most recent couple of decades. These loans negatively impact on a firm's profitability as loss of interest income. Failure to generate earnings from loan and recovering principal poses threat to firm's long term sustainability. These loans also impact on the level of private investment by increasing required provision and loss accumulation in the financial system.

NPL has been an important issue for financial institutions and regulators. The economic and financial costs of these non-performing loans are significant. These loans negatively impact on a firm's profitability as loss of interest income. Failure to generate earnings from loan and recovering principal poses threat to firm's long term sustainability. These loans also impact on the level of private investment by increasing required provision and loss accumulation in the financial system. These loans also affect private consumption by reducing loan disbursement also known as "credit crunch" caused by erosion of firm's asset and equity of NPL in NBFIs.

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List of Acronyms

NPLs = Non-Performing Loans

FIs = Financial Institutions

NBFIs = Non-Bank Financial Institutions

BB = Bangladesh Bank

ICB = Investment Corporation of Bangladesh

ACSPD = Agricultural Credit and Special Program Department

SMA = Special Mention Account

CIB = Credit Information Bureau

DSE = Dhaka Stock Exchange

CLs = Classified Loans

IM = Interest Margin

LDR = Loan Deposit Ratio

NPM = Net Profit Margin

NIM = Net Interest Margin

LC = Letter of Credit

Chapter One

Introduction

1.1 Background

Non-performing loans are those financial assets which do not generate any interest or principal repayment for the lending institutions. The responsibility cannot be solely put on lending decisions. Some loans may have all qualities of good loan in initiation, but over the period turn into bad ones. When a bank fails to collect the interest payments or the principal amount of loan then that loans is considered as NPLs

Bangladesh is a developing economy of South Asia, it continued with positive growth rate in those recent years. Country's financial system is largely based on the financial system. Non-Bank Financial Institutions came in operation in areas where banks failed to operate prudently. Though both banks and NBFIs operations are very close, there is substantial difference in risk factors for them. Banks usually lend for short-term in traditional manner, where NBFIs finance long-term loan with innovative products. Though lots of studies have been carried out to analyze NPLs of banking system, this study focuses on impacts on profitability.

NPL has been an important issue for financial institutions and regulators. The economic and financial costs of these non-performing loans are significant. These loans negatively impact on a firm's profitability as loss of interest income. Failure to generate earnings from loan and recovering principal poses threat to firm's long term sustainability. These loans also impact on the level of private investment by increasing required provision and loss accumulation in the financial system. These loans also affect private consumption by reducing loan disbursement also known as "credit crunch" caused by erosion of firm's asset and equity of NPL in NBFIs.

1.2 Non-Performing Loans (NPLs)

A classified loan or (Non-Performing Loan) is a loan that is in danger of default. Classified loans have unpaid interest and principal outstanding, but don't necessarily need to be past due. As such, it is unclear whether the bank or non-bank financial institutions will be able to recoup the loan proceeds from the borrower.

In other words, classified loans are any loans deemed by the lender to be in danger of default of both principal and interest. Even though they may be risky, classified loans aren't always in arrears—they're just in danger of default. This means they don't have to be past due. Financial institutions normally record these loans on their books as adversely classified assets.

1.3 Non-performing Loans (NPLs) in Bangladesh

The issue of non-performing loans in Bangladesh is not a new phenomenon. In fact, the seeds were cultivated during the early stage of the liberation period (1972-1981), by the government's "expansion of credit" policies on the one hand and a feeble in the banking infrastructure combined with an unskilled work force on the other. The expansion of credit policy during the early stage of liberation, which was directed to disbursement of credit on relatively easier terms, did actually expand credit in the economy on nominal terms.

However, it also generated a large number of willful defaulters in the background who, later on, diminished the financial health of FIs through the "sick industry syndrome". Despite the liberalizing and privatizing of the banking and non-banking sectors in the 1980s with a view to increasing efficiency and competition, the robustness of the credit environment deteriorated further because of the lack of effective lenders' recourse on borrowers. NPL is one of the burning problems of the banking and non-banking sector in Bangladesh for last two decades.

The international standard of NPL is 2 percent or below but in our country it is much higher. The NPL percentages in Bangladesh are 5 to 6 times higher than the standard which is alarming for the sector. The NPL data is updated and reviewed quarterly by Bangladesh Bank. According to Bangladesh Bank data, NPL ratio stood 9.31 percent in December 2017, 10.67 percent in September 2017, 10.13 percent in June 2017 and 10.53 percent in March 2017. In 2016, the NPL ratio was 9.23 percent in December, 10.34 percent in September, 10.06 percent in June and 9.92 percent in March. The yearend NPL ratio was 8.79 percent in 2015. It is observed that the NPL ratio is up growing by the passing of time.

NPL is one of the significant issues of banking and non-banking financial sector in Bangladesh for most recent couple of decades. In spite of close observations by the Bangladesh Bank, NPLs hopped by over 20% or BDT 150.37 billion to the end of June this year from December a year ago. The volume of NPLs rose to BDT 893.40 billion as of June 30, 2018 from BDT 743.03 billion as of December 31, 2017. The offer of characterized credits achieved 10.41% of the aggregate remarkable advances amid the period under survey than that of 9.31% a half year back.

1.4 Basis for Loan Classifications for Banks and NBFIs

Bangladesh Bank, BCD Circular No.34/1989 introduced a new system covering loan classification, the suspension of interest due, and the making of provisions against potential loan loss for all scheduled banks and none bank financial institutions in Bangladesh. With a view to further strengthening credit discipline and bring classification and provisioning regulation in line with international standard, a phase wise program for loan classification and provisioning was undertaken by Bangladesh Bank through BCD Circular No. 20/1994. Afterwards, a comprehensive circular, BRPD Circular No. 16/1998 was issued with major amendments in BCD Circular No. 34/1989 and 20/1994 with a view to achieving a more specified & simplified system of loan classification and provisioning.

Categories of Loans

All loans and advances will be grouped into four (4) categories for the purpose of classification, namely (a) Continuous Loan (b) Demand Loan (c) Fixed Term Loan & (d) Short-term Agricultural & Micro Credit.

(a) Continuous Loan: - The loan Accounts in which transactions may be made within certain limit and have an expiry date for full adjustment will be treated as Continuous Loans. Examples are: CC, OD etc.

(b) Demand Loan: The loans that become repayable on demand by the bank will be treated as Demand Loans. If any contingent or any other liabilities are turned to forced loans (i.e. without any prior approval as regular loan) those too will be treated as Demand Loans. Such as: Forced LIM, PAD, FBP, and IBP etc.

(c) Fixed Term Loan: The loans, which are repayable within a specific time period under a specific repayment schedule will be treated as Fixed Term Loans.

Short-term Agricultural & Micro Credit: Short-term Agricultural Credit will include the short-term credits as listed under the Annual Credit Program issued by the Agricultural Credit and Special Program Department (ACSPD) of Bangladesh Bank. Credits in the agricultural sector repayable within 12(twelve) months will also be included herein.

Short-term Micro-Credit will include any micro-credits not exceeding Tk.25,000/= (twenty five thousand) and repayable within 12(twelve) months, be those termed in any names such as Non-agricultural credit, Self-reliant Credit, Weaver's Credit or Bank's individual project credit.

(A) Objective Criteria

1. Past Due/Over Due(i) Any Continuous Loan if not repaid/renewed within the fixed expiry date for repayment will be treated as past due/overdue from the following day of the expiry date. (ii) Any Demand Loan if not repaid/rescheduled within the fixed expiry date for repayment will be treated as past due/overdue from the following day of the expiry date. (iii) In case of any installment(s) or part of installment(s) of a Fixed Term Loan(not over five years) is not repaid within the fixed expiry date, the amount of unpaid installment(s) will be treated as past due/overdue from the following day of the expiry date. (iv) In case of any installment(s) or part of installment(s) of a Fixed Term Loan(over five years)is not repaid within the fixed expiry date, the amount of unpaid installment(s) will be treated as past due/overdue after six months of the expiry date. (v) The Short-term Agricultural and Micro-Credit if not repaid within the fixed expiry date for repayment will be considered past due/overdue after six months of the expiry date.
2. All unclassified loans other than Special Mention Account (SMA) will be treated as **Standard.**
3. A Continuous credit, Demand loan or a Term Loan which will remain overdue for a period of

90 days or more, will be put into the "Special Mention Account(SMA)" and interest accrued on such loan will be credited to Interest Suspense Account, instead of crediting the same to Income Account. This will help banks to look at accounts with potential problems in a focused manner and it will capture early warning signals for accounts showing first sign of weakness. Loans in the **"Special Mention Account (SMA)"** will have to be reported to the Credit Information Bureau (CIB) of Bangladesh Bank. However, it is reiterated that loans in the "Special Mention Account" will not be treated as defaulted loan for the purpose of section 27Ka (3) of the Bank Company Act, 1991.

4. Any continuous loan will be classified as: ¾ **'Sub-standard'** if it is past due/overdue for 6 months or beyond but less than 9 months. ¾ `**Doubtful'** if it is past due/overdue for 9 months or beyond but less than 12 months ¾ `**Bad/Loss'** if it is past due/overdue for 12 months or beyond.
5. Any Demand Loan will be classified as: ¾ **'Sub-standard'** if it remains past due/overdue for 6 months or beyond but not over 9 months from the date of claim by the bank or from the date of creation of forced loan. ¾ `**Doubtful'** if it remains past due/overdue for 9 months or beyond but not over 12 months from the date of claim by the bank or from the date of creation of forced loan. ¾ `**Bad/Loss'** if it remains past due/overdue for 12 months or beyond from the date of claim by the bank or from the date of creation of forced loan.
6. In case of any installment(s) or part of installment(s) of a Fixed Term Loan is not repaid within the due date, the amount of unpaid installment(s) will be termed as `**defaulted installment'**.
   (6.1) In case of Fixed Term Loans, which are repayable within maximum five years of time: - ¾ If the amount of 'defaulted installment' is equal to or more than the amount of installment(s) due within 6 (six) months, the entire loan will be classified as **''Sub-standard''**. ¾ If the amount of 'defaulted installment' is equal to or more than the amount of installment(s) due within 12 (twelve) months, the entire loan will be classified as **''Doubtful''**. ¾ If the amount of 'defaulted installment' is equal to or more than the amount of installment(s) due within 18 (eighteen) months, the entire loan will be classified as **''Bad/Loss''.**
   (6.2) In case of Fixed Term Loans, which are repayable in more than five years of time: - ¾ If the amount of 'defaulted installment' is equal to or more than the amount of installment(s) due within 12 (twelve) months, the entire loan will be classified as **''Sub-standard''**. ¾ If the amount of 'defaulted installment' is equal to or more than the amount of installment(s) due within 18 (eighteen) months, the entire loan will be classified as **''Doubtful''**. ¾ If the amount of 'defaulted installment' is equal to or more than the amount of installment(s) due within 24 (twenty four) months, the entire loan will be classified as **''Bad/Loss''**.

7. The Short-term Agricultural and Micro-Credit will be considered irregular if not repaid within the due date as stipulated in the loan agreement. If the said irregular status continues, the credit will be classified as **'Substandard '** after a period of 12 months, as **'Doubtful'** after a period of 36 months and as **'Bad/Loss'** after a period of 60 months from the stipulated due date as per loan agreement.

Table: 1 Classification of Default Loan:

Loans	Duration of Overdue	Required Provision (% of outstanding loan)
Unclassified	Less than 6 months	1
Substandard	6 months< 9 months	20
Doubtful	9 months < 1 year	50
Bad	1 year or more	100

(B). Qualitative Judgment

If any uncertainty or doubt arises in respect of recovery of any Continuous Loan, Demand Loan or Fixed Term Loan, the same will have to be classified on the basis of qualitative judgment be it classifiable or not on the basis of objective criteria. If any situational changes occur in the stipulations in terms of which the loan was extended or if the capital of the borrower is impaired due to adverse conditions or if the value of the securities decreases or if the recovery of the loan becomes uncertain due to any other unfavorable situation, the loan will have to be classified on the basis of qualitative judgment. Besides, if any loan is illogically or repeatedly re-scheduled or the norms of re-scheduling are violated or instances of (propensity to) frequently exceeding the loan-limit are noticed or legal action is lodged for recovery of the loan or the loan is extended without the approval of the competent authority, it will have to be classified on the basis of qualitative judgment. Despite the probability of any loan being affected due to the reasons stated above or for any other reasons, if there exists any hope for change of the existing condition by resorting to proper steps, the loan, on the basis of qualitative judgment, will be classified as **'Sub- standard** '. But even if after resorting to proper steps, there exists no certainty of total recovery of the loan, it will be classified as **' Doubtful** ' and even after exerting the all-out effort, there exists no chance of recovery, it will be classified as **' Bad/Loss** ' on the basis of qualitative Judgment. The concerned financial institution will classify on the basis of qualitative Judgment and can declassify the loans

if qualitative improvement does occur.

Maintenance of provision:

(a) Banks will be required to maintain General Provision in the following way :

1) @ 1% against all unclassified loans (other than loans under Small Enterprise and Consumer Financing and Special Mention Account.)

2) @ 2% on the unclassified amount for Small Enterprise Financing.

3) @ 5% on the unclassified amount for Consumer Financing whereas it has to be maintained @ 2% on the unclassified amount for (i) Housing Finance and (ii)Loans for Professionals to set up business under Consumer Financing Scheme.

4) @ 5% on the outstanding amount of loans kept in the 'Special Mention Account' after netting off the amount of Interest Suspense.

(b) (i) Banks will maintain provision at the following rates in respect of classified Continuous, Demand and Fixed Term Loans:

(1) Sub-standard 20% (2) Doubtful 50% (3) Bad/Loss 100%

(ii) Provision in respect of Short-term Agricultural and Micro-Credits is to be maintained at the following rates:

(1) All credits except 'Bad/Loss' (i.e. 'Doubtful', 'Sub-standard', irregular and regular credit accounts) 5% (2) 'Bad/Loss': 100%

1.5 Overview of Non-Bank Financial Institutions (NBFIs) in Bangladesh

Initially, NBFIs were incorporated in Bangladesh under the Companies Act, 1913 and were regulated by the provision relating to Non-Banking Institutions as contained in Chapter V of the Bangladesh Bank Order, 1972. But this regulatory framework was not adequate and NBFIs had the scope of carrying out their business in the line of banking. Later, Bangladesh Bank promulgated an order titled ‘Non-Banking Financial Institutions Order, 1989’ to promote better regulation and also to remove the ambiguity relating to the permissible areas of operation of NBFIs. But the order did not cover the whole range of NBFI activities. It also did not mention anything about the statutory liquidity requirement to be maintained with the central bank. To remove the regulatory deficiency and also to define a wide range of activities to be covered by NBFIs, a new act titled ‘Financial Institution Act, 1993’ was enacted in 1993 (Barai et al. 1999). Industrial Promotion and Development Company (IPDC) was the first private sector NBFIs in Bangladesh, which started its operation in 1981. Since then the number has been increasing and in December 2006 it reached 29 of these, one is government owned, 15 are local (private) and the other 13 are established under joint venture with foreign participation

1.6 Products and Services Offered by NBFIs

Non-Bank Financial Institutions play a key role in fulfilling the gap of financial services that are not generally provided by the banking sector. The competition among NBFIs is increasing over the years, which is forcing them to diversify to a wider range of products and services and to provide innovative investment solutions. NBFIs appear to offer flexible options and highly competitive products to help customers meet their operational and financial goals. The table below provides a summary of the product range offered by existing NBFIs of Bangladesh.

Table: 2 Products and Services offered by Non-Bank Financial Institutions:

Type of Activity	Key Features	Target Market
(i) Lease Financing	Provide a long-term solution that allows customers to free up working capital	Corporate, SMEs, Individual business enterprises.
(a)Finance/Capital Lease		
(b) Operational Lease	An operational lease entails the client renting an asset over a time period that is substantially less than the asset's economic life. It offers short-term flexibility, which may allow the customer to take advantage of off-balance sheet accounting treatment.	Corporate, SMEs, individual business enterprises.
(c) Hire Purchase	A hire purchase is an alternative to a lending transaction for the equipment purchase. It is usually employed for retail or individual financing of smaller items, such as consumer products. However, hire purchase option is also suitable for business houses depending on tax practices.	Clients that have an established credit history with the institution can manage the down payment and assume a stake in the leasing agreement.
(d) Leveraged Leases	Leases generally for large transactions involving three parties: a lessee, a lessor and a funding source. These leases infuse third-party non-recourse debt underwritten by the customer's ability to raise capital in the public	Mostly corporate houses

	and private capital markets for a significant portion of the cost	
(e) Synthetic Leases	Synthetic lease structure is generally provided for property that retains value over an extended period of time such as aircraft, railroad rolling stock, manufacturing equipment and certain types of real estate. Ideal for customers looking to generate liquidity from their existing equipment and reinvest the proceeds back into the business.	Mostly corporate houses
(f) Sale/Leasebacks	House loan and real estate financing is extended for purchase of apartment and house, construction of residential house, purchase of chamber and office space for professionals, purchase of office space and display center, purchase and construction of commercial building, real estate developer for construction of apartment project. Mostly mid to long term in nature.	Corporate, SMEs, individual business enterprises Individuals, Professionals, & Corporate Bodies
(g) Home loan and Real Estate Financing		

(ii) Short Term Loan (a) Factoring of Accounts Receivables (b) Work Order Financing	Financing against invoices raised by the supplier after making the delivery successfully. Major Features are Revolving Short Term Facility, Permanent Assignment of Payment, Financing against invoices, Post-delivery Financing Finance against the assignment of bill arising out of work orders on a revolving basis. The company shall take assignment of suitable work orders and / or invoices and finance the client against those.	Small and medium size companies having regular supplies to corporate bodies Medium and large clients with continuous flow of work orders from customers
(iii) Corporate Finance (a) Bridge Finance (b) Syndication of large loan	Bridge Finance is a kind of Short Term Finance extended in anticipation of immediate long term financing such as public issue, private placement, loan syndication, lease syndication, loan, lease & debenture Making available a large financing for a corporate client. Arrange syndicated financing in the mode of loan, lease, equity, working capital, or any combination thereof. Particularly useful for large projects requiring large scale investment and no	Company going for an IPO or expecting to avail a long term loan or Working Capital within one year or so. Financing new large project; Financing BMRE (Balancing, Modernization, Replacement and

(c) Merger and Acquisition	single financier wants to take the whole risk. Example: Greenfield project. Help find appropriate organization for best possible synergy, conduct valuation of companies and select suitable merger and acquisition methods, negotiate and execute deal beneficial for all the parties involved.	Expansion); Refinancing a large project. Medium and large corporate bodies

1.7 Existing Non-Banking Financial Institutions (NBFIs) in Bangladesh

Total 33(Thirty Three) Non-Bank Financial Institutions (FIs) are operating in Bangladesh, out of 2(Two) are fully Government owned, 16 are private domestic and 15 are joint venture. FIs are regulated under Financial Institution Act, 1993 and controlled by Bangladesh Bank. FIs conduct their business operations with diversified financing modes such as syndicated financing, bridge financing, private placement of equity etc. FIs cannot pro, pay orders or demand drafts, receive demand deposits or cannot be involved in foreign exchange financing. Out of total 33 Financial Institutions in Bangladesh, the following 23 FIs are listed in Dhaka Stock Exchange:

BAYLEASING (Bay Leasing & Investment Limited)

I. BDFINANCE (Bangladesh Finance and Investment Co. Ltd)
II. BIFC (Bangladesh Industrial Fin. Co. Ltd.)
III. DBH (Delta Brace Housing Finance Corp. Ltd.)
IV. FAREASTFIN (Fareast Finance & Investment Limited)
V. FASFIN (FAS Finance & Investment Limited
VI. FIRSTFIN (First Finance Limited
VII. GSPFINANCE (GSP Finance Company Bangladesh Limited)

VIII. ICB (Investment Corporation of Bangladesh
IX. IDLC (IDLC Finance Ltd.)
X. ILFSL (International Leasing & Financial Services Ltd.)
XI. IPDC (IPDC Finance Limited)
XII. ISLAMICFIN (Islamic Finance & Investment Ltd.)
XIII. LANKABAFIN (Lanka Bangla Finance Ltd.)15) MIDASFIN (MIDAS Financing Ltd.)
XIV. NHFIL (National Housing Fin. and Inv. Ltd.)
XV. PHOENIXFIN (Phoenix Finance and Investments Ltd.)
XVI. PLFSL (Peoples Leasing and Fin. Services Ltd.)
XVII. PREMIERLEA (Premier Leasing & Finance Limited)
XVIII. PRIMEFIN (Prime Finance & Investment Ltd.)
XIX. UNIONCAP (Union Capital Limited)
XX. UNITEDFIN (United Finance Limited)
XXI. UTTARAFIN (Uttara Finance and Investments Limited)

1.8 Research Questions

This study will explore the following research questions:

What is the relationship between non-performing loans and profitability in non-bank financial institutions (NBFs) in Bangladesh?

What are the true impacts of non-performing loans on profitability?

What are the acute reasons and possible remedies for non-performing loans over the years in non-bank financial institutions?

1.9 Research Objectives

The primary objective of the study is to find out the effects of NPLs on profitability of listed Non-Bank Financial Institutions listed in Dhaka Stock Exchange (DSE). The secondary objectives with this study are as follows:

a) To identify the current situation of profitability of listed Non-Bank Financial Institutions listed in Dhaka Stock Exchange for the year of 2014 to 2018.

b) To explore the significance of relationships between the variables related to Non-Performing Loans (NPLs) & Profitability.

c) To identify the contemporary reasons for non-performing loans of Non-Bank Financial Institutions.

d) To suggest a set of remedial measures through logical arguments.

1.10 Limitations of the study

Although efforts are given to make this report as significant as possible, nevertheless, this report is not certainly free from missteps. The following limitations have been identified.

Required all secondary data are not available for the periods of all companies that could make the report more accuracy.

- Data regarding classified loans used in this report taken from financial statements may not actual or exhibits understated that can cause inaccuracy in the report.
- There is need to make some assumptions because of unavailability of information.
- There is lack of in-depth knowledge of using analytical tools (Multiple Regression Analysis, correlation Matrix, Multicollinearity test and Descriptive Statistics.
- There is insufficient time for me to gather knowledge and to make the study complete and fruitful one.

1.11 Chapter Summary

The chapter has introduced the study. The chapter has presented the background of the study and stated the problem that has inspired the study. The chapter has also highlighted the objectives of the study and the research questions that guided the study. Chapter 1 has also provide an overview of non-bank financial institutions in Bangladesh and product and services they deliver.

Chapter Two

Literature Review

2.1 Theoretical Prospectus

The financial system in Bangladesh is depending on the liquidity, profitability and performance of the banks and non-bank financial institutions. But the situation created by the FIs lending decision which is very important issue for the FIs because it determine the future profitability and performance of the FIs after providing loans to the customer where a portion goes into bad debt. Generally, the bad debt called as a default in different cases. The issue of non- performing loans (NPLs) has gained increasing attentions in the last few decades. Amount of bad loans are alarmingly increasing is not only the developing and under developed countries but also in developed countries.

Abdul Fatao (2007) the author examined that Macroeconomic and Bank specific determinants of non-performing loans in the commercial banking industry of Ghana. He suggests that non-performing loans are associated with bad debts and may justify the establishment of provisions which would reduce the balance of loans on the balance sheet. The author showed that ERA, ROE, Inflation and real effective exchange rate had statistically significant effects on the level of NPLs in the banking sector of Ghana. The author suggested that the bank manager should emphasize the management of current assets loans than fixed assets I order to reduce the level of non-performing loans. **GAITHO EDNA WANGUI (2010)** examined the causes of non-performing loans of commercial banks in Kenya and his goal was to investigate the main causes of bad loans in Kenyan banks. The author conducted his study through descriptive study to explain reasons. The author found that the main factors contributing non-performing loans were the national downturn which led to depression for business in general, insider lending and owner concentration. The author finally suggested that loan officials carefully grant loans by basing their consideration on loan analysis principle. **Abdelkader Boudriga (2010)** analyzed the determinants of non-performing loans (NPLs) and the potential impact of both business and institutional environment on credit exposure of banks credit quality. The author found that the coefficient of legal rights is negative and statistically significant. The suggested that collateral and bankruptcy laws provide higher protection borrowers and lenders. The recommended a better control of production, a sound regulatory quality, a better enforcement of law play an important role in reducing NPLs in the MENA countries. **Raphael Espinoza and Ananthakrishnan Prasad (2010)** focused on the relationship between macroeconomic variables and NPLs (credit risk) in GCC banking system. The author investigated the feedback effect of increasing NPLs on growth. According to panel VAR, he showed that there could be a strong, albeit short-lived feedback effect from losses in banks' balance sheets on economic activity, with a semi-elasticity of around 0.4. The author

examined that both macro-factors and bank-specific characteristics determine the level of non-performing loans. The author suggested that strong-evidence of a significant inverse relationship between real GDP and non-performing loans

Analyzing 22 advanced economies during the period 1996-2008 J. Glen and C. Mondragón-Vélez (2011) showed that, the developments of loan loss provisions are driven mainly by the business cycle measured by real GDP growth and lending rate. Using a vector auto-regression model to analyze data from 1982 to 1996 Keeton (1999) showed rapid credit growth associated with lower credit standards, contributed to higher loan losses in the US.

Haneef & Riaz (2012) recommended that non-performing loans are increasing due to lack of risk management, which threatens the profitability of banks. This study provides suggestion that banking sector can avoid their non-performing loans by adopting methods suggested by the central bank of perspective country. **Phides Selestine Mchopa (2013)** aimed at assessing the causes of non-performing loans in Tanzania commercial banks. The author explained that causes of non-performing loans related to customer operations were related to moral hazard, inadequate business, financial, marketing, entrepreneurial and managerial skills, fund diversion and multiple loans. The author stated that non-performing loans are caused by both factors related to bank operations and factors related to customers operations. The author suggested that bank should have adequate and reliable information about clients, good credit policy, and credit appraisals and train their customer on business, management skills **Nir Klien (2013)** investigated the non-performing loans in central, Eastern, southeastern Europe and found that the level of NPLs can be attributed to both macroeconomic conditions and bank's specific factors. The author found that an increase in NPL has a significant impact on credit, real GDP growth, unemployment, and inflation in the period ahead. The author suggested that banks avoid excessive lending, maintaining high credit standards and limiting foreign currency lending to unhedged borrowers. **NASIEKU NKURRUNAH (2014)** investigated the factors that affect non-performing loans at the commercial banks of Africa. The author conducted the study by adopting partly descriptive and a partly correlational research design. The author found 41.70% respondents answered in favor of the economic condition while 14.60% who felt that GDP was the major factor affecting NPLs. The author suggested that banks in Kenya must endeavor to reduce the banks' specific factors that precipitate high level of non-performing loans (NPLs)

APEL MAHMOOD RIFAT (2016) tried to analyze the determinants of non-performing loans in non-bank financial institution sector in Bangladesh. This paper tested both macroeconomic and firm specific variables to determine the impacts on classified loans. He found on his study that firm specific factors were more significant for non-performing loans of the NBFIs. The main

objective of his study was to find out different factors which have more impacts on NBFIs' non-performing loans. The author suggested that non-performing loan can be explained by firm specific variables such as loan growth and loan to asset ratio. The author suggested that expansionary monetary policy should be implemented to reduce relative size of bad loans.

2.2 Chapter Summary

Chapter two summarizes the results of different individual study regarding non-performing loans such as GAITHO EDNA WANGUI found that the main factors contributing non-performing loans were the national downturn which led to depression for business in general, insider lending and owner concentration. ABDUL FATAO showed that ERA, ROE, Inflation and real effective exchange rate had statistically significant effects on the level of NPLs in the banking sector of Ghana and he guided that the bank manager should emphasize the management of current assets loans than fixed assets. PHIDE SELESTINE MCHOPA stated that non-performing loans are caused by both factors related to bank operations and factors related to customers operations. Abdelkader Boudriga suggested that collateral and bankruptcy laws provide higher protection borrowers and lenders. He recommended a better control of production, a sound regulatory quality, a better enforcement of law play an important role in reducing NPLs in the MENA countries. Haneef & Riaz recommended that non-performing loans are increasing due to lack of risk management, which threatens the profitability of banks. APEL MAHMOOD RIFAT found on his study that firm specific factors were more significant for non-performing loan of the NBFIs and he suggested that expansionary monetary policy should be implemented to reduce relative size of bad loans.

Chapter Three

Research Methodology

3.1 Sources of Data

Secondary panel data have been used for this study. All secondary panel data have been collected directly from Dhaka Stock Exchange (DSE) Website *(www.dse.bd)* of respective FI's annual consolidated financial statements from the year 2014 to 2018. Data are considered in terms of millions in amount.

For the analysis, 23 listed Non-Bank Financial Institutions (NBFIs) i.e BAYLEASING (Bay Leasing & Investment Limited), BDFINANCE (Bangladesh Finance and Investment Co. Ltd), BIFC (Bangladesh Industrial Fin. Co. Ltd.), DBH (Delta Brac Housing Finance Corp. Ltd.), FAREASTFIN (Fareast Finance & Investment Limited), FASFIN (FAS Finance & Investment Limited, FIRSTFIN (First Finance Limited, GSPFINANCE (GSP Finance Company Bangladesh Limited), ICB (Investment Corporation of Bangladesh, IDLC (IDLC Finance Ltd.), ILFSL (International Leasing & Financial Services Ltd.), IPDC (IPDC Finance Limited), ISLAMICFIN (Islamic Finance & Investment Ltd.), LANKABAFIN (Lanka Bangla Finance Ltd.), MIDASFIN (MIDAS Financing Ltd.), NHFIL (National Housing Fin. and Inv. Ltd.), PHOENIXFIN (Phoenix Finance and Investments Ltd.), PLFSL (Peoples Leasing and Fin. Services Ltd.), PREMIERLEA (Premier Leasing & Finance Limited), PRIMEFIN (Prime Finance & Investment Ltd.), UNIONCAP (Union Capital Limited), UNITEDFIN (United Finance Limited), UTTARAFIN (Uttara Finance and Investments Limited).

3.2 Hypotheses of the Study

In this study, there is one dependent variable such as Net Profit Margin (NPM) and three independent variables such as Classified Loans (CLs), Interest Margin (IM) and Loan Deposit Ratio (LDR). The description of the following variables are given below:

(a) Classified Loans

A classified loan (CLs) is a loan that is in danger of default As such, it is unclear whether the institutions will be able to recoup the loan proceeds from the borrower. Classified loan also termed as non-interest bearing asset because all interest incomes from this type of loans are postponed that can't contribute firm's net profit.

(b) Interest Margin

Net interest margin (NIM) is a measure of the difference between the interest income generated by banks or other financial institutions and the amount of interest paid out to their lenders relative to the amount of their (interest-earning) assets.

(c) Loan Deposit Ratio

A ratio that is used in determining the amount of loans that a NBFI has out versus the amount of current deposits on hand at that same time. This ratio is determined by dividing the loan amounts by its total amount of deposits.

(d) Net Profit Margin

Net profit margin is the percentage of revenue left after all expenses have been deducted from total revenues. The measurement reveals the amount of profit that FIs can extract from its total revenue. So, there is an inverse relationship between Classified Loans (CLs) and Net Profit Margin (NPM). As the amount of classified loans increases abruptly, the net profit margin will decreases because no interest incomes will be generated from this bad loans. A firm's profit margin mainly depends on interest earnings from outstanding loans. Since classified loans do not generate interest income it undoubtedly erodes firm's overall profit margin.

So this non-performing loans (classified loans or bad loans) adversely impact on firm's profitability.

Ho: There is no significant impact of Non-Performing Loans (NPLs) on Profitability (Net Profit Margin) of listed Non-Bank Financial Institutions in Dhaka Stock Exchange.

H1: There is a significant impact of Non-Performing Loans (NPLs) on Profitability (Net Profit Margin) of listed Non-Bank Financial Institutions in Dhaka Stock Exchange.

3.3 Tools and Techniques

Hypotheses have been tested with Descriptive Statistics, Correlation Matrix, and Regression Analysis, Multicollinearity Test by using MS Excel software.

(a) Descriptive Statistics

A descriptive statistics is the process of using and analyzing those statistics which describe, show or summarize data in a meaningful way.

We use descriptive statistics to find out the average value and deviation of the various variables.

(b) Correlation Matrix

A correlation matrix is a table showing correlation coefficients between sets of variables. Each random variable is correlated with each of the other variables.

To find how much each variable is correlated with other variables we will use correlation matrix.

(c) Regression Analysis

Regression model shows the relationship among various variables (dependent and independent variables) at different significances level.

We use regression analysis in this study to find whether Non-performing loans impact on FI's Profitability or how much net profit margin is explained by classified loans and other independent variables.

We will use the following regression equation for this study such as

$\hat{Y}$ (NPM) = a -β1CL + β2IM + β3LDR +e [**Equation-3.1 Net Profit Margin]**

Where, $\hat{Y}$ (Net Profit Margin) is dependent variables,

B1 is the slope or coefficient of classified loan (CL),

B2 is the coefficient of interest margin (IM),

B3 is the coefficient of loan deposit ratio (LDR)

And e is the error

(d) Multi Co-linearity test

Multicollinearity is a statistical phenomenon in which two or more predictor variables in a multiple regression model are highly correlated.

There are three several independent variables such as CLs, IM and LDR are used in the regression model. To know how each independent variable correlated to other predictors we will use multicollinearity test.

Chapter Four

Results and Discussion

In the following analytical tools, we take net profit margin as dependent variable and classified loans to total loans, interest margin, and loans deposit ratio as independent variables.

- **Independent Variables**: Classified Loans to Total Loans (CLT), Interest Margin (IM), Loan Deposit Ratio (LDR).
- **Dependent Variable**: Net Profit Margin (NPM).

4.1 Descriptive Statistics

A descriptive statistics is the process of using and analyzing those statistics which describe, show or summarize data in a meaningful way.

A **classified loan (CLs)** is a bank loan that is in danger of default.....As such, it is unclear whether the bank will be able to recoup the loan proceeds from the borrower. **Net interest margin (NIM)** is a measure of the difference between the interest income generated by banks or other financial institutions and the amount of interest paid out to their lenders relative to the amount of their (interest-earning) assets. **Loan Deposit Ratio (LDR)** a ratio that is used in determining the amount of loans that a bank has out versus the amount of current deposits on hand at that same time.

Net profit margin (NPM) is the percentage of revenue left after all expenses have been deducted from total revenues.

Table: 3 Results of Descriptive Statistics

Variables	Mean	Std. Error	Std. Dev.	Count.
CLs	993.733	121.652337	719.70493	35
IM	1172.358	187.6644857	1110.2380	35
LDR	1.416985	0.06157988	0.3643	35
NPM	511.641	94.276557	557.7476	35

Note: CLs= Classified Loans; IM = Interest Margin; LDR = Loan Deposit Ratio; and NPM = Net Profit Margin.

By using MS Excel software we found the value of descriptive statistics.

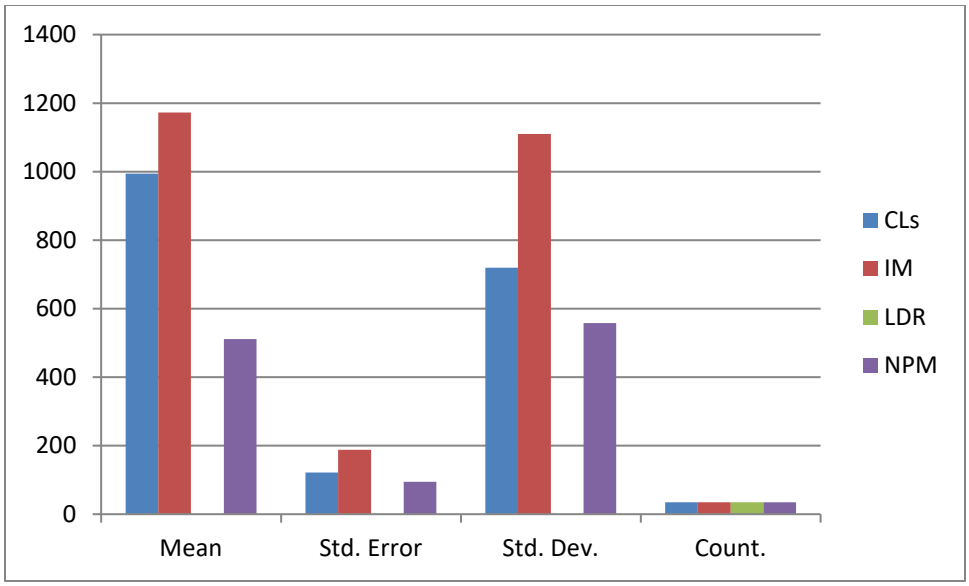


Figure 4.1: Results of Descriptive Statistics

Table: 3 shows the descriptive statistics of the entire variable used in the study. Mean is the average of the data, which is the sum of all the observations divided by the number of observations and it is used to describe the sample with a single value that represents the center of the data.

The standard error of the mean (std. Error) estimates the variability between sample means that we would obtain if we took repeated samples from the population.

The standard deviation (Std. Dev.) is the most common measure of dispersion, or how spread out the data are about the mean. Count is the total number of observations in the column. Here number of observations are 35.

From the above table, the mean of CLs to total loan of the sampled companies is about 993.733 with standard deviation 719.7049 and standard error is 121.65.

The average interest margin is 1172.358 with std. deviation 1110.238 and error 187.66.

The average loan deposit ratio is 1.41698 with std. deviation of 0.3643 and the mean value of net profit margin is 511.64 with Std. deviation 557.7476 and error is 94.28. The net profit margin is highly volatile because of its higher standard deviation.

4.2 Correlation Matrix

A correlation matrix is a table showing correlation coefficients between sets of variables. Each random variable (Xi) in the table is correlated with each of the other variables in the table (Xj). This allows us to see which pairs have the highest correlation.

By using MS Excel software we found the value of correlation matrix.

A classified loan (CLs) is a bank loan that is in danger of default. . . . As such, it is unclear

whether the bank will be able to recoup the loan proceeds from the borrower. Net interest margin (NIM) is a measure of the difference between the interest income generated by banks or other financial institutions and the amount of interest paid out to their lenders relative to the amount of their (interest-earning) assets. Loan Deposit Ratio (LDR) a ratio that is used in determining the amount of loans that a bank has out versus the amount of current deposits on hand at that same time.

Net profit margin (NPM) is the percentage of revenue left after all expenses have been deducted from total revenues.

Table: 4 Results of Correlation Matrix

Variables		CL	IM	LDR	NPM
CL		1	0.5896	0.1468	0.6035
IM		0.5896	1	-0.1807	0.9658
LDR		0.1468	-0.1807	1	-0.1119
NPM		0.603	0.9658	-0.1119	1

Note: CLs= Classified Loans; IM = Interest Margin; LDR = Loan Deposit Ratio; and NPM = Net Profit Margin. N=35

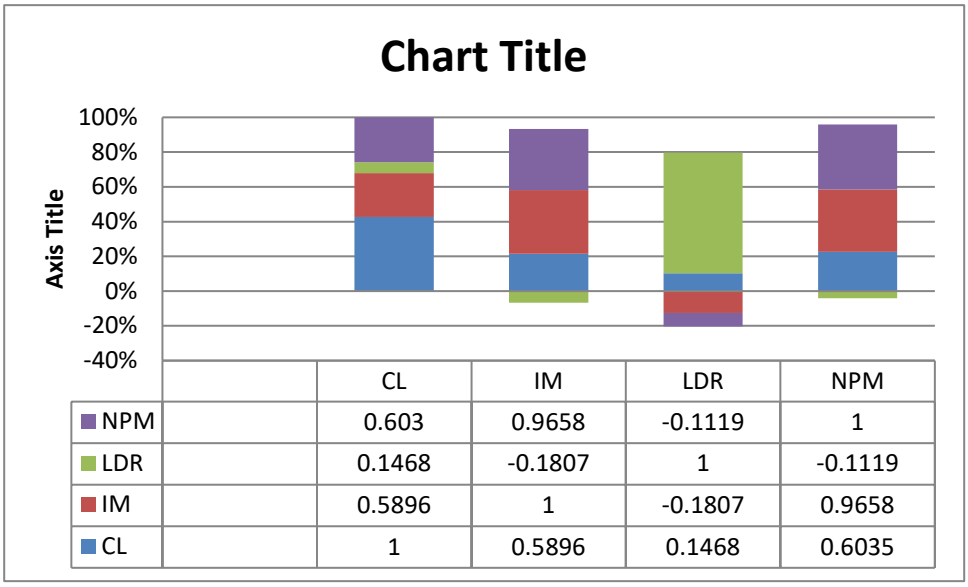


Figure 4.2: Results of Correlation Matrix

From the **table:4**, first row representing that classified loan (CL) is highly correlated with net profit margin (NPM) that is 0.6035 0r 60.35% and this means that net profit margin is highly sensitive to classified loan.

The second row representing that interest margin (IM) is highly correlated with net profit margin (NPM) that is 96.58% and negatively correlated with loan deposit ratio (LDR) that is -18.07% This means that net profit margin is highly sensitive to interest margin and prevailing a positive relation.

The third row shows that loan deposit ratio is highly correlated with classified loan that is 14.68% and prevailing positive relation. And negatively correlated with interest margin (IM) and net profit margin (NPM). In the last row, Net profit margin is highly correlated with interest margin that is 96.58% and negatively correlated with loan deposit ratio.

4.3 Multiple Regression Analysis

Multiple regression model shows the relationship among various variables (dependent and independent variables) at different significances level.

Table: 5 Results of Multiple Regression Analysis

Model summary				
Model	M. R	R. Square	Adj. R Square	Std. error
1	0.9682	0.937	0.931	146.16

Predictors: (Intercept), CLs, IM, LDR

By using MS excel software, we found values of regression equation.

The results from the **table: 5** shows net profit margin (NPM) is explained 93.7% by classified loan (CLs), interest margin (IM) and loan deposit ratio (LDR) with standard error 146.16 at confidence Level 95%.This means that there is significant impact of Non-Performing Loans (NPL) on Profitability (Net Profit Margin) of listed Non-Bank Financial Institutions at Dhaka Stock Exchange (DSE).

So we reject null hypotheses (Ho) and accept alternate hypotheses (H1).

The multiple regression equation according to our problem is given below:

$$\hat{Y}\ (NPM) = a - \beta 1CL + \beta 2IM + \beta 3LDR + e$$

Coefficients				
Mode -1	Beta	Str. Error	t – value	Sig.(p-value)
(Intercept)	-197.242	110.58	-1.784	0.084
CL	-0.022	0.0454	-0.474	0.639
IM	0.482	0.03	16.254	1.012
LDR	86.26	73.81	1.169	0.2515

Dependent Variable: NPM

Using MS Excel software we have found the value of multiple regression equation shown below:

$$\hat{Y} = -197.242 - 0.022CL + 0.482IM + 86.26LDR$$

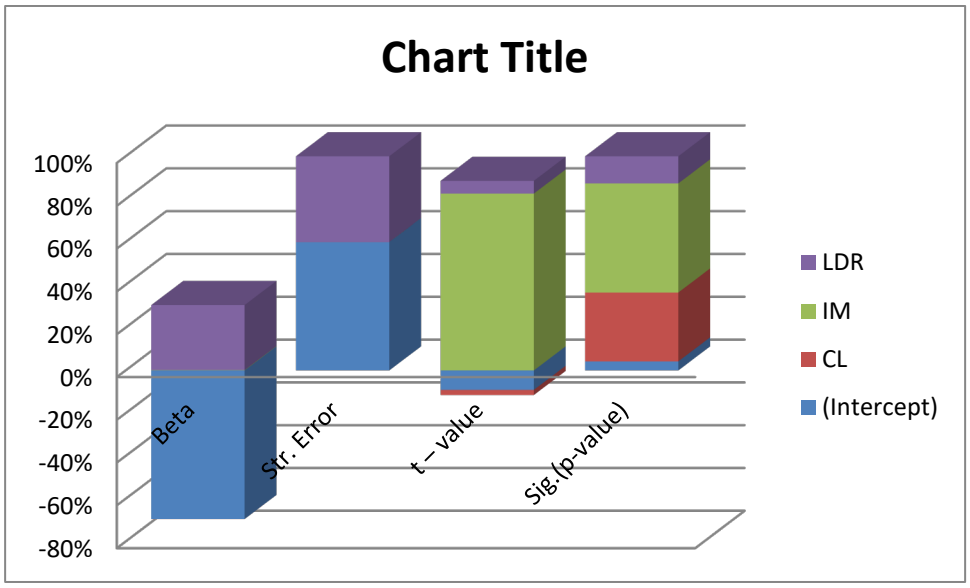


Figure 4.3: Results of Multiple Regression Analysis

We know the actual multiple regression equation is $\hat{Y}$ (NPM) = a+ β1CL + β2IM + β3LDR + e where, a denotes the intercept, β1 is the slope or coefficient of classified loan (CL), β2 is the coefficient of interest margin (IM), β3 is the coefficient of loan deposit ratio (LDR) and e is the error which accounts for the variability in ($\hat{Y}$) that can't be explained by the linear equation of the 3 independent variables.

In the above calculated multiple regression equation, a= -197.242, β1= -0.022, β2= 0.482, β3= 86.26

This multiple regression equation reveals that $\hat{Y}$ (Net Profit Margin) is dependent variables.

Classified loan to total loan, interest margin, loan deposit ratio are the independent variables.

If the coefficients are 0, then we may conclude that the net profit margin will be -197.242 regardless of the amount of classified loan to total loan, interest margin, loan deposit ratio.

The coefficient β1= -0.022 expresses that if the classified loan increased by 1%, net profit margin will also be decreased by .022% because of prevailing negative relationship between the classified loan and the net profit margin along with other independent variables remain constant.

The coefficient of β2 =0.482 expresses that if the interest margin increased by 1%, net profit margin will also be increased by 0.482% because of existing positive relationship between interest margin and net profit margin along with other independent variables remain constant.

The coefficient β3 =86.26 expresses that if the loan deposit ratio increased by 1%, net profit margin will also be increased by 86.26% because of existing positive relationship between loan deposit ratio and net profit margin and holding other independent variables constant.

The T-test is used to determine whether each of the individual independent variables is significantly related to the dependent variables. In this model, a T-test can be conducted to determine the significance of each of the individual parameters (CL, IM, LDRs). From regression analysis, we can see that CL is negatively related to net profit margin while IM and LDRs are positively related to net profit margin (NPM).

In case of **ANOVA** (Analysis of variance), the total sum squares can be divided into two components; the sum squares due to Regression (SSR) and the sum squares (SSE) due to Error as shown below:

Table: 6 Summary of Analysis of Variance (ANOVA)

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	3	9914557.864	3304852.621	154.7018194	9.84
Residual	31	662244.5145	21362.72628		
Total	34	10576802.38			

a. Predictors: (Intercept), CLs, IM, LDR

b. Dependent Variable: NPM

SST = SSR + SSE [**Equation-4.1 Total sum of squares]**

Where, SST = Total sum of squares = Σ (Yi-Ÿ) **[Equation-4.2 Total sum of squares]**

SSR = sum of squares due to regression = Σ (Ŷ-Ÿ) **[Equation-4.3 Sum of squares due to regression]**

SSE = sum of errors due to error = $\Sigma (Yi- \hat{Y})$ **[Equation-4.4 Sum of errors due to error]**

The analysis of variance part shows the three values for the selected problem, SST = 10576802.38, SSE = 662244.5145 and SSR = 9914557.864.The value of SST is same whether in case of one independent variable or in case of two independent variables because it doesn't depend on $\hat{Y}$, but SSR increases and SSE decreases when a second independent variable is added (say for, interest margin). The implication is that the estimated multiple regression equation –provides a better fit for the observed data.

Adding more independent variables (for instances, loan deposit ratio) cause the prediction errors to become smaller, thus reducing the sum of squares due to error (SSE) because SSR = SST-SSE when SSE becomes smaller.

The F-test is used to determine whether a significant relationship exists between dependent variable (Net profit margin) and the set of all independent variables such as the classified loan to total loan, interest margin, and loan deposit ratio respectively. We will refer to the F-test as the test for overall significance.

In this ANOVA model, the hypothesis for the F-test involves the parameters of the multiple regression models: $H0 = \beta1 = \beta2 = \beta3 = 0$

$H1 = \beta1$or $\beta2$, $\beta3$ is not equal to zero.

If H0 is rejected, we have enough evidence to deduce that two of the parameters are not equal to zero and that the overall relationship between NPM ($\hat{Y}$) and other three independent variables (CLs, IM, LDR) is significant. However, if H0 is accepted, we don't have the sufficient evidence to deduce that a significant relationship exists between dependent and independent variables.

Before interpreting the F-test, we need to know the concept of Mean Square. A mean square is a sum of square dividend by its corresponding degrees of freedom. In the multiple regression models, SST has (n-1) degrees of freedom, SSR has p (number of independent variables) degrees of freedom and SSE has (n-p-1) degrees of freedom. Hence, the mean square due to regression (MSR) is SSR divided by p and the mean sum of square due to error (MSE) is SSE divided by (n-p-1). If H0 is accepted, MSR provides an unbiased estimate of $\sigma2$, and the value of MSR or MSE becomes larger. To determine how large values of MSR/MSE must be to reject H0, we make use of the fact that if H0 is true and the assumptions about the multiple regression model are valid, the sampling distribution of MSR/MSE is an F-distribution with p degrees of freedom in the numerator and (n-p-1) in the denominator. The summary of F-test is given below:

F = MSR/MSE **[Equation-4.5 The summary of F-test]**

F = MSR/MSE = 154.702/9.84 = 15.72

With a level of significance α= 0.05, we reject H0 and there is a significant relationship exists between total net profit margin & all the independent variables.

4.4 Multicollinearity Test

Multicollinearity is a statistical phenomenon in which two or more predictor variables in a multiple regression model are highly correlated, so that the coefficient estimates may change erratically in response to small changes in the model. There are three several independent variables such as CLs, IM and LDR are used in the regression model. We need to know how much they are correlated to each other that is determined through multicollinearity test. A correlation matrix is used to determine multi-collinearity between the variables. If there is a strong correlation between two predictor variables, the correlation coefficient is close to 1. In a situation where two predictor variables have a correlation coefficient of 1 or close to 1 then one of them has to be dropped from the regression model. Because those highly correlated predictor variables may produce higher p value at the time of explaining answer.

	Classified Loans	*Interest Margin*	*Loan Deposit Ratio*	*Net Profit Margin*
Classified Loans	1			
Interest Margin	0.589608635	1		
Loan Deposit Ratio	0.146816417	-0.180706753	1	
Net Profit Margin	0.601956375	0.965927447	-0.112993814	1

From the above correlation matrix table, correlation between two predictive variables such as classified loans and interest margin is high which is.5896. It indicates that multicollinearity exists between these two variables. As the purpose of the study is to interpret the variables that is understanding how net profit margin (NPM) changes because of changes in classified loans (CLs), Interest Margin (IM) and Loan Deposit Ratio (LDR). So one of these two highly correlated variables should be excluded from the regression model. Here Classified Loans (CLs) is excluded.

Table: 7 Multicollinearity test through regression analysis

SUMMARY OUTPUT

Regression Statistics	
Multiple R	97%
R Square	94%
Adjusted R Squ	93%
Standard Error	144.5997135
Observations	35

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	2	9924734.936	4962367.468	237.3307744	0%
Residual	32	669090.4683	20909.07713		
Total	34	10593825.4			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.0%*	*Upper 95.0%*
Intercept	-206.143162	108.9374315	-1.8923079	0.067527213	-428.0414484	15.7551247	-428.041448	15.75512473
Interest Margir	0.49146036	0.02271021	21.6405028	0%	0.445201177	0.53771954	0.44520118	0.537719544
Loan Deposit R	99.1155418	69.20929121	1.432113233	16%	-41.85917113	240.090255	-41.8591711	240.0902547

By using MS excel software, we tested multicollinearity through new Regression Analysis:

From the **table: 7** regression summary, the model is statistically significant. Net Profit Margin (NPM) is well explained by Interest Margin (IM) in absence of other predictor such as Classified Loans (CLs). P value of interest margin is less than 5% significance level while p value of loan deposit ratio is greater than 5%.

So variables with high multi-collinearity will not explain the model accurately. If we exclude one of them then the model would be better one in explaining dependent variable.

Chapter Five

Findings and Recommendations

5.1 Findings

From the above analysis, we can interpret that a significant relationship exists between Total Net Profit Margin (NPM) & all other independent variables: Classified Loans to Total Loans (CLs), Interest Margin (IM) and Loan Deposit Ratio (LDR). Classified Loans (CLs) negatively correlated with Net Profit Margin (NPM) that is the more classified loans turned into a firm's total asset volume the less net profit margin will have. On the other hand, Interest Margin and Loan Deposit Ratio (LDR) positively correlated. An increase in loan deposit ratio and interest margin will increase in net profit margin.

Loans may become of problem nature for various causes. Some quantitative and qualitative causes are given below:

(a) The primary cause of NPLs is to choose wrong customer at the time of loan sanction. Most of the cases NBFIs fail to identify the right customer and take wrong decision at customer selection. This chance istaken by the habitual defaulter maximum time.

(b) This type of customer usually diverts the fund from their businesses for using the fund outside regular business. Mostly the diverted fund is used for fixed investment which could not generate income for the interest payment of loan.

(c) The small customers become defaulter without having any bad intention of loan default. They do not have the adequate financial literacy for taking and servicing of loan and interest payment thereon.

(d) Some project loans are defaulted due to lack of knowledge about the project or business. Customer's often starting new business from taking loan from banks but they do not have any idea or knowledge about the new business. If the project does not run smoothly or the business is not properly handled by the concerned, the loan becomes defaulted. It is one of the root causes of NPLs.

(e) Due to unrest competition in the market, banks and non-bank institutions enhance the excess loan facilities to the existing customer or sanctioned excess limit to the new customer despite of increasing business volume. Then the customer invests the excess amount outside the business. Since the business volume is not increased, the customer can't bear or service the interest burden of the enhanced amount.

(f) Aggressive, unscrupulous and target oriented non-banking institutions indirectly increases NPLs. The bankers could not scrutinize and fine turned the loan file due to pressure of achieving target. The unhealthy and bad competition and practices are exercised between the banks and between the bankers. Sometimes the political pressure influences to sanction loan that are not eligible for loan.

(g) The willful defaulter often keeps them unclassified by filling writ petition in High Court Division despite of being classified. This practice is spread widely and exercised by the habitual defaulter. By using this opportunity, they also take fresh loan from other banks. Sometimes it is observed that those loans also become defaults by passing of time.

5.2 Amplifications of the effect of NPLs are as follows

NPLs can lead to efficiency problem for the banking sector. It is found by a number of economists that failing banks tend to be located far from the most-efficient frontiers, because banks do not optimize their portfolio decisions by lending less than demanded.

- ✓ There is a negative relationship between the non-performing loans and performance efficiency. So, increase in NPLs hampers the performing loan. Most of the cases, it occurs when there is an adverse selection. Adverse selection is asymmetric information problem that occurs before the transaction.
- ✓ NPLs creates the Credit Crunch situation. Credit crunch is a phenomenon that banks ration loan disbursement and new credit commitments in order to protect, but add more risks. Banks treat loan as an asset. Clients have to pay more. So loans may be defaulted. Credit crunch also increases the rate of NPLs.
- ✓ During the crisis moment, in order to restore the credibility among creditors and depositors, failing financial institutions not only try to expand their equity bases, but also reduce their risk assets or change the composition of the asset portfolio. Because of such defensive actions, the corporate debtors are always targeted, thus the economic growth is being stalled overall.
- ✓ Money cycling gets stopped due to increase in NPLs. Slow flowing of cash always has negative impact on any business.
- ✓ When the NPLs is increased, interest earning gets stopped. But the cost of fund and the cost of management are not stopped. To run the management cost along with the cost of fund, the existing lending price has to be increased. Suddenly increased rate of interest makes hard the return of bank money for a new borrower. So rate of investment will be lower.
- ✓ NPLs affects opening of LC (Letter of Credit). International importers always choose healthy condition of the exporter's bank. Worse health condition of the bank affects the opening of new LCs. Low rate of LCs makes low bank earning.
- ✓ NPLs exists as a natural consequence of lending behavior. When banks re-balance their portfolio, they decide on the degree of risks they will tolerate for a given level of expected

return according to their risk preference because banks have to keep 10% of their risk weight asset as capital or 400 cores.

- ✓ NPLs has a positive relationship with interest rate. When NPLs increases, loan which is treaded as asset becomes more risky. So that the rate of interest also increases to get sufficient return from the loan to cover the risk

5.3 Recommendations

To curb down NPLs, Bangladesh should initiate some major restructuring. The FIs should start restructuring the overall operation by taking measures like increasing collateral, receiving additional legal document, verification and authentication of those legal documents.

(a) Corporate entities should start some restructuring in some elements like capital structure, totalassets and management of organization should be under control.

(b) To overcome the default of the companies, some provisions like merger and acquisition, realization of disinvestment transaction should be introduced in overall business practice.

(c) Additional collateral is required when the value of a loan is increased from previous financing.

(d) Protect the loan receivers from any outside influence.

(e) According to loan policy, banks should have specific limits for specific type of loans, loan officer should not cross the limit.

(f) Applying some restrictions on loan defaulters, such as restrictions on establishing new company, purchasing new flat, buying new car, riding on air plane etc.

(g) Strong surveillance of the movement of business or entrepreneurs activities.

(h) No government subsidies and financial promotion to the firms who are defaulters.

(i) FIs should be able to recognize the defaulters so that they could be stopped from taking future loan from any other bank or FIs.

(j) Encouragement and motivation towards honesty, dedication and production activities,

(k) Enacting code of conduct, rule of business, and file a case against loan defaulters.

(l) Government must enforce law and give punishments to those vicious circle of businessman and speculators who intentionally make the loan default over the years.

5.4 Conclusion

As lending is the major profitable investment for the Non-Bank Financial Institutions, non-performing loans has adverse effect on its profitability. In this study we tried to show the impact of non-performing loans on non-bank financial institutions profitability.

FIs become weak and highly non profitable due to excessive NPLs portfolio. Huge NPLs portfolio erodes the ability of FIs to make profit. NPLs also affects in economic growth. Rise in NPLs is a feature of financial crisis of a country. Excess NPLs hampers in the circulation of money in the market which adversely impact on this industry.

It's time to work with non-performing loan as the fund that given to the borrowers in the different forms loan must be safe and are recovered when due. FIs do businesses with mainly venture capital or own funds, if it can't recovered the loan with interest it will undoubtedly lose its asset and market share and that will lead to vulnerable situation in respective industry or even which crates bankruptcy.

The suggestions given above can be taken into consideration to reduce non-performing loans. Also the central bank and Government has some role to play to ensure sound environment in the Financial Institutions (FIs).

Appendix

Secondary data from firm's annual report:

Year	Company	Classified Loans	Interest Margin	Loan Deposit Ratio	Net Profit Margin
2014	IDLC	914.978	2849.18	1.239	1153.53
2015	IDLC	1647.03	3196.6729	1.1275	1243.82
2016	IDLC	1818.868	3530.3193	1.237	1496.4
2017	IDLC	1954.376	3994.81	1.15148	2277.12
2018	IDLC	1813.92	4222.7257	1.154	2171
2014	IPDC	192.33	503	1.42	165.51
2015	IPDC	126.68	486.34	1.35	240.19
2016	IPDC	137.51	685.37	1.13	303.08
2017	IPDC	213.87	1072.59	1.158	335.42
2018	IPDC	947.65	1698.33	1.1958	450
2014	GSP F	292.89	241.58	2.03	115.86
2015	GSP F	303.85	357.38	1.688	199.17
2016	GSP F	447.57	609.618	1.7696	300.76
2017	GSP F	688.98	650.47	2.0379	322.15
2018	GSP F	599.08	596.08	2.529	310.996
2014	UNITED Finance	327.84	832.26	1.2566	282.82
2015	UNITED Finance	603.05	774.53	1	343.25
2016	UNITED Finance	523.57	771.36	1.0572	313.04
2017	UNITED Finance	505.31	733.73	1.0865	256.2
2018	UNITED Finance	530.34	911.49	1.1828	276.77
2014	UTTARA Finance	1061.3	528.11	2.0192	176.51
2015	UTTARA Finance	1729.52	1005.69	1.6173	551.68
2016	UTTARA Finance	1707.03	1243.29	1.5399	829.36
2017	UTTARA Finance	1817.06	1804.15	1.9399	907.71
2018	UTTARA Finance	3568.47	2320.78	1.9939	1034.95

2014	MIDAS Finance	930.59	25.66	1.1249	-146.78
2015	MIDAS Finance	1030.02	60.99	1.151	43.35
2016	MIDAS Finance	1072.05	361.28	1.3	267.22
2017	MIDAS Finance	1023.47	299.73	1.3044	217.95
2018	MIDAS Finance	1284.54	173.71	1.384	112.57
2014	PHONIX Finance	684.257	751.24	1.1651	198.5
2015	PHONIX Finance	475.69	803.5	1.2169	265.43
2016	PHONIX Finance	809.23	861.716	1.3103	282.97
2017	PHONIX Finance	1424.78	1055.67	1.4145	285.11
2018	PHONIX Finance	1574.36	1019.18	1.3128	282.82

Descriptive Statistics:

Classified Loans		*Interest Margin*		*Loan Deposit Ratio*		*Net Profit Margin*	
Mean	993.7731143	Mean	1172.358054	Mean	1.416985143	Mean	511.6401714
Standard Error	121.6523367	Standard Error	187.6644857	Standard Error	0.06157988	Standard Error	94.27655714
Median	914.978	Median	774.53	Median	1.3	Median	300.76
Mode	#N/A	Mode	#N/A	Mode	#N/A	Mode	#N/A
Standard Deviatio	719.7049298	Standard Deviation	1110.23807	Standard Deviation	0.364311484	Standard Deviation	557.7476337
Sample Variance	517975.186	Sample Variance	1232628.572	Sample Variance	0.132722857	Sample Variance	311082.4229
Kurtosis	3.254644751	Kurtosis	1.686052358	Kurtosis	1.242937406	Kurtosis	3.67248746
Skewness	1.415966433	Skewness	1.607594633	Skewness	1.355992612	Skewness	1.99009286
Range	3441.79	Range	4197.0657	Range	1.529	Range	2423.9
Minimum	126.68	Minimum	25.66	Minimum	1	Minimum	-146.78
Maximum	3568.47	Maximum	4222.7257	Maximum	2.529	Maximum	2277.12
Sum	34782.059	Sum	41032.5319	Sum	49.59448	Sum	17907.406
Count	35	Count	35	Count	35	Count	35

Correlation Matrix:

	Classified Loans	*Interest Margin*	*Loan Deposit Ratio*	*Net Profit Margin*
Classified Loans	1			
Interest Margin	0.589608635	1		
Loan Deposit Ratio	0.146816417	-0.180706753	1	
Net Profit Margin	0.601956375	0.965927447	-0.112993814	1

Multiple Regression Analysis:

SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.968187522
R Square	0.937387077
Adjusted R Square	0.931327762
Standard Error	146.1599339
Observations	35

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	3	9914557.864	3304852.621	154.7018194	9.84091E-19
Residual	31	662244.5145	21362.72628		
Total	34	10576802.38			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95*
Intercept	-197.2425148	110.5812143	-1.783689173	0.084267561	-422.7743883	28.28935
Classified Loans	-0.02157574	0.045497218	0.474221088	0.638665638	-0.071216447	0.114367
Interest Margin	0.482118964	0.029662017	16.2537483	1.01153E-16	0.42162288	0.542615
Loan Deposit Ratio	86.25725284	73.81080743	1.168626328	0.25146277	-64.2808814	236.7953

Mul-collinearity test

SUMMARY OUTPUT								
Regression Statistics								
Multiple R	97%							
R Square	94%							
Adjusted R Squ	93%							
Standard Error	144.5997135							
Observations	35							
ANOVA								
	df	*SS*	*MS*	*F*	*Significance F*			
Regression	2	9924734.936	4962367.468	237.3307744	0%			
Residual	32	669090.4683	20909.07713					
Total	34	10593825.4						
	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.0%*	*Upper 95.0%*
Intercept	-206.143162	108.9374315	-1.8923079	0.067527213	-428.0414484	15.7551247	-428.041448	15.75512473
Interest Margir	0.49146036	0.02271021	21.6405028	0%	0.445201177	0.53771954	0.44520118	0.537719544
Loan Deposit R	99.1155418	69.20929121	1.432113233	16%	-41.85917113	240.090255	-41.8591711	240.0902547

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