UNIVERSITY OF DHAKA

CREDIT MANAGEMENT OF FINANCIAL INSTITUTIONS OF BANGLADESH

MD. ALI NOOR

DHAKA, BANGLADESH

JUNE 2008

UNIVERSITY OF DHAKA

CREDIT MANAGEMENT OF FINANCIAL INSTITUTIONS OF BANGLADESH

A DISSERTATION SUBMITTED

TO

THE DEPARTMENT OF ACCOUNTING AND INFORMATION SYSTEMS

FOR THE DEGREE OF DOCTOR OF PHILOSOPHY (Ph.D.)

BY

MD. ALI NOOR

SUPERVISOR

Professor Santi Narayan Ghosh
Department of Accounting & Information Systems
University of Dhaka, Dhaka -1000, Bangladesh.

CO-SUPERVISOR

Dr. Toufic Ahmad Choudhury
Professor & Director
Bangladesh Institute of Bank Management
Mirpur-2, Dhaka-1216, Bangladesh.

DHAKA, BANGLADESH

JUNE 2008

TO MY

FATHER MR. ABUL KASHEM

&

MOTHER MRS. NOOR NAHAR KASHEM

Supervisors' Certificate

This is to certify that Mr. Md. Ali Noor, a Ph.D. student registered in the Department of Accounting and Information Systems, University of Dhaka, has prepared this dissertation under our joint supervision. This is a unique and independent work of Mr. Noor. The dissertation has not been submitted to any other Universities or Authorities for any degree.

Professor Santi Narayan Ghosh
Department of Accounting &
Information Systems
University of Dhaka, Dhaka -1000,
Bangladesh.

Dr. Toufic Ahmad Choudhury
Professor & Director
Bangladesh Institute of Bank
Management
Mirpur-2, Dhaka -1216, Bangladesh.

Abstract

Statement of the problem: Credit is the heart of banking business. It is claimed that success and failure of banking business largely depend on its credit management process. Many credit officers and researchers believe that banks frequently make loans, which are seriously flawed at their inception and subsequently turn into problem loans or charge-off due to improper credit management. Financial institutions in Bangladesh have been suffering from massive classified loans for a long time. They are carrying around Tk.17,511.41 crore classified loans which is 13.55 percent of their gross loans against single digit in the most developed countries. There also exists a wide variation in classified loans levels among financial institutions in Bangladesh. It ranges from single digit to as high as 34.87 percent. The total loan has been increased tremendously (Tk.31,028.53 crore in 1995 to Tk.1,29,235.49 crore in 2005) with an equal march of classified loans (Tk.9,942.23 crore in 1995 to Tk.17,511.41 crore in 2005) which urges for an intense study on credit management. Empirical data show that the rate of non-performing loans and the interest rate of banks in Bangladesh are the highest in the world. Naturally, the cost of capital for genuine investors is also very high. This can never be a good sign for a growing economy. It motivated the researcher to inquire about the question, why had financial institutions in Bangladesh, banks in particular, suffered from huge non-performing loans in their credit business. Therefore, attempts were made in this study to explore actual credit management practices of banks, to examine its strengths or weaknesses and to identify the causes of non-performing loans in Bangladesh.

Objectives of the study: A few researches had been undertaken in the past on the same field but most surprisingly it is noticed that despite huge nonperforming loans in Bangladesh, very little researches addressed the issue of nonperforming loans in relation to credit management of loan providing institutions. This study was an attempt to explore and to examine issues relating to credit management in Bangladesh. The very simple queries on which this study was based on were: (i) How far is it true that bad loans were bad before their approval? and (ii) how far is it true that banks do not make any bad loans?

Methodology: Sequential exploratory research strategy of 'mixed methods' procedures were used in this study. Initial phase of it was qualitative in nature, which was followed by a quantitative one. The case study method was used in phase one and it looked at specific default loan cases. Through a case study an attempt was made to improve the understanding of actual credit management processes of sample banks and to identify the various causes of default loans. For this, ten default loan files were studied. Typological data analysis model was used to collect, to present, to analyze and to present case study findings. Data were collected directly from loan files of the borrowers by visiting offices of the sample banks. For studying, three cases were taken from a Development Finance Institution (DFI), two from a Nationalized Commercial Bank (NCB), other two from a first generation Private Commercial Bank (PCB), and the rest from a Denationalized Commercial Bank. Content analysis method was used for studying those credit files, which were selected for sanctioning loans during 1982 to 1996. This period was selected for the study because it was evident from past researches that about 80 percent classified loans were sanctioned during this period. Survey method was used in the quantitative phase, and it was based on opinions of three different respondent groups: namely credit officers of banks (40), bad borrowers (18) and good borrowers (19). Out of 334 of the sampling frame, 77 samples were randomly selected. The survey was conducted through self-constructed structured and unstructured questions.

Findings of the study: As mentioned in the methodology, findings of this study were grouped into two stages: (i) case study and (ii) opinion survey and the findings of the study are:

Findings of the case study: In general, credit officers in Bangladesh claim that they properly follow all necessary steps of credit management and carry out their job truly. However, their claims do not prop up by the case study findings. For example, sample banks did not have any written credit policy (only one sample bank drafted its credit policy in May 2005, other banks failed to show any written credit policy). They neither possess any written credit investigation policy nor have any databank from where credit officers could collect information about economy, business, borrowers' performance, sector performance, industry average, market price etc. It is found that feasibility studies prepared by credit officers are nothing but arrangement of some figures. Similarly, data used in the feasibility studies neither had enough supporting evidence nor were collected from any recognized sources. It becomes clear from credit files that political influence, bureaucrats' domination, top bank executives' command, bank executives' pressure and policy lending play significant role in feasibility studies and loan decisions. The case study also shows that sample banks did not have any written credit monitoring and reviewing policy. It is found in all cases that, credit officers failed to supervise and to assess the performance of borrowers regularly. They usually evaluate performance of borrowers for renewal and rescheduling of loans. It is also found that credit officers took initiatives in all cases after borrowers had become defaulters. In most of the cases, emphases were given on recovery of principal amount only. For handling default loans, banks rescheduled the loans, waived interest, reduced interest rate and abstained from charging interest.

Findings of the opinion survey: In the opinion survey, respondents claimed that banks have written credit policies. About 87 percent of respondents are of the opinion that banks have credit investigation policies and on the average credit officers are investigating 5.23 aspects for credit investigation. They collect information on the average from 5.1 sources. Respondents expressed their satisfaction about present credit investigation and a statistical test shows that there exists no difference of opinion among three respondent groups about credit investigation. It was planned in the study to survey whether banks have any credit analysis policy, what aspects credit officers normally analyze in credit analysis and to measure respondents' satisfaction level about present credit analysis of banks in Bangladesh. It is revealed from the opinion survey that banks have written credit analysis policies and credit officers on the average analyze 7.7 aspects (out of formulated 11 aspects) in credit analysis. Respondents expressed their opinion that present credit analysis of banks is satisfactory and 'F' test shows that ($F=0.482$; $p< 0.602$; Insignificant) there exists no difference of opinion among three respondent groups about credit analysis. On the topic of the credit appraisal, an attempt was made to know the respondents' opinion whether credit analysis task should be given to an independent third party/agency. About 68 percent respondents do not support the policy of delegating the responsibility to an independent third party/agency. Attempts were also made to know the existing policies of credit monitoring and reviewing. Majority (65 percent) of the respondents expressed their opinion that banks have written credit monitoring and reviewing policy. Credit officers are on the average monitoring and reviewing 4.3 aspects (out of formulated 09 aspects) in reviewing borrowers' performance. They expressed their satisfaction about existing monitoring and reviewing performance of banks. But 'F' test ($F=21.150$; $p<0.000$) shows that there exists significant difference of opinion among three respondent groups about monitoring and reviewing performance of banks. It was also planned to make out what techniques credit officers normally use in handling nonperforming loans and the respondents' opinion about present nonperforming loans handling techniques of banks in Bangladesh. In this regards, respondents opined that credit officers normally use on the average 5.1 techniques (out of formulated 8 techniques) in handling nonperforming loans and they expressed their satisfaction about present techniques of handling nonperforming loans of banks in Bangladesh. On inquiry about causes of default loans, respondents identified (1) influence of top executives and directors (2) reluctance of borrowers to repay loan (habituated defaulter) (3) improper selection of borrowers (4) lack of information about borrowers and their business (5) poor credit culture (6) influence of bureaucrats (7) influence of politicians (8) poor monitoring and reviewing (9) inadequate techniques to handle problem loans are major cause of default loans in Bangladesh. The study attempted to survey the opinion of respondents on some relevant issues like what are the problems borrowers are facing in getting loans, whether credit officers are helping borrowers in preparing loan proposals. In these matters, respondents opined that maintenance of various formalities is the main problem borrowers are facing at the time of applying for loan. About 97 percent of credit officers and on the average 85 percent of respondents are of the opinion that credit officers help borrowers prepare loan proposals. Majority (85 percent) of the respondents gave opinion that existing loan processing is lengthy and cumbersome and 75 percent asserted that collateral security cannot ensure smooth repayment of loan.

***Comparison of the case study and the opinion survey findings*:** It is found in the case studies that most of the steps of credit management were negligently followed by credit officers. Top executives, politicians and bureaucrats influenced appraisal of loan proposals, sanction of loans and handling nonperforming loans. This finding is supported by the opinion survey finding. Respondents identified influence of top executives and directors, improper selection of borrowers, influence of bureaucrats, and influence of politicians are the major causes of loan defaults. On the other hand, to some extent different findings are found in case of credit policy, credit investigation policy, credit analysis policy and credit monitoring and reviewing policy. Majority of the respondents asserted that every bank has its credit policy (100 percent), credit investigation (86.7 percent) policy, and credit analysis policy (81.7 percent).

Policy recommendations: From the case studies it is clear that credit officers' feasibility study is nothing but production of some figures only. Enough symptoms are found in the file that loans will become bad in future and it is also supported by the findings of the opinion survey. Individually 97 percent credit officers and aggregately 85 percent respondents opined that credit officers in Bangladesh are helping borrowers in preparing loan proposals. Opinion survey identified that top executives and directors' influences, influence of bureaucrats, influence of politicians are the major cause of loans default. The study started with the question that, is it true that banks do not make any bad loans. The case study and the opinion survey findings conforms that credit officers' negligence, top bank executives', bureaucrats', and politicians' influence are responsible for default loans. From the above findings, the study concludes that banks often make loans which are acutely faulty at their beginning and later become problem loans. To overcome these problems the researcher extensively reviewed the existing literature and make discussion with knowledgeable persons. By reviewing existing literature and discussion with knowledgeable persons the study prepared the list of the following recommendations:

- Every bank should have a well thought written credit policy.
- Every bank should have a written credit investigation policy.
- Credit officers should be knowledgeable about probable sources of information, and aspects of credit investigation.
- Credit appraisal should be done in the following sequence: management competence, commercial aspects, technical aspects, and financial strength.
- Credit analysis task should be given to an independent third party/agency.
- Cursory or negligent appraisal of any sequence would cause loan losses. Therefore, credit officers should be careful in appraising the aspects of credit analysis.
- To update the grade of borrowers, credit officers should look at the change in the economic variables, and review the performance of borrowers in the light of changing economic condition.
- Data bank should be established either in government or private initiatives.
- Policy lending and directed lending should be stopped.
- Accounting system need to be supplemented by auditing and backed up by enforceable legal penalties for providing fraudulent or misleading information to government agencies and outsiders.

- Loan securitization company should be established in the country.
- An independent organization should be established by government or by private initiative to provide information about borrowers, their products, pricing, demand, supply, demand supply gap etc.
- Credit committee should be formed on the basis of sector and product lines experiences rather than designation basis. In this way the most qualified individuals with the best ability to judge the credit would be included in the credit committee and will add the value to the loan decision.
- Politicians, top executives, and bureaucrats' influences should be root out from credit appraisal and loan decision.

Acknowledgements

I express my sincere, unbound gratitude to my honorable teacher, supervisor and guide, Prof. Santi Narayan Ghosh for his enduring efforts, apt guidance and supervision to make the thesis worth while. I also want to express my gratitude to Dr. Toufic Ahmad Choudhury, co-supervisor of the research work, for his guidance and concern throughout my doctoral program.

A number of individuals and institutions contributed time to the study. I would like to express sincere appreciation to them all: Faculty members of the department of Accounting & Information Systems, University of Dhaka, Faculty members, Faculty of Business Administration, Islamic University Kushtia, Dr. Zillur Rahman, Mr. Mainul Hossain, General Managers, Rupali Bank Ltd., Mr. Mustafizur Rahman, General Manager, Pubali Bank Ltd., Mr. Ataul Hoque, Managing Director, IFIC Bank Ltd., Dr. A Bari, General Manager, Bangladesh Shilpa Bank, Mr. Abdur Rahim Bhuiyan, Manager, Bangladesh Shilpa Bank, Mr. Abdullah Al Masum, Mr. Mohibur Rahman, IFIC Bank Ltd,. NIBM, India, BIBM, Mirpur, Dhaka, Bangladesh, Bangladesh Bank and respondents of the opinion survey. Special thanks are due to Mr. Hafizur Rahman for his sincere efforts and help in data analysis and also to Mr. Shafiqul Islam, Assistant Professor, Dept. of Political Science and Public Administration, Islamic University, Kushtia for his editorial support.

I am grateful to my friend Mr. Tariqul Haque, Deputy Director, Bangladesh Bank, for his sincere cooperation in collecting information and borrowing books from Bangladesh Bank, my brother Mr. Mostofa Kamal for his sincere support in typing and printing this thesis. I have visited various websites of different organizations and collected important information. I thank all the authorities of these websites.

I am sorry to say, Late Mr. Abul Kashem, my father, my idol, saw the beginning of this work but not its end. I am deeply indebt to him for his encouragement. I am also indebted to my mother Mrs. Noor Nahar Kashem who is happy today.

Last but not the least, the completion of this thesis would not have been possible without the aid and generosity of many people. More than any others, my thanks go to my family, especially to my wife, Tahmina Noor, whose unfailing faith and encouragement sustained me, and who willingly sacrificed so much that we might attain this goal together and to my son, Auhon, who missed my attention during important years. They made it all worth while.

Md. Ali Noor

TABLE OF CONTENTS

CONTENTS IN DETAIL

Chapter 2 Overview of Related Literature **28-67**

Chapter 7 Findings of the Opinion Survey 246-278

List of Tables/Charts/Figures

Tables in Appendix I

List of Charts

List of Figures

List of Abbreviations

ADB	Asian Development Bank
AFP	Agency France Press
AIS	Accounting Information Systems
BB	Bangladesh Bank
BCD	Banking Circular Department
BEPZA	Bangladesh Export Processing Zone Authority
BIBM	Bangladesh Institute of Bank Management
BIS	Bank of International Settlement
BKB	Bangladesh Krishi Bank
BMRE	Balancing, Modernizing, Rehabilitation, and Extension
BRPD	Banking Regulation and Policy Department
BSB	Bangladesh Shilpa Bank
CBA	Collecting Bargaining Agent
C.C. (Hypo)	Cash Credit (Hypothecation)
CIB`	Credit Information Bureau
CL	Classified Loan
CPEs	Centrally Planned Economics
CRG	Credit Risk Grading
CRGM	Credit Risk Grading Manual
CRMG	Core Risk Management Guidelines
D.S.C.R	Debt Service Coverage Ratio
D/E	Debt Equity
DEPZ	Dhaka Export Processing Zone

DFIs	Development Finance Institutions
DMCs	Developing Member Countries
DSS	Decision Support System
FC	Foreign Currency
FCBs	Foreign Commercial Banks
FIs	Financial Institutions
FSRP	Financial Sector Reform Project
FYP	Five Year Plan
G D. P.	Gross Domestic Product
GOB	Government of Bangladesh
IBP	Inland Bill Purchase
IDCP	Interest During Construction Period
IMF	International Monetary Fund
IRG	Industry Review Group
IRs	Indian Rupees
IT	Information Technology
JB	Janata Bank
L/C	Letter of Credit
LC.	Local Currency
LRA	Lending Risk Analysis
M. T.	Metric Ton
MAC	Management Advisory Committee
MD	Managing Director
MDA	Multiple Discriminant Analysis
N O C	No Objection Certificate

NBL	National Bank Limited
NCBs	Nationalized Commercial Banks
NIBM	National Institute of Bank Management
NNPLs	Net Non Performing Loans
NPAs	Non Performing Assets
NPLs	Non Performing Loans
OD	Over Drawn
PAD	Payment against Documents
PBG	Performance Bank Guarantee
PCBs	Private Commercial Banks
PSI	Pre Shipment Inspection
RMAs	Robert Morris Associates
ROE	Return on Equity
ROI	Return on Investment
S&P	Standards & Poors
SAARC	South Asian Association for Regional Cooperation
SSIs	Small Scale Industries
STOL	Short Take of Landing
SWOT	Strengths, Weaknesses, Opportunities and Threads
UCC	Universel Commercial Code
U.K.	United Kingdom
U.S.	United States
U.S.A.	United States of America
US$	United States Dollar
VaR	Value at Risk

CHAPTER 1

INTRODUCTION

1.1 Background of the Problem

Financial institutions play a fundamental role in the economic development by encouraging, collecting and deploying society's savings in a fair and impartial way into productive investments in a free market economy. To perform this role an effective banking system is needed and without it, it is difficult for the economy to mobilize the real resources necessary for economic growth and stability (McDonough 2000, 1). For economic development two basic issues of financing are important; first, how best external funds are provided to the business sectors and second, how efficiently financiers are monitoring the behavior and performance of these corporate borrowers under an effective system of corporate governance. These two things are the functions of banks (Aoki and Patrick, 1994, xxii) and broadly termed as credit management. Present and future rates of economic growth, physical capital accumulation and economic efficiency are significantly and robustly correlated with higher level of financial development (Levine 1997, 717-718).

Economic development follows a path viz. income→ savings→ investment→ employment→ economic development. Savings and investment are the most important factors in economic development and banks play a vital role in formation of savings and enhancing investment. Savings largely depend on the public confidence about its security and earnings expectation and public confidence largely depends on the integrity of banks, and it is judged by its credit process. If credit is extended carelessly, banks are likely to incur losses, which undermine its ability to honor deposit obligations. If banks are unable to honor deposit obligation, the public confidence will undermine. Once public confident is undermine, households and businesses will likely rush for consumption which leads economy to inflation and destabilizing economy as well as banks. Now the question how banks' ability to honor deposits obligation can be impaired? Why can mobilizations of funds be disrupted? Zamaroczy (1992) views that non-performing loans[†] prevent banking systems in

[†] Non performing loans are the loans which are not paid by borrowers as per agreement and have fair chances of being bad in future.

carrying out its vital role of redistribution of domestic savings and inadequate mobilization of funds disrupts economic activity as frozen deposits and non performing loans are the main obstacles for the banking system in carrying out its vital role of collecting and redistributing domestic savings, attracting foreign capital and facilitating commercial transactions to foster economic growth. Asian Development Bank (ADB) describes the effect of non performing loans (NPLs) in this way:

> A high level of NPLs in a banking system poses a systematic risk, inviting a panic run on deposit and sharply limiting financial intermediation, and subsequently investment and growth, in the economy (Asian Development bank Outlook-2004).

It is a question now why loans become non-performing? Honohan (1997) stated that non- performing loans are the result of weak credit management and principal culprit in weak credit management are weak credit policies and procedures. Absence of efficient credit policy and procedures increases the chance of unwise and careless lending. Unwise and careless lending lead to non-performing loans and these impaired the economic development. Carse (1999) expressed his experience about the effect of non-performing loans on the economic development. He stated that

> High level of non-performing loans severely damages the confidence in the banking system. If banks lose public confidence it will lose domestic deposits and will find itself unable to rollover short-term external borrowing. With the shrinkage of deposits and impaired the capital and liquidity, the banks are in no position to lend and this lead to the phenomenon of the credit crutch and it result the shrinkage of the real economy that we have witnessed in so many countries in the East Asian region (Carse 1999, 9).

To avoid this scenario of non-performing loans, Macdonough (2000) suggested that banks have to extent credit wisely, objectively and impartially and it will ensure economic stabilization. Commercial banks play the role as major sources for raising fund for capital investment. Some argue that stock market can and should replace commercial banks for raising fund. But it is evident that only a negligible fraction of investment funds are raised from new equity or bond issues in the developed countries and also in the East Asian emerging economics (Mayer 1988; Mahmud 2003) and informal finance are less important (Gurley and Shaw 1955, 1960; Goldsmith 1969). Non-bank financial institutions also play important role in raising funds of borrowers but banks enjoy superiority over non- bank financial institutions in collecting information about the character of borrowers. By entering into long- term relationship with the customer and by repeated lending, banks can able to reduce the difficulty of collecting information about the behavior of the borrowers and can minimize the cost (Suarez and Weisbrod 1994).

In any strategy of economic development, it is essential to emphasize the evaluation of a sound and well integrated credit management system from the point of view both resources mobilization and efficient allocation of available funds (Mckinnon 1973, 73). The appropriate development of the credit management system of financial institutions and financial intermediaries of a country not only facilitated but also quickened the pace of the economic development (Raymand 1969, 153). Sound credit management supports broader national policy objectives and foster economic growth by allocating scarce financial resources efficiently and minimizing losses to the economy (Diana and Clayton 1997, 31). Credit is the heart of banking business and by which quality and the performance of banks are judged. Credit management process deserves special attention because proper credit management greatly influences the success or failure of financial institutions. Studies of banking crisis throughout the world have concluded that the most frequent factor in the failure of banks has been poor asset (usually credit) quality (Diana and Clayton 1997, 31). Effective credit management would help prevent and minimize nonperforming loans. Efficient credit management ensures the quality of credit but it is significantly influenced by other factors, such as government policy, macroeconomic condition, political pressures and the like. Banks in the developing countries are facing various problems in managing credit such as government control, external and internal political pressures, production difficulties, financial restrictions, market disruptions, delays in production schedules, and instability in the business environment (Diana and Clayton 1997, 32).

Credit management is not cost free. In fact, it is expensive. But the cost of delaying or avoiding proper credit management can be extreme: failure of a bank and possibly failure of a banking system (Meyer 2000, 8). Credit appraisal is a step of credit management. Debt hangover of banks is the result of poor credit appraisal system. Credit appraisal should incorporate the default risk because banks are increasingly becoming reluctant to increase their loan portfolio in fear of greater default risk (Gupta 1995, 40). Stability and higher economic growth lead to greater private saving, greater retention of saving, greater capital imports and more real investments. All these largely depend on sound credit management. Bank finances the companies with the highest risk adjusted expected profitability. The choices of companies are the work of credit management. The result of sound credit management is the higher economic growth. Without sound credit management, no economy can grow to its potential (Meyer 2000, 8). The quality of the credit risk portfolio and its result i.e. the earning stream depends on the underlying credit process. If the credit management process is responsive, efficient, well defined, effective in exposing risk, attentive, and anticipatory in execution and ongoing management, the quality of the portfolio should be high and earnings fairly predictable (Thurmond 1990, 38).

In banking business nonperforming loan is common. Every bank bears a certain degree of risk in its credit granting. Whatever the degree of nonperforming, it can be minimized through highly professional organization and efficient credit management (Shanmugam et al. 1990, 284). Huge non-performing loan is not unique to developing countries. Even Japan, one of the world's advanced industrial countries, has struggled with a nonperforming loan problem (Ferguson 2000, 7). The growth of competitiveness in the international credit markets in recent years, the active participation of non-bank financial institutions, and borrowers' resort to the capital markets for raising fund at lower cost, have all brought about a narrowing of profit margins in most of the country in the world including Bangladesh, and all of it forced the banks to make more loans in order to have a competitive edge. But they encountered credit problems due to adverse development in the economic and financial conditions (Ercel 1999). The most important thing in credit management is to measure the credit risk. Numbers of mathematical models have been developed around the world to measure credit risk. But it is observed that it is very difficult to measure market risk. In this regards Backstorm (2000, 3) opined that the estimation of key parameters of models is obstructed by lack of statistics and it is also difficult to measure the interactions between variables in the model and to combine them into portfolio assessment. To overcome this problem, he feels the need for a holistic approach (combination of sound judgment and common sense in the model can give better result of credit risk measurement) instead of relying solely on statistical models.

Buyske (1998) commented that Asian emerging economy faced the financial crisis in nineties due to huge non-performing loans and they felt the need of reassessment of methodology for analyzing bank credit management process. For attaining macro economic stability and to deal with problem loans, Sundararjan (1992, 10) suggests a wide range of reform in the banking sector and monetary management as well as financial system.

1.2 The Problem

The old adage, "A credit officer never makes a bad loan, it only turns bad after it has been on the books for a while," is untrue. Many credit officers and researchers believe that bank frequently make loans which are seriously flawed at their inception and subsequently become problem loans or charge-off (Behrens 1990, 31). The credit granting decision is the credit officer's best opportunity to avoid nonperforming loan problems. It requires adequate expertise knowledge of credit officer, collection of adequate information about borrowers' character, financial position, competitive position, prospect of business, critical assessment of their financial and management ability, and most of all, willingness of credit officer's to make an unbiased credit decision.

Financial institutions in Bangladesh carry around Tk.17,511.41 crore of classified loans amounting to an average 13.55 percent of their gross credit against single digit in the most developed countries. There also exists a wide variation in classified loan levels among financial institutions (FIs) in Bangladesh ranging from single digit level to as high as 34.87 percent (Source: Banking Regulation and Policy Department, Bangladesh Bank.). Tremendous growth in the credit Tk.31,028.53 crore in 1995 to Tk.1,29,235.49 crore 2005, coupled with a substantial increases in classified loans Tk.9,942.23 crore in 1995 to Tk.17,511.41crore in 2005 in Bangladesh (BRPD, BB) signal the needs for intense study on credit management.

Like Bangladesh other underdeveloped economies also have been suffering from huge non-performing loans. In a survey of 19 Developing Member Countries (DMCs) including Bangladesh, by Asian Development Bank (ADB), found that about 17 percent of the total loans values were classified as non-performing at year end 2002. This rate was more than twice as high as in Latin America and Eastern Europe (ADB

Outlook-2004, 8). The existence of huge non-performing loans focuses to adopt new techniques for evaluation of credit proposal, increases or decreases in credit lines, transaction authorizations, balance consolidation, collection of credit, and other related accounts servicing and management practice. The general feeling in financial academic circle is that financial as well as non financial information was not being collected and significantly used in appraisal of credit and making granting decisions, and if it was used, the suspicion was that the information was negligibly considered. For making loan decision, it is necessary to adequate analyses of financial as well as non financial aspects/issues of borrowers and their businesses because inadequate lending risk assessment contributes to sizeable and growing non-performing loans (Zamaroczy 1992; Sundararajan 1992; Borish et al. 1995; Backstrom 1999; Meyer 2000). But government directions sometimes narrow the true appraisal of credit proposal. In a number of economies, banks were persuaded by government to lend heavily to companies that were not commercially viable. This policy lending[†] destroyed the banks' incentive to exercise credit judgment and allowed the companies to become over leveraged and thus vulnerable to economic downturn (Carse 1999; Honohan 1997; Morris, et al.1990). Existence of huge classified (Non-performing) loans in Bangladesh and around globe is the main factor for the suspicion of poor credit management. The following subsections are enumerated here to portray the severest of non-performing loans in Bangladesh and around the world.

1.2.1 Scenario Analysis of Classified Loans/Non Performing Loans[†] of Banks in Bangladesh

Bangladesh has been suffering from non performing loans since its independence and it increased gradually up-to 1999. Government has been taking various reform programs since 1991. As a result, volume of non-performing loans has been decreasing from 2000. At end of 2005 average non performing loans of all commercial banks reached at 13.55 percent. Trends of classified loans of all

[†] Policy lending means government's persuasion to lend heavily to companies that were not commercially viable **Carse (1999)**.

[†] According to BRPD circular No.16 of 1998 of BB all overdue loans are termed as classified loans. It also classifies all overdue loans as substandard, doubtful, and bad and loss. Substandard loans are loans which are classified more than 6 months but not more than 9 months. Doubtful loans are loans which are classified more than 9 months but not over12 months. Bad and loss are the loans which are classified for 12 months and more. Classified loans and non performing loans are synonymously used here.

Nationalized Commercial Banks (NCBs), Private Commercial Banks (PCBs), Development Financing Institutions (DFIs) and Foreign Commercial Banks (FCBs) from 1995-2005 are presented in the next subsections.

1.2.1.1 Trend of Classified Loans of all Nationalized Commercial Banks in Bangladesh (NCBs)

Nationalized commercial banks have been suffering from huge classified loans since inception of Bangladesh. Government took various actions to reduce the classified loans levels. Levels of classified loans were increased up to 1998 and then trend is decreasing. The next table exhibits trends of classified loans levels of all nationalized commercial banks in Bangladesh from 1995 to 2005.

Table # 1.1
Shows Trends of Classified Loans of all Nationalized Commercial Banks (NCBs) in Bangladesh from 1995-2005

(Tk.in Crore)

Year	Total Loans	Compound growth rate	Substandard Loans	Doubtful Loans	Bad and loss Loans	Total Classified Loans**	% of Classified Loans
1995	19,205.77*		803.83	444.11	4705.93	5,953.87	31.00%
1996	21,792.83	13.47%	1,056.61	839.79	5203.69	7,093.49	32.55%
1997	24,350.37	11.74%	907.45	1,319.78	6677.79	8,905.02	36.57%
1998	26,635.56	9.38%	554.31	736.15	9464.72	10,755.18	40.38%
1999	28,256.93	6.09%	730.92	1,119.89	11041.39	12,892.20	39.07%
2000	30,430.91	7.69%	N/A***	N/A	N/A	11,733.79	38.56%
2001	33,029.21	8.54%	763.71	783.37	10679.99	12,227.07	37.02%
2002	36,111.00	9.33%	N/A	N/A	N/A	12,179.82	33.73%
2003	36,406.96†	0.82%	N/A	N/A	N/A	10,568.94	29.03%
2004	39,350.90†	8.09%	N/A	N/A	N/A	9,955.78	25.30%
2005	46,951.80†	19.32%	N/A	N/A	N/A	10,024.21	21.35%

Source: BRPD, BB.

Notes: * All figures are at year end December
**Total classified loans/ Non-performing loans: Total classified loans are the summation of substandard, doubtful, and bad and loss loans.
*** N/A: Not Available.

† Researcher has calculated the figures by using total classified loans and percentage of classified loans figure.

Table 1.1 presents levels of NPLs as percentage of gross loans of all Nationalized Commercial Banks (NCBs) in Bangladesh from 1995-2005. Total loans of all NCBs in Bangladesh in 1995 were Tk.19, 205.77 crore and its corresponding classified loans were Tk.59, 53.87 crore. In 2005, total loans were Tk.46, 951.80 and it is 144.46 percent higher than 1995. Total classified loans in 1995 were Tk.59, 53.87 crore and it increased to Tk.10, 024.21 crore in 2005 and it is 83.13 percent higher than 1995. In 2005, classified loans constitute 21.35 percent of total loan portfolio of all NCBs. Table also indicates that non- performing loans of NCBs were Tk.5,953.87 crore in 1995 and it gradually increased to Tk.10,024.21crore in 2005. In percentage terms it is increased from 31% in 1995 to 40.38% in 1998. It was the highest (40.38%). After 1998, it was gradually decreased and in 2005 it was increased at 21.35%.

1.2.1.2 Trends of Classified Loans of Private Commercial Banks (PCBs)

The history of private commercial banks in Bangladesh is not so long. After independence, the then government nationalized all private commercial banks by presidential order 1972. In early eighties, government turn her stand and again encouraged private investment in the banking sector and gave license to operate private commercial banks in Bangladesh. From very beginning of their operations, private commercial banks have been suffering from huge classified loans and in the year 1995 it reached at 39.43 percent. Existence of huge non-performing loans drawn attention to the government and government took various reform programs in financial sector. After taking financial sector reform program by government, the levels of classified loans in private commercial banks become downward trend from 1996 and it is continuing to till. The following table exhibits the classified loans level of all private commercial banks in Bangladesh from 1995-2005.

Table #1.2
Trends of Classified Loans of all Private Commercial Banks (PCBs) in Bangladesh from 1995-2005

(Tk. In Crore)

Year	Total Loans	Substandard Loans	Doubtful Loans	Bad and loss loans	Total classified loans	% of classified loans
1995	9,845.38*	492.97	780.93	2,607.77	3,881.67	39.43%
1996	11,090.50	428.74	514.65	2,913.04	3,856.43	34.77%
1997	12,610.17	215.26	443.90	3,302.79	3,961.95	31.42%
1998	14,190.65	221.02	507.09	3,915.41	4,643.52	32.72%
1999	16,709.19	129.78	508.09	3,887.40	4,525.27	27.09%
2000	20,998.51	N/A**	N/A	N/A	4,620.88	22.01%
2001	26,901.05	184.23	195.74	4,186.75	4,566.72	16.98%
2002	32,941.27	N/A	N/A	N/A	5,483.95	16.65%
2003	39,834.27†	N/A	N/A	N/A	4,951.40	12.43%
2004	49,174.09	N/A	N/A	N/A	4,194.55	8.53%
2005	63,056.76	N/A	N/A	N/A	3,543.79	5.62%

Source: BRPD, BB.

Notes * All figures are at year end December
** N/A : Not Available

Table 1.2 exhibits classified loans levels of all Private Commercial Banks (PCBs) in Bangladesh from 1995-2005. In the year1995, total loans were Tk.9, 845.38 crore and it increased to Tk.63, 056.76 crore in 2005. It is 540.47 percent higher than 1995. Total classified loans in 1995 were Tk.3, 881.67 crore and it reached at Tk.3, 543.79 crore in 2005. It is 8.70 percent lower than 1995. In 1995, classified loans were 39.43 percent of total loans and in 2005 it was 5.62 percent.

1.2.1.3 Trends of Classified Loans of all Development Finance Institutions (DFIs)

Development finance institutions are specialized banks, were established to develop industrial base in Bangladesh. But these banks have been suffering from huge classified loans from their inception. Among the banks in Bangladesh, classified loans level of Development finance institutions is the highest. Bangladesh government has taken several steps to reduce the classified loans of these banks and as a result, classified loans levels have been downward trend since 1999. The following table shows the classified loans levels of all development finance institutions in Bangladesh from 1995 to 2005.

† Researcher has calculated the figures by using total classified loans and percentage of classified loans figure.

Table #1.3
Shows the Classified Loans of Development Financing Institutions (DFIs) from 1995-2005

(Tk. in Crore)

Year	Total loans	Substandard loans	Doubtful loans	Bad & loss loans	Total classified loans	% of classified loans
1995	N/A*	N/A	N/A	N/A	N/A	N/A
1996	N/A	N/A	N/A	N/A	N/A	N/A
1997	6,651.57**	235.86	259.82	3,875.42	4,371.10	65.72%
1998	8,864.93	111.57	281.46	5,519.61	5,912.64	66.70%
1999	9,740.23	384.24	320.14	5,628.65	6,333.23	65.02%
2000	10,176.53	N/A	N/A	N/A	6,366.72	62.56%
2001	10,784.92	921.74	297.92	5,445.06	6,664.73	61.80%
2002	10,964.49	N/A	N/A	N/A	6,161.33	56.19%
2003	9,971.82†	N/A	N/A	N/A	4,727.64	47.41%
2004	10,423.19†	N/A	N/A	N/A	4,467.38	42.86%
2005	11,010.27†	N/A	N/A	N/A	3,839.28	34.87%

Source : BRPD, BB.

Notes * N/A : Not Available
**All figures are at year end December

Table 1.3 presents the levels of classified loans of all Development Finance Institutions (DFIs) in Bangladesh from 1995-2005. Table exhibits that total classified loans constitute 34.87 percent of total loan portfolio of all DFIs in 2005. The above table also indicates that amount of classified loans of DFIs were Tk.4, 371.10 crore in 1997 and it reached at Tk.3, 839.28 crore in 2005. In percent, it is the highest in the year 1998 (66.70%) and then decreased to 34.87% in the year 2005.

1.2.1.4 Trends of Classified Loans of all Foreign Commercial Banks (FCBs) from 1995-2005.

In 1972, there were four foreign banks operating in Bangladesh. Now the number is thirteen. From very beginning of their operation, these banks have been operating with international level classified loans and it has been decreasing day by day. In the year 1995 it was 5.40 percent and it reduced to 1.26 in 2005. The following table portrays the classified loans level of all foreign banks operating in Bangladesh.

† Researcher has calculated the figures by using total classified loans and percentage of classified loans figure.

Table #1.4
Shows Classified Loans of all Foreign Commercial Banks (FCBs) in Bangladesh from 1995-2005

(Tk. in Crore)

Year	Total loans	Substandard loans	Doubtful loans	Bad & loss loans	Total classified loans	% of classified loans
1995	1,977.38	3.59	4.01	99.09	106.69	5.40%
1996	2,216.96	4.64	1.44	98.47	104.55	4.72%
1997	2,615.04	8.11	3.48	82.06	93.65	3.58%
1998	3,041.35	26.38	21.81	77.69	125.00	4.14%
1999	3,379.95	10.30	25.75	92.51	128.56	3.80%
2000	3,836.91	N/A	N/A	N/A	129.64	3.38%
2001	4,232.48	.87	15.91	124.14	140.93	3.33%
2002	5,257.22	N/A	N/A	N/A	137.12	2.61%
2003	6,400.74†	N/A	N/A	N/A	171.54	2.68%
2004	7,249.33†	N/A	N/A	N/A	108.74	1.50%
2005	8,264.28†	N/A	N/A	N/A	104.13	1.26%

Source: BRPD, BB.

Notes : N/A : Not Available

Table 1.4 presents the level of classified loans of all Foreign Commercial Banks (FCBs) in Bangladesh from 1995 to 2005. Classified loans were 5.40 percent of total loan portfolio in the year1995 and 1.26 percent in 2005. The above table indicates that non- performing loans of all FCBs is Tk.106.69 crore in 1995, and it gradually decreased to Tk.104.13 crore in 2005. In percent it is decreased from 5.40% in 1995 to 1.26% in 2005.

1.2.1.5 Comparative Trends of Classified Loans of all Commercial banks in Bangladesh

Classified loans levels of NCBs, PCBs, FCBs and DFIs in Bangladesh are presented in the table below:

† Researcher has calculated the figures by using total classified loans and percentage of classified loans figure

Table # 1.5
Comparative Classified Loans of all Commercial banks in Bangladesh from 1995-2005

(Tk. in Crore)

Year	Total Loans	NCBs	PCBs	FCBs	DFIs	Total Classified Loans	Average (percent)
1995	31,028.53*	5,953.87	3,881.67	106.69	N/A**	9,942.23	32.04%
1996	35,100.29	7,093.49	3,856.43	104.55	N/A	11,054.47	31.49%
1997	46,227.15	8,905.02	3,961.95	93.65	4371.10	17,331.72	37.49%
1998	52,732.49	10,755.18	4,643.52	125.00	5912.64	21,436.34	40.65%
1999	58,086.30	12,892.20	4,525.27	128.56	6333.23	23,879.26	41.11%
2000	65,442.86	11,733.79	4,620.88	129.64	6366.72	22,851.03	34.91%
2001	74,947.66	12,227.07	4,566.72	140.93	6664.73	23,599.45	31.49%
2002	85,273.98	12,179.82	5,483.95	137.12	6161.33	23,962.22	28.10%
2003	91,818.93†	10,568.94	4,851.40	171.54	4727.64	20,319.53	22.13%
2004	1,06,216.67†	99,55.76	4,194.55	108.74	4467.38	18,726.43	17.63%
2005	1,29,235.49†	10,024.21	3,543.79	104.13	3839.28	17,511.41	13.55%

Source: BRPD, BB.

Notes *All figures are year end December
**N/A : Not Available.

Table 1.5 shows the comparative and average position of classified loans of all banks in Bangladesh from 1995 to 2005. From table it is clears that trend of classified loans was increased from 1996 to 1999 and decreased from 2000 to 2005. In the year 1999 it was the highest (41.11%) and in 2005 it was the lowest (13.55%).

† Researcher has calculated the figures by using total classified loans and percentage of classified loans figure

1.2.1.6 Comparative Trend of Classified Loans of all NCB's, PCB's,FCB's and DFI's in Bangladesh

To make easy comparison, it is necessary to present comparative trends of classified loans of all commercial banks in Bangladesh. The following table shows the comparative trends of classified loans of all commercial banks in Bangladesh.

Table # 1.6

Shows the Comparative trend of Classified Loans of NCB's, PCB's,FCB's and DFI's in Bangladesh from 1995-2005

Year	NCBs	PCBs	FCBs	DFIs	Average
1995	31.00%*	39.43%	5.40%	N/A**	32.04%
1996	32.55%	34.77%	4.72%	N/A	31.49%
1997	36.57%	31.42%	3.58%	65.72%	37.49%
1998	40.38%	32.72%	4.14%	63.15%	39.18%
1999	39.07%	27.09%	3.80%	65.02%	41.11%
2000	38.56%	22.01%	3.38%	62.56%	34.91%
2001	37.02%	16.98%	3.33%	61.80%	31.49%
2002	33.73%	16.65%	2.61%	56.19%	28.10%
2003	29.00%	12.41%	2.70%	47.40%	22.10%
2004	25.30%	8.50%	1.50%	42.90%	17.60%
2005	21.35%	5.62%	1.26%	34.87%	13.55%

Source: BRPD, BB

Notes *All figures are at year end December

**N/A : Not Available.

Table 1.6 shows the comparative trends of classified loans of all commercial banks in Bangladesh from 1995 to 2005. It is clear from above table that, average classified loans of DFIs were always the highest and it is the lowest in FCBs. In the year 1995 and 1996 the levels of classified loans of PCBs were higher than NCBs. But after 1996, levels of classified loans of PCBs were lower than NCBs. The classified loans levels of NCBs were increased from 1995 to 1998. From 1998, the trend was decreasing. In NCBs, it was the highest in the year 1998 and the lowest in 2005. In PCBs the trends were always decreasing and it was the highest in 1995(39.43%) and the lowest in 2005(5.62%). In case of FCBs, the trends were always decreasing and it was the highest in 1995(5.4%) and the lowest in 2005(1.26%). In DFIs, it was the highest in the year 1997(65.72%) and the lowest in 2005 (34.87%). On the average the rate of classified loans of all banks in Bangladesh was the highest in the year 1999

(41.11%) and the lowest in 2005 (13.55%). This shows that ownership has an effect on the level of classified loans.

1.2.1.7 Ratio of Net Non-performing Loans[†] by types of Banks in Bangladesh

Bangladesh Bank has made it mandatory for all banks in Bangladesh to make a certain provision on their classified loans. Some banks made more provision than requirement and some did not. Following table exhibits the net non performing loans levels of all banks in Bangladesh.

Table # 1.7

Shows the Ratio of Net Non-Performing Loans (NNPLs) by types of Banks in Bangladesh from 1997-2004

Year	NCB	PCB	FCB	DFI	Average
1997	31.40%	25.10%	-0.5%*	56.90%	30.70%
1998	35.60%	26.30%	0.10%	59.10%	34.40%
1999	41.30%	21.20%	0.90%	58.50%	35.60%
2000	34.10%	15.50%	-0.10%	54.60%	28.80%
2001	32.80%	10.50%	-0.30%	54.50%	25.60%
2002	30.10%	10.50%	-0.40%	48.00%	22.60%
2003	28.30%	8.30%	0.10%	38.30%	18.80%
2004	17.60%	3.40%	-1.50%	23.00%	9.80%

Source: Bangladesh Bank Annual Repot 2004-05

Note * It is negative because banks have made more provision than required.

Table 1.7 shows the ratio of net non-performing loans (NNPLs) levels of all banks in Bangladesh from 1997 to 2004. Table indicates that ratio of NNPLs was the highest in DFIs (59.10% in 1998) and the lowest in FCBs(-1.5% in 2004). In NCBs, it was the highest in the year 1999(41.30%) and the lowest in the year 2004(17.60%).

In case of PCBs it was the highest in the year 1998(26.30%) and the lowest in the year 2004(3.40%). In FCBs, it was the highest in the year 1999(.90%) and the lowest in the year 2004(-1.50%). In case of DFIs, it was the highest in the year 1998(59.10%) and the lowest in the year 2004(23.00%). On the average it was the highest in the year 1999(35.60%) and the lowest in 2004(9.80%). This had an effect on the profit shown by the banks.

[†] Net non-performing loans are arrived after deducting provision from NPLs

1.2.1.8 Actual Provisioning in percentage of Required Provisioning of Banks in Bangladesh

Bangladesh Bank made it compulsory for all banks to make provision (it is defined in chapter 4) for their non performing loans. But some banks made more provision than required. The following table shows the actual provisioning in percentage of required provisioning of banks in Bangladesh.

Table # 1.8
Shows the Actual Provisioning in percentage of Required Provisioning of Banks in Bangladesh from 1999 to 2004

(In percentage)

Banks	**Y**	**E**	**A**	**R**	**S**
	1999	2000	2002	2003	2004
NCBs	36[†]	37	31	07	07
PCBs	61	68	82	75	83
FCBs	121	123	127	126	124

Source: IMF Country Report No 05/243 July 2005

Table 1.8 shows the actual provision in percentage of required provision of all banks in Bangladesh from 1999 to 2004. It is evident from table that provisioning of NCBs and PCBs were inadequate and between them NCBs are far behind from provisioning requirement. FCBs have been maintaining more provision than requirement since 1999.

1.2.1.9 Total Classified Loans by Category in Bangladesh

Total classified loans means summation of substandard, doubtful and bad and loss loans. Bangladesh Bank via its circular made mandatory to classify the total classified loans as substandard, doubtful and bad and loss. The following table exhibits the types of classified loans of all banks in Bangladesh.

Table # 1.9
Shows the Total Classified Loans by Category in Bangladesh from 1999 to 2004

(In percent)

Classified loans	Y		E	A	R S
	1999	2000	2002	2003	2004
Classified	36*	30	28	22	18
Substandard	05	04	09	10	07
Doubtful	09	07	05	09	07
Bad & Loss	86	89	86	81	86
Total	100	100	100	100	100

Source: IMF Country Report No 05/243 July 2005

Note * All figures are at year-end.

[†] All figures are at year-end December. 36 percent means, out of required provision of Tk.100, banks made provision Tk. 36

Table 1.9 shows the total classified loans by category from 1999 to 2004. It is evident from table that lion share of classified loans is bad and loss category that has little chance of recovery. Bad and loss category loan is the highest in the year 2000(89%) and the lowest in the year 2003 (86%).

1.2.2 Non-Performing Loans: Cross Country Evidence and Bangladesh

The problem of NPL's is not only problem of Bangladesh; it is also an international problem. Banking sector in Developing Member Countries (DMCs) have been far more severe during the past ten years than those of industrial countries. Among the countries non-performing loans in Tajikistan is the highest (about 75%) followed by Azerbaijan (about 62%).

In Bangladesh, Peoples Republic of China and Pakistan it is more than 20%. On the other it is less than 10% in India, Bhutan, Indonesia, Malaysia, and Thailand (ADB Outlook-2004). In 19 DMCs, aggregate nonperforming loan was 17% at the end of 2002(ADB Outlook-2004). Following tables exhibit the scenario of non-performing loans around globe.

1.2.2.1 Ratio of Non-Performing Loans to Total Loans of Some Selected Countries

It is a truth that if there is a loan, there is a chance of nonperforming. But it can be minimized through proper credit management. Non-performing loan is a problem around world but the magnitude is widely different between developed and developing countries and even among the Asian countries. It is encouraging that the ratio of nonperforming loans decreased gradually over the years among developing countries and particularly in Asian countries. The table below exhibits the ratio of non-performing loans to total loans of some selected countries.

Table # 1.10
Shows the Ratio of Non-Performing Loans to Total Loans of Some Selected Countries from 1998 to 2003

(Figures are in Percent)

Country	Y	E	A		R	S
	1998	1999	2000	2001	2002	2003
Brazil	12.20	8.70	8.40	5.70	5.30	5.7
Chile	1.50	1.70	1.7	1.6	1.8	1.80
Mexico	11.3	8.9	5.8	5.1	4.6	3.7
U. K.	3.2	3.0	2.5	2.6	2.6	2.2
U.S.A.	1.0	.9	1.1	1.4	1.6	1.3
Japan	5.4	5.8	6.1	6.5	8.9	7.2
France	6.3	5.7	5.0	5.0	5.0	4.9
Germany	4.5	4.6	5.1	4.9	5.0	----
Greece	13.6	15.5	12.3	9.2	8.1	8.4
Italy	9.1	8.5	7.7	6.7	6.5	-----
Russia	17.3	13.4	7.7	6.3	6.5	6.1
Turkey	6.7	9.7	9.2	29.3	17.6	14.2
Argentina	5.3	7.1	8.7	13.2	17.5	22.7
China	-----	28.5	22.4	29.8	25.5	22.0
India	**14.4**	**14.7**	**12.7**	**11.4**	**10.4**	**8.8**
Indonesia	48.6	32.9	18.8	11.9	5.8	-----
S. Korea	**7.4**	**8.3**	**6.6**	**2.9**	**1.9**	**2.3**
Malaysia	18.6	16.6	15.4	17.8	15.9	14.8
Philippines	11.0	12.7	14.9	16.9	15.4	15.2
Thailand	42.9	38.6	17.7	10.5	15.8	15.5
Sri Lanka	**16.6**	**16.6**	**15.0**	**16.9**	**15.7**	**13.9**
Bangladesh	**40.7**	**41.1**	**34.9**	**31.5**	**28.0**	**22.1**
Pakistan	**23.1**	**25.9**	**23.5**	**23.3**	**23.7**	**20.7**

Source: Global Financial Stability Report, April 2004.

Table 1.10 provides statistics of ratio of NPLs of some selected countries. Table indicates that NPLs ratio is the highest in Argentina (22.7%) and it is followed by Bangladesh (22.1%), China (22.0%) and Pakistan (20.7%) The level of NPLs is the lowest in the U.S.A (1.3%) and it is followed by Chile (1.8%) and the U. K (2.2%). It is evident from table that developing countries are suffering from huge NPLs and the trend of NPLs in Asia is the highest (average 14.25%). Among the Asian countries NPLs is the highest in Bangladesh (22.1%) and the lowest in South Korea (2.3%). Among SAARC countries it is also the highest in Bangladesh and the lowest in India (8.8%). It is encouraging that ratios of nonperforming loans around globe and particular in Asian countries is decreasing.

1.2.2.2 Global Non-Performing Loans in 2003

In the last decade Asian emerging economies had faced a financial crisis. In most of the emerging economics banks faced huge non performing loans. At present, Japan, China and India are the leading expanding economics. Extension of the economic activity leads to the extension of credit and it is also associated with the bad effect on credit i.e. non-performing loans. Asian countries have the lion share of global non performing loans. The following table will show the share of global nonperforming loans.

Table # 1.11
Shows the Global Non-Performing Loans in 2003

Country	NPLs (In US $ Billion)	Share in Global (In percent)
Japan*	330	25.4
China	307	23.6
Taiwan	19.1	1.5
Thailand	18.8	1.5
Philippines	9.0	.7
Indonesia	16.9	1.3
India	30.0	2.3
Korea	15	1.2
Total	**746.0**	**57.4**
Asia	**1000.0**	**76.9**
Germany	283	21.8
Turkey	8.0	.6
Global	**1300**	**100.0**

Source: Global NPLs Report 2004. Ernst and Young.

Note * Non performing loans of all financial institutions

Table 1.11 shows the level of global non-performing loans around the globe. It is clear from table that total non-performing loans in Japan are US$ 330 billion and it constitutes 25.40% of total non-performing loan in the globe. In the Asia, it is US$1000 billion and it constitutes 76.9% of the global NPLs.

1.2.2.3 Comparative Interest rates of Deposits and Loans in Bangladesh and some other Neighboring Countries in the SAARC Region

Interest rate and deposit rate play vital roles in formation of savings and in extending credit as well as in industrialization. If entrepreneurs find external financing less costly, then they will be encouraged in expanding their business. Among the SAARC countries lending interest is the highest in Bangladesh. The following table exhibits the interest rates on deposits and loans in the SAARC countries.

Table # 1.12
Shows the Interest rates in Bangladesh and some neighboring countries in the SAARC region

Annual interest rate percent	India/1[†]			Pakistan/2			Sri Lanka/3			Bangladesh/4		
	02 Mar	03 Mar	03 Dec	01 June	02 June	03 Dec	01 Dec	02 Dec	03 Dec	03 June	03 Dec	04 June
Deposits	8.0	5.8	5.4	5.0	4.2	1.4	10.8	7.5	5.3	6.3	6.3	5.7
Loans	11.5	11.1	10.8	14.0	12.1	5.7	14.3	12.2	9.3	12.8	12.4	11.0

Source: Bangladesh Economic Review 2004

Table-1.12 presents the interest rates of deposits and lending of some SAARC countries and Bangladesh. It is revealed from the table that prevailing interest rate in Bangladesh is comparatively high. In December-2003 average interest rate on loans in Bangladesh was 12.4 percent, whereas, at the same time it was 5.7 percent in Pakistan, 9.3 percent in Sri Lanka and 10.8 percent in India.

1.2.2.4 Comparison of Cross Country Spread[†] and Bangladesh

High spread is a bad sign in credit. It indicates high administrative cost and profit of lending. Spread is lowest in developed economies and highest in developing economy. Following table exhibits the comparison of cross country spread and Bangladesh.

[†] 1/ India: Deposit rates 1 year term deposit and lending rate- prime lending rate.
: 2/Pakistan: Deposit and lending rates weighted average.
: 3/ Sri Lanka: Deposit rate-weighted average, lending rate-weighted average of prime lending rate.
: 4/ Bangladesh: deposit and lending rates weighted average

[†] Spread is the difference between lending interest rate and deposit interest rate

Table # 1.13
Shows the Comparison of Cross Country Spread and Bangladesh

Country	**Spread**
Australia	4.48*
Bangladesh	6.39
Brazil	33.81
China	3.52
Indonesia	5.29
Korea	.56
Malaysia	3.30
Philippines	2.40
Sri Lanka	6.40
Thailand	4.40
United Kingdom	1.71
U.S.A.	2.61
Uruguay	32.95

Source : IMF International Financial Statistics Database.

Note: * All figures are for year 2000.

Table 13 exhibits the spread of countries around the globe. Among the countries, spread is the highest in Brazil (33.81) followed by Uruguay (32.95) and the lowest in Korea (.56) followed by the U.K (1.71). In Bangladesh it is 6.39.

1.3 Causes of Poor Credit management vis-à-vis Non-performing Loans

Researchers, academicians, policy makers and regulators identified various weaknesses of weak credit management and causes of non-performing loans around the globe. Borrish et al. (1995); and Muller (1994) identified inadequate credit policies and poor credit risk management were the causes of non-performing loans. They viewed that credit policy is the guidelines for doing credit activities. It should contain adequate policies of credit. For making loan decision, it is necessary to adequate analyses of financial as well as non-financial information of the borrowers. Zamaroczy (1992); Sundararajan (1992); Borish et al. (1995); Backstrom (1999); and Meyer (2000) accused inadequate lending risk analysis for sizeable and growing non-performing loans. In doing credit analysis, a credit officer may overestimate the sales or underestimate the cost. This process of over estimation of sales and underestimation of cost in financial analyses may result failure of loan repayment

(Anderson and Khambatta, 1981; Alam 2000; Mahmood 2000). Desario (1999) and Alam (2000) identified absence of proper system for evaluating borrowers by the bank official was the prime cause of bad lending. Subjective credit risk rating approaches are widely used around world for making loan decision. The success/accuracy of decisions depends largely on the experience and skill of credit officers. But in most cases credit rating reflected the subjective preferences of credit officers and their superiors rather than the underlying credit risk of client (Waffli and Hunt1999; Quoted from Altman and Haldeman1995, 11). Waffli and Hunt1999 accused preferences of credit officers and their superiors rather than accurate assessment of credit risk of client for bad loans.

Credit-granting decision should depend on the judgment about creditworthiness of borrowers. But it is common in less developed countries to pressurize the concerned credit officers for granting loans by businessmen connected with political parties, top bureaucrats and top bank management (Sundararjanan 1992; Islam et al.1999; Sobhan 2000; Khallily et al. 2001). Political pressure undermines the quality of assessing credit risks; supervision of the loan accounts and regular recovery. Rama (1994, 32) found in his research that politicians often promise to borrowers to help them in getting credits and create such a situations where credit officers are compelled to follow wrong procedures for granting loans. Carse (1999); Honohan (1997); Morris, et al. (1990) identified policy lending[6] is main culprit for huge non performing loans. They views that banks in a numbers of economies were persuaded by governments to lend heavily to companies that were not commercially viable. This policy lending destroyed the banks' incentive to exercise credit judgment and allowed the companies concerned to become over leveraged and thus vulnerable to economic downturn. Poor credit management as well as non-performing loans is the results of political influences (Carse 1999; Khallily et al. 2001). Every credit officer should have independence in their work. If banks credit culture lacks this needed discipline, any credit risk management would be fruitless (Muller 1994). It is found that lack of information constrained to differentiate sound and viable company from unworthy ones, and measurement of market risk in the various risk measurement model to judge the creditworthiness of borrowers (Jyotirmayee 2000, 31; Backstorm 2000). Lenders in developing countries find it difficult to collect information about borrowers and their businesses to assess the creditworthiness of the borrowers. Information is often not extensive, prompt or accurate (Murgatroyd 1993, 4). Sundararajan (1992, 13) identified the inadequacy of loan recovery and bankruptcy laws, dominance of large loan customers, the absence of adequate credit analysis are responsible for non-performing loans. Most of the less developed countries are characterized by the absence of enough legal infrastructures; the laws, courts, and impartial judges to maintain loan repayment discipline (Jyotirmayee 2000, 31; Meyer 2000, 9; Borish et al. 1995, 25). Non repayment of loan is associated with the financial solvency of borrowers, but default is a common phenomenon for both solvent (habitual defaulter[†]) and insolvent borrowers (Khambatta 1981; Karim 1991). Proper credit culture and adequate credit skills are preconditions for preventing bad loans. But insider lending causes not much opportunity to assess credit risk, which is the main, cause not to develop a proper credit culture or adequate credit skills. Carse (1999); Mahmood (2003) viewed that high interest rate of deposits forced bank to lend high risk borrowers at higher interest rate, which in turn, jeopardize the financial health of the banks.

The credit committee in credit decision may weaken the credit management. The most common practice in credit decision is a group decision i.e. credit committee. Credit committee generally formed by senior management on the basis of the rank regardless of an individual functional responsibilities or actual ability needed to participate in credit decision (Buyske 1998, 45). Buyske (1998, 46) also stated that, the assumptions of the credit officers such as big companies are better in credit risk than smaller ones, state owned enterprises are better than private companies, foreign currency risk are the problem of the borrowers not the bank are frequently seen in our banks and it weakens the credit management. Credit officers use various models in order to making loan granting decision. Credit officers use various data in these models and obtain various outputs that lead credit granting decision. But the models are characterized by a lack of theoretical rigor or practical testing. Inadequacy of historical data and sound understanding of the relationships between the variables impede the usefulness of models as well as weaken the loan granting decision (Buyske 1998, 46).

[†] Habitual defaulters means the defaulters who have ability to repay the loan but unwilling to repay it

1.4 Controversy about Causes of Weak Credit Management vis-à-vis Non Performing Loans

There exists a controversy over the causes contributing to accumulation of huge amount of non-performing loans. At one extreme, one group believes bank executives knowing fully well that borrowers/applicants have applied for loans with an objective of not returning the fund. But they grant loans because of pressure from top policy making persons. Some times bank executive manipulates papers in collaboration with loan applicants to support loan sanction. In this case, personal benefits get priority over the bank's interest. In some cases, political pressure is so heavy that bank executives have to yield to safe their job. There are some instances where bank executives lost their jobs for giving objection to weak applicants. Political pressure and fear work well in the process of loan sanction. Every thing including application preparation, evaluation and sanction is done by internal bank executives. At other extreme, it may be that every step of credit management is properly performed. Still there may be chances that loans become classified due to changes in political, economic and social conditions.

Whatever might be the causes of non-performing loans, credit officers must be take measures to reduce their extent to safeguard the interest of bank's investors. Measures may include (i) Segregation of responsibilities, (ii) Outsourcing some of the responsibilities, (iii) Training of the credit officers in loan application processing and loan monitoring and (iv) strengthening the internal control system of banks.

1.5 Research questions and broader issues surrounding research questions

This thesis will seek to tease out some aspects of credit management via a focused examination of four interrelated aspects: namely, credit investigation, credit analysis, credit monitoring and reviewing, and handling default credits of banks in Bangladesh. Table 1.14 shows the main research question and sub-research questions set for this study.

Table # 1.14
Research questions

Main research question
Why have financial institutions in Bangladesh, banks in particular, been suffering from huge amount of non-performing loans since their inception?
Sub-research questions
1. Are credit officers in Bangladesh in need and therefore, collecting financial as well as non-financial information about borrowers, their businesses and products where it is available?
2. Are credit officers in Bangladesh in need and, therefore analyzes financial as well as non-financial information to asses the creditworthiness of borrowers?
3. Are credit officers in Bangladesh monitoring and reviewing the performance of borrowers and upgrading it?
4. Are default loans resolution techniques in Bangladesh effective?
5. What are the causes of loan default in Bangladesh?

1.6 Rationale of the Study

The general feeling, in the financial academic and policy maker circle, is that financial as well as non-financial information is not being collected and significantly used in lending decision in Bangladesh. Politician influence, top management wills, society man[†] influence, CBA and credit officer's personal gain are playing vital role (the main influential factors) in lending decision. In most cases, credit officers make no effort to collect information about borrowers and their business to assess creditworthiness of potential borrowers. In few cases, information is collected but is negligibly considered. The main reasons of this suspicion are attitude of credit officers, shortage of adequate trained manpower and volume of classified loans. In Bangladesh, the base of capital market is weak (Muinul 2005) and sometimes it is difficult for small entrepreneurs to raise fund from capital market. Therefore, only avenue for small entrepreneurs is bank finance. But high rate of non-performing loans compelled banks to charge high interest rate, and it makes investors fund most costly (Raquib 1999). Provision for bad debts heavily influences spread. It is about 6% to 7% in Bangladesh.

Non-performing loan is not only problem in Bangladesh. It exists all over the world. But its magnitude is different among countries even among banks in Bangladesh. It

[†] Society men are those who are influential in the society

varies from single number to as much as 34.87 percent. Average non-performing loans have been experiencing downsizing tendency since 2000. But Muinul (2005) argue that it is a clever manipulation of figures. In his word

> A politically motivated watering down of the classification of defaulted bank loans in 2000 was instrumental in significant downsizing of the actual amount of default loans after that point of time. But, that clever manipulation could not hide the fact that about 87 percent of classified bank loans are 'bad loans' or losses with slim or no chances of repayment. After the introduction of the 'write off' system, which removes the bad loans from the banks' balance sheets, the bad loans are now in the process of being removed from the quarterly published statements of classified loans, thereby giving a false impression that the proportion of defaulted loans of the banking system has been coming down gradually.

Muinul (2005) also viewed that main cause of non-performing loans is management inefficiency. Empirical data suggest that share of non-performing loans in Bangladesh is one of the highest in the world. At the same time, interest rate is also the highest. Naturally the cost of capital of genuine businessmen is also high. This can never be a good sign for a growing economy. Therefore, attempts should be made to identify the causes contributing to this scenario. Some research have done prior this but research attempts so far have ignored some important issues including credit management by loan giving institutions. In this study, attempts have been made to address two questions: (i) How far it is true that bad loans were bad before their approval? and (ii) how far it is true that banks do not make any bad loans?

To uncover the answer of above questions, the study attempts (i) to study credit files of sample banks to explore actual credit management process followed by banks in Bangladesh; (ii) to measure strengths or weaknesses of it and (iii) to identify the causes of non performing loans by the case study and by the opinion survey. It is hoped that the research findings will be helpful for academicians, policymakers, researchers, and credit officers.

1.7 Objectives of the Study

The motivation of this research is two folds. Firstly, the researcher is directed to portray the analysts, academicians, policymakers and researchers concern about the development of an efficient and effective credit management, and secondly, to explore, to describe, to analyze, and to evaluate the effectiveness and efficiency of credit management in Bangladesh. Another aim of the study is also to investigate the question whether commercial lending officers in Bangladesh are in need and collect financial as well as non financial information, where it is available, in arriving at a decision to give or not to give a loan to a borrower. Broadly objectives of the study are grouped into two: (a) To appraise whether majority of the loans were bad before their sanction; and (b) To evaluate the credit management process followed by banks in Bangladesh.

The specific objectives of this study are to:

1) Study steps of credit management process in Bangladesh;
2) Study whether banks in Bangladesh have any written credit policy;
3) Study whether banks in Bangladesh have any credit investigation policy;
4) Study what aspects of credit are investigating by credit officers to collect information?
5) Study from where credit officer in Bangladesh are collecting information;
6) Recommend the probable sources from where credit officer can collect information;
7) Assess performance of credit investigation of banks in Bangladesh;
8) Study whether banks in Bangladesh have any credit analysis policy;
9) Study what aspects credit officer are analyzing in credit analysis?
10) Study whether credit officer are analyzing adequate aspects in credit analyses;
11) Assess performance of credit analysis in Bangladesh;
12) Study whether banks in Bangladesh have any credit monitoring and reviewing policy;
13) Study what aspects credit officer are monitoring and reviewing in monitoring and reviewing performance of borrowers and their business?
14) Assess present credit monitoring and reviewing performance of banks in Bangladesh;
15) Study what are the techniques credit officers in Bangladesh are using for handling problem credit?
16) To assess performance of present problem credit handling techniques of banks in Bangladesh;
17) Study whether their exists symptoms in the credit files that loan will become non-performing in future;
18) Identify the causes of loans default and
19) Make policy recommendations

1.8 Scope of the Study

Credit management process starts with strategies plan for target markets and end with recovery of credit. This process involves various steps (Which is described in chapter 3). Due to time and resources constrained, it is not possible to take all these steps under purview of this study. The study gives emphasis on the major steps of credit management viz. (i) credit investigation, (ii) credit analysis, (iii) credit monitoring and reviewing and (iv) handling problem credit. Attempts are made to study existing literature relating to steps of credit management and theoretical framework. The mixed methods procedures have been followed in this study. Initial stage of it is qualitative method and it is followed by quantitative method. In qualitative phase, attempts have been made to explore actual credit management process of banks through case studies. In the case study, only default loan cases from sample banks have been selected for the study. In the opinion survey, three subjects groups: namely (i) Credit officers; (ii) Bad Borrowers and (iii) Good Borrowers are selected. The opinion survey covered only the Dhaka metropolitan city area.

CHAPTER 2

OVERVIEW OF RELATED LITERATURE

2.1 Overview

Credit management involves effective processing of the entire loan transaction. Tasks of sound credit management are proper evaluation of credit risk; accurate documentation and security agreements; systematic monitoring the progress of credit; frequent review the performance of borrowers; and efficient handling the problem loans in order to minimize loan default and to maximize institutions welfare. Sound credit management ensures efficient allocation of scare financial resources. It supports broader national policy objectives-notably, allocating scare financial resources efficiently in order to foster economic growth and minimize losses to the economy (Diana et al. 1997, 31). Literature relating to credit management can be divided into two principal types: literature relating to pre sanction and post sanction of loan. Steps of pre sanction credit are; formulation of credit policy; credit interview; credit investigation; credit analysis; credit structuring; documentation; and post sanction credit steps are; credit monitoring and review; problem loan handling and resolution; and recovery of credit. Literature relating to credit policy, credit interview and credit investigation are negligible in number but a plenty of scholarly literature relating to credit analysis, credit review, identification and handling of problem loans are available. In Bangladesh a little research has been done to identify the causes of loan default but empirical study hasn't yet conducted to explore actual credit management process are following by banks in Bangladesh and to measure its effectiveness. The existence of huge non-performing loans in the financial institutions in Bangladesh and poor research on credit management motivates the researcher to research on this topic. For easy understanding the review of existing literature relating to credit process and its management, relevant publications are grouped under the following heads:

(i) Studies on credit policy; (ii) Studies on credit interview; (iii) Studies on credit investigation; (iv) Studies on credit analysis; (v) Studies on credit analysis reports; (vi) Studies on credit approval; (vii) Studies on structuring of credit; (viii) Studies on credit documentation; (ix) Studies on credit monitoring and review; (x) Studies on identification and handling problem loans; and (xi) Studies on credit risk management.

2.2 Studies on Credit Policy

Review of existing literature found only two studies relating to credit policy of banks. Titles of these studies are:

(i) Establishing criteria and concepts for a written credit policy

(ii) Loan policy and management in banks

2.2.1 Establishing criteria and concepts for a written credit policy

Mott (1977) wrote this descriptive research article and it was published in the journal of commercial bank lending, **NY., U.S.A.** In this article, researcher commented that credit policy is like an anchor from which a boat swings with wind and tide. He viewed that in formulating credit policy, a bank has to keep in mind the restriction placed by law, administrative agencies and bank examiners. Credit policy reflects the wisdom of banks and intentions what banks actually want to do and what not. Credit policy clearly identifies the way of lending, preferred area of lending, loan pricing etc. He suggests that credit policy should give clearly the direction about: (1) Legal consideration; (2) Delegation of authority; (3) Types of credit extension; (4) Pricing of credit; (5) Preferred market area; (6) Credit standards; and 7) Credit granting process (Mott 1977, 4).

2.2.2 Loan policy and management in banks

Gupta (1995) carried out this exploratory research and it was published in **NIBM, Pune, India**. In this article, the researcher suggested the optimum components of a credit policy; developed a score based credit rating model and pricing strategies. He recommended thirteen aspects of a good lending policy. These aspects are: (1) Corporate mission statement; (2) Analysis of the present credit portfolio; (3) Broad objectives of the policy; (4) Preferred area of lending; (5) Discouraged areas of lending; (6) Strategies to achieve the above objectives; (7) Exposure limits; (8) Liquidity gap analysis; (9) Spread management; (10) Credit expansion policy; (11) Combating the growing menace of NPAs; (12) Industry wise specialization; and (13) Pricing strategy.

2.3 Studies on Credit Interview

Research found only one study relating to credit interview and its title is:

(i) The initial loan interview

2.3.1 The initial loan interview

Pace and Simonson (1977) presented this training feature titled the initial loan interview in New Mexico conducted by West Coast Bank and later it was published in the Journal of Commercial Bank Lending, **NY.,U.S.A.** In this feature the presenters described the goal and advantages of credit interview. They argued that goal of the loan interview is to collect necessary information to primarily judge the credit worthiness of borrowers. Researchers viewed that a well planned credit interview helps banks enhancing goodwill by acquainted with new borrowers; extension of business with new borrowers; collection of necessary data to make a judgment and to make an assessment of collection possibilities of credit. But researchers failed to describe who, when and how will conduct the loan interview, what approach he should use, what information he should collect.

2.4 Studies on Credit Investigation

By reviewing existing literature, researcher found two studies relating to credit investigation and the titles of these are:

(i) Credit investigation

(ii) The importance of the credit investigation functions to banks and their customers

2.4.1 Credit investigation

It is a training feature presented by **Pace and Simonson(1977))** in New Mexico conducted by West Coast Bank and later it was published in the Journal of Commercial Bank Lending, **NY.,U.S.A**. In this training feature researchers gave some guidelines of starting credit investigation. They suggested that before investigation, investigator should determine what information is needed, what strategies would follow and how much time and money it should be needed. They also suggested that, investigation should be both effective and efficient. Effective investigation means collection of all necessary information and efficient investigation means spent of minimum time and money. Researchers commented that a good credit investigation is an art and it can be developed through experience and training.

2.4.2 The importance of the credit investigation function to banks and their customers

Heinemeyer (1980) wrote this descriptive article and it was published by Robert Morris Associates **(NY. U.S.A.)** Journal named "The Journal of Commercial Bank Lending". The researcher here outlined the necessary qualifications of a credit investigator. He recommended that credit investigator should be knowledgeable in accounting, financial statement analysis, financial terminology, lending agreements, code of ethics for the exchange of credit information, legal ramifications involved in the exchange of commercial credit information, and sources of credit information.

2.5 Studies on Credit Analysis

Plenty of researches have done around world on credit analysis. Some important studies are reviewed in this study and titles of these studies are:

(i) Alternative accounting measures as predictors of failure
(ii) Financial ratios, discriminant analysis and the prediction of corporate bankruptcy
(iii) An experimental model of risk in consumer credit
(iv) A note on the impact of audit qualifications on lending and credit decisions
(v) Prior probability disclosure and loan officers' judgment: Some evidence of the impact
(vi) Tests of theories of information processing behavior in credit judgment
(vii) A philosophical foundation for credit analysis
(viii) Strategic analysis: The neglected element in the term credit decision
(ix) Predicting bankruptcy: If cash flow's not the bottom line, what is?
(x) Understanding cash flow: A key steps in financial analysis
(xi) Using tax returns as credit analysis tools
(xii) A study of the information needs of commercial loan officers
(xiii) Character assessment in the lending process
(xiv) Assessing borrowers performance in an economic slowdown
(xv) Qualitative analysis: Evaluating a borrower's management and business risks
(xvi) The art of making financial statements projections: A six-step visual model
(xvii) Loan policy and management in banks
(xviii) Using market- based information in credit analyzing

(xix) A multiple discriminant analysis of the financial health of selected public sector enterprises: An exploratory study

(xx) Credit repayment by small-scale industries

(xxi) The role of corporate life cycle in the prediction of corporate financial distress

(xxii) Analysts tools for detecting financial reporting fraud

2.5.1 Alternative accounting measures as predictors of failure

Beaver (1966) conducted this empirical study in **U.S.A.** and it was published in the Accounting Review. The purpose of his article was twofold: (1) to empirical verification of a priori beliefs regarding accounting measure; and (2) to develop a method of empirically evaluating alternative accounting measures. Researcher took 79 failed and 79 non-failed firms as sample, listed in Moody's Industrial Manuals during the period 1954 through 1964, inclusive. By using 14 ratios, the researcher found that failure status of the firms can be correctly predicted to a much greater extent than would be expected from random prediction.

One criticism of the research is the inclusion of current assets to total assets ratio. Current assets include inventory. It is evident from literature that inventory of failing firms are higher than solvent firms, and, as a result, current assets misleadingly inflated by the inclusion of inventory. The study calculated the trends of mean of financial items to compare failed firms and non-failed firms and done dichotomous classification test of individual ratio to test the prediction ability but single ratio individually cannot predict the failure status of a firm. The researcher failed to develop any equation model and score for classification. Altman (1968, 609) criticized Beaver works in this way,

> Traditional ratio analysis is no longer an important analytical technique due to unsophisticated manner in which it has been presented. The theory is that ratios, if analyzed within a multivariate framework, will take on greater statistical significance than the common technique of sequential ratio comparison.

2.5.2 Financial ratios, discriminant analysis and the prediction of corporate bankruptcy.

Altman (1968) conducted this empirical study in **U.S.A.** and it was published in the Journal of Finance. In this study, the researcher applied multiple discriminant statistical methodology to investigate the bankruptcy prediction power of the ratios. The researcher took sixty six corporations as sample where thirty three firms were bankrupt and the rest are non bankrupt. The bankrupt group was manufacturers that filed bankruptcy petitions during the period 1946-1965. Group two consisted of a paired sample of manufacturing firms chosen on a stratified random basis. Firms in group two existed in 1966. From twenty two original ratios, researcher selected five ratios for the prediction of corporate bankruptcy. The final discriminant function was as follows:

$$\mathbf{Z = .012x_1 + .014x_2 + .033x_3 + .006x_4 + .999x_5}$$

Where X_1 = Working capital/ Total assets

X_2 = Retained earnings/ Total assets

X_3 = Earning before interest and taxes/ Total assets

X_4 = Market value equity/ Book value of total debt

X_5 = Sales/ Total assets

Z = Overall index

The model was extremely accurate in classifying 95 percent of the total sample. The Type I error was only 6 percent, while the Type II error was even better at 3 percent. Researcher hoped that this discriminant 'Z' score index can be used, as a guide, an efforts to lower the cost of investigation of loan applicants. 'Z' score suggested that less time and effort would be spent on the companies whose 'Z' score is very high i.e., above 3, and a very through investigation would be needed whose 'Z' score is below 3.

It is a quantitative model. The researcher failed to consider various qualitative variables like the purpose of the loan, its maturity, security deposit, deposit status of applicant in his model. There also have been a number of methodological criticisms of the Multivariate Discriminant Analysis (MDA). Both **Pinches (1980)** and **Eisenbeis (1977)** identified a number of difficulties arising from the statistical assumptions made in the application of the technique which researchers did not usually address. These include: the assumptions of multivariate normality in the distribution on the sample groups; the equality of the group dispersion (variance- covariance) matrices; addressing the problems of determining the relative importance of individual variables that do not significantly contribute to the overall discriminating model, the selection of prior probabilities and cost of misclassification, and the classification error rates. The model used bankrupt firm as sample which is **Benishay (1973, 181)** described as an autopsy of deceased firms rather than as a prediction of business failure. Another limitation of the study is that the firms examined all publicly held manufacturing corporations for which comprehensive financial data were obtainable, including market price quotations. This model is not applicable to private and other form of business entities. The most important drawback of this model is that, loan-granting decision not only depends on the quantitative traits only but also on many qualitative traits of the borrowers which the model failed to recognize.

2.5.3 An experimental model of risk in consumer credit

Grablowsky (1975) in his empirical study views that individual's character is formed by environmental forces e.g. parents, school, peer groups and it reflects in the individual's personal concept of debt responsibility i.e. his/her intention and actions towards payment of obligations as they come due. He identified some variables which are relevant to an individual character and these are: 1) Ability to achieve (as measured by achievements in life), 2) Ability to live within one's means, 3) Ability to determine one's course of life, 4) Ability to control expenditure through expense planning, 5) Formal education.

Using behavioral variables in a stepwise discriminant-scoring model he found that his model can provide better and cheaper discrimination of credit applicants than model based on financial and other variables. This research finding is related to individuals or firm dominated by one person. Researcher identified some variables which influence the individual's character but he failed to indicate, how individual's character would be integrated into the corporate borrowers' character to judge the creditworthiness.

2.5.4 A note on the impact of audit qualifications on lending and credit decisions

Firth (1980) conducted this experimental research in the **U.K.** and it was published in the Journal of Banking and Finance. In this study, the researcher experiment the impact of certain types of qualified auditors' report on bank lending and credit analyst decisions in the United Kingdom. In this study, a set of financial statements containing one of four different types of audit report was sent to a large sample of credit officers and credit analysts. They were asked to state how much they would lend, or how much credit they would give, for each of the four audit report situations.

It was found in the study that, going concern and asset valuation qualifications does have a significant impact on investment, lending and credit decision. It was suggested that if greater amount of details, relating to the qualification is given in the audit report, then credit officers, credit analysts, and others would be in a much better position to assess the borrowers and can take accurate decision. In this experiment, the researcher sent different audit reports to the lenders and the analysts to make decision how much they will lend on the basis of different audit qualifications reports. But lenders and analyst's decision about how much they will lend to a particular applicant not only depends on financial information rather it depends on some other non-financial information which is not included in the audit report.

2.5.5 Prior probability disclosure and loan officers' judgment: Some evidence of the impact

Cornelius (1983) conducted this study in **Dartmouth, U.S.A.** The study was undertaken to provide some empirical evidence on whether a loan officer's judgment processes were affected differentially by disclosing or withholding prior data indicating probabilities of failure. The significant finding of the research was that disclosure of the objective prior probability did not have a significant impact on the loan officer's judgment. The researcher selected only six ratios from financial statements. But he failed to put arguments in favor of his selection of these six ratios to examine their predictive ability.

2.5.6 Tests of theories of information processing behavior in credit judgment.

Schepanski (1983) carried out this experiment in **Arizona, U.S.A.** and it was published in the Accounting Review. Here the researcher believed that the information processing behavior of the firms, customers, suppliers, employees, etc., could be of value to accountants in their role as information evaluators, to aid decision makers in prediction in a variety of strategic decision tasks within the firm. His interest of this research was to examine the earlier belief that there exists evidence that creditors use financial statements in reaching a credit judgment of prospective borrowers seeking commercial loans (Miller and Relkin 1971; Beckman and Foster 1969; Cole 1976; Collins 1966; Cohen, Gilmore, and Singer 1966; Beckhart 1959 and Hodgman 1963).

He conducted the research to test the representation of linear and non- linear model of information processing behavior on the basis of predictive ability and simplicity in the tasks of credit evaluation. The linear (Main- effects additive) model and few non-linear model namely first, multiplicative model (Einhorn1970 and1971) second, constant weight averaging model (Anderson 1974) third, the geometric averaging model and fourth and finally, the range model. Participant in the experiment were presented with sets of information describing prospective business borrowers in terms of one, two, or all of the following traits; Payment record, Financial condition, and the quality of company's management. Participants were asked to judge how desirable (or undesirable) they would expect each borrower to be as a term loan prospect. Rating were made on a 19 point scale, with levels varying from 1= very, very undesirable, to 19= very, very desirable, with 10 specified as the neutral point.

The experiment gave the results that despite generating impressively high correlation, the linear model may not be an appropriate representation of information processing behavior of lenders in credit evaluation. A non-linear model containing an averaging rule may better represent the credit judgment task. The geometric averaging model and the range model are two theoretical possibilities that would appear to provide the simplest account of the results.

The weakness of the study lies in the identification of the components of independent variables like quality of management and payment record. The researcher did not indicate the components of a quality management and good or bad payment record. Another criticism is the assumption of payment record, where researcher only considered moderately payment for mean judgment of creditworthiness.

2.5.7 A philosophical foundation for credit analysis

Still (1984) wrote this descriptive article in **Philadelphia, U.S.A.** It was published in the Robert Morris Associates Journal named The Journal of Commercial Bank Lending. The researcher here pointed out that credit analysis is an art, not a science, and it is based on certain sound principles. He suggested that one should analyze three basic aspects viz. Viability of loan purpose; First way out (repayment of loan from profit and cash from seasonality), and second way(s) out (repayment of loan from sale of collateral assets) for meaningful analysis. Viability of loan purpose simply means, understanding the events, which give rise to the need to borrow. The loan purpose can understand in the context of the borrowers business, management, industry, and surrounding environment. First way-out of a loan is related to the prediction of cash flows. Positive cash flows are generally associated with seasonality or profitability. Theoretically if a company has no seasonality it has no need for short-term loan commitment. Positive cash flows associated with profits. Evidence of the predictability of profits comes from a rigorous review of past earnings performance and an extrapolation of that profile in to the future. Second way-out consist of valuation of collateral assets and gaining legal control over that assets. The key concept in determining assets value is that an asset's value is a function of its earning power. Valuation of assets and achieving legal control helps the lender recovering the money at the event of default.

He recommended that every loan should have at least two repayment ways. Loans that do not meet these criteria have a good chance of being problem loan that will ultimately have to be worked out or written off. Every sound loan should have a viable loan purpose, show a positive cash flow as the first way out, and have asset protection as the second way(s) out.

2.5.8 Strategic analysis: The neglected element in the term credit decision.

Rizzi (1984) conducted this descriptive study in **Chicago, U.S.A.** He viewed that with the increased competition, banks were granting more unconventional longer-term credit facilities. The researcher believed that traditional financial analysis failed to incorporate all the information necessary to judge the safety of lender's fund. He argued that existing credit ratting models basically review the borrowers' financial statements to judge the financial risk. The study suggested that in the complex business environment lenders had to recognize business risk, which has two components; financial risk as well as market risk. He argued that, strategic analysis was concerned about the assessment of firm's long-term prospects within its industrial environment. This analysis was based on three assumptions; first, to remain profitable, a firm must achieve a competitive advantage; second, the ways and means of achieving competitive advantage vary by industry and finally, as industries evolve, the ways of achieving a competitive advantage may change. He pointed that the analysis involves three steps: environmental assessment; firm assessment; and strategy evaluation. A firm's business environment has two components; first, macro environment where all firms are affected by national and international forces such as social trends, business cycles, inflation and demographic shifts, second, industrial setting, where forces are suppliers, customers, substitute products and services, competitors, and potential entrants. Firm assessment requires an examination of firms market share, financial strength, marketing and production capabilities, and organizational strength. Strategies appropriate for one industry at a given stage may be inappropriate for other industry or even the same industry at a different stage. Thus firms must constantly monitor environment and adjust their responses to maintain their market position. The researcher hopes that this two step strategic evaluation and adjust to changes combined with traditional analysis provides lenders with a more accurate risk measure.

2.5.9 Predicting bankruptcy: If cash flow is not the bottom line, what is?

Gentry, et al. (1985) conducted this empirical study in **Illinois, U.S.A.** The study examined the ability of an expanded cash flow model to explain financial failure. The researchers took sample of 92 failed companies and used balance sheet and income statement information of one, two and three years immediately prior to the date of failure to predict bankruptcy for each of the sample companies. Complete financial statement information for these years was available for only 33 companies; of these 33 failed companies, 21 were industrial and 12 were a mixture of other industries. They matched each of the 33 failed companies with a non-failed company that were similar in asset size and sales in the fiscal year three year before bankruptcy in the same industry. The study used Probit model to generate coefficients from the funds flow components and used these to predict the probability of failure or non-failure.

The two significant findings of the study were: (1) Dividend, investment and receivables flows are reliable information for discriminating between failed and non-failed companies, (2) The addition of cash based fund flow components to the traditional financial ratios used to discriminate between failed and non failed companies, results in significantly improved predictive performance. Probability of failure can predict by using non-financial information which researchers failed to address and incorporate in their model analysis.

2.5.10 Understanding cash flow: A key steps in financial analysis

Nordgren (1986) carried out this descriptive study in **Salt Lake City, U.S.A.** and it was awarded third place in RMA's 1985 national paper writing competition. In this study, the researcher explained the significance of cash flow analysis. The researcher presented two different cash flow formats namely top-bottom format and asset conversion format for credit analysis. The study suggested that by understanding the meaning and technique of cash flow analysis lenders can easily made judgment concerning loan purpose, repayment resources and loan term.

2.5.11 Using tax returns as credit analysis tools

Claeys (1986) wrote this article in **Seattle, Wash, U.S.A.** Here, the researcher opined that analysts should look at the tax return in credit analysis. He commented that borrowers always weave tale of promise and hope to the credit officer and story of woe and misfortune to the tax collector. He suggested that if any discrepancy exists between two statements, credit officer should ask the questions to the borrowers to get a clear and good explanation of why the numbers do not match up. If the customer cannot explain the difference in the numbers to credit officer satisfaction, credit officer should not make the loan.

The researcher also suggested that, from tax return, credit officer can get a number of information to determine the credit-worthiness of the borrowers. He stated that credit officer can get the following information from tax return:

1) It can give a more complete picture of the borrowers' interest expenses that might find on financial statement.
2) It can give an idea of the sorts of the tax shelters the borrowers may be using.
3) In case of individuals, it provides the verification of salary, commission, interest, and other income.
4) It reveals the liabilities or impediments to the customer's debt servicing ability.
5) Looking over the capital gain and losses one can get an insight into the borrowers' business acumen and management ability.
6) It helps in verifying the company ownership.
7) Depreciation and amortization method used can help in assessing the aggressive of the management to manage the cash flows.

2.5.12 A study of the information needs of commercial loan officers

Kemp and Overstreet (1990) conducted this empirical research in **Virginia, U.S.A.** They verified the judgment, whether a borrower is creditworthy or not is based on a lender's assessment of borrower ability to repay the loan and to repay it within a certain time period. The objectives of the study were first, to examine the information needs of commercial lenders; specifically, to find out what information lenders like to get from companies financial statements, second, how lenders make credit decision by using information. They administered a questionnaire to 100 credit officers which contains 48 pieces of information on a scale of 0-4, where '4' indicated high importance and '0' indicated low importance.

Researchers found that the most important information to lenders was working capital, sources and uses of funds, cost of inventories, and allowance for doubtful accounts. These findings indicate that the commercial lenders were more aware about the borrowers' current debt position and flow of funds to meet the obligations.

2.5.13 Character assessment in the lending process

Newburgh (1991) wrote this descriptive article in **Edina, Minn, U.S.A**. The study attempted to set a clear, useful set of standard for analyzing character of borrowers. The researcher suggested three steps procedure for judging character or credibility of borrowers. The first step focuses on the judgment of borrowers' willingness to pay. The study suggested that integrity and willingness of the management to repay the loan can be judged by some inquiry about the key person in the management such as his/her past credit loss history, involvement in deceptive, misleading, or fraudulent practice. The second step focuses on the judgment of the ability of the management and it can be judged by inquiry about his/her sales (past and forecasted), gross margin (price sensitivity, past and forecasted), operating expenses, capital spending, current assets and trade debt management. The third step focuses on the commitment test. Researcher opined that a firm management will not be committed to the plan unless the firm has done everything necessary to make the plan a genuine possibility rather than a mere idea.

2.5.14 Assessing borrowers performance in an economic slowdown

Naroff (1991) carried out this descriptive study in **Philadelpia, U.S.A**. Here the researcher gave some tips to evaluate borrower's performance at the time of economic slowdown. He stated that there are two economic truths:

> (1) No expansion lasts forever, 2) No contraction lasts forever, should be kept in mind when assessing creditworthiness.

He suggested that credit officers should not concentrate only on the immediate implications of the economic slowdown but also on how borrowers can maximize their potential markets at the time of expansion. The researcher proposed the following six stages of evaluation:

- Stage-1: Macro economic overview, which forecast length and depth of recession, impact of recession on various economic units.
- Stage-2: Short-term relative performance ranking (Top-down approach). Here evaluate the industries growth potential and rank the industry in relation to average performance.
- Stage-3: Individual firm analysis (Bottom-up approach)
- Stage-4: Long term relative performance ranking.
- Stage-5: Relative performance ranking application (where evaluate the riskiness of portfolio, identify industries that have greatest expansion possibilities, evaluate credit riskiness).
- Stage-6: Strategic planning where updates short and long-term forecast and ranking every six months (or a year).

Researcher outlined the stages of borrower's evaluation but he failed to indicate the acceptable criteria or rank for granting credit to individuals or industries.

2.5.15 Qualitative analysis: Evaluating a borrower's management and business risks

George (1991) wrote this descriptive research article in **Minnesota, U.S.A.** In this article, the researcher introduced two analytical frameworks for evaluating borrower's management and business risk. The study highlighted the key factors to be considered when assessing qualitative risk of borrowers' business and in credit risk. For assessing management and borrowers' business, the researcher points out the following key factors and their relative importance under different volatile economic conditions.

EVALUATION OF MANAGEMENT

Factor	V O L A T I L I T Y			
	Criteria	Low	Medium	High
Management/Board qualification	Experience/ background of senior managers	Important	Important	Important
	Track record through adverse time	Important	Critical	Critical
	Management succession plan	Important	Critical	Critical
	Role of board	Necessary	Necessary	Necessary
	Role of credit officers, attorneys, accountants	Necessary	Necessary	Necessary
	Company ownership	Important	Important	Critical
	Decision-making process	Necessary	Necessary	Critical
Planning skills	Vision/Mission statement	Important	Important	Important
	Strategic plan	Important	Important	Important
	Annual operating plan	Important	Important	Important
	Cash budget	Important	Critical	Critical
	Contingency planning	Important	Critical	Critical
	Financial targets	Necessary	Important	Important
MIS/Internal controls	Timeliness and availability of financial data	Important	Critical	Critical
	Internal controls-audit process, integrity of data, etc.	Necessary	Important	Critical

BORROWERS ANALYSIS

Factor	V O L T I L I T Y			
	Criteria	Low	Medium	High
Business overview	Products/Services	Critical	Critical	Critical
	Customers	Critical	Critical	Critical
	Geography	Critical	Critical	Critical
Industry risk assessment	Historical attractiveness-profitability, growth, barriers to entry	Necessary	Important	Critical
	Key drives-economy, commodity prices, scale	Necessary	Critical	Critical
	Major changes-new entrants/exist of players Substitutes	Necessary	Important	Important
	Technology	Necessary	Important	Important
	Regulation	Critical	Critical	Critical
	Macroeconomic trends	Critical	Critical	Critical
	Customer needs	Necessary	Important	Important
	Suppliers	Necessary	Important	Important
Strategic risk assessment	Strategy-mission, sustainable competitive advantage	Necessary	Critical	Critical
	Competitor/Industry comparisons	Critical	Critical	Critical
	Financial	Necessary	Important	Critical
	Strategic operational	Necessary	Necessary	Necessary
Operational risk management	Suppliers risk	Important	Important	Important
	Production risk	Important	Important	Important
	Distribution risk	Necessary	Necessary	Necessary
	Sales risk	Necessary	Necessary	Necessary

He also suggested a number of techniques to collect the necessary information to make credit analysis successful. These techniques are: (1) Conduct interview with management, customers, suppliers, competitors, industry experts and previous credit officers, (2) Take a planed tour, (3) Review annual reports, prospectus or offering memos, and auditor management letters, (4) Review strategic plans, organization charts, and job descriptions. Standard operating procedures and sample MIS reports, (5) Conduct credit checks of senior managers.

Literature identified a number of qualitative aspects for assessing borrowers' management and business risk. The study recommended a few aspects for assessing borrowers' management and business risk but failed to assign specific score to measure the management and business risk. Research also failed to indicate optimum score based matrix for accept or reject application.

2.5.16 The art of making financial statement projection: A six-step visual model.

Hamm (1995) carried out this research work in **Birmingham, U.K.** Here the researcher suggested that business track record and historical cash flow were not the determinants of loan repayment but future events and future cash flows would be the valuable indicators of repayment of loan. The study developed a six-step visual model for making future financial statements projection and showed that most companies' sales to total assets ratio was about 2.00. The research viewed that future sales can be projected by taking into account the historical sales data, price level changes, quantity sold, demand, competitor's actions, technology, seasonality, and the economic cycle. The researcher claimed that by using projected sales, it was possible to forecast cost of goods sold, net income, account receivables, inventory, account payables, and total assets. He argued that generally total assets of a firm was half of the total sales, if some one can forecast the some components of balance sheet then he can be able to determine the short or long term financing needs of a firm because there exists a proportionate relationship among sales, cost of goods sold, inventory, account receivables, accounts payable and fixed assets. If an analyst is able to determine the relationship, he/she can be able to make forecast the financial statement items and can easily be find out discrepancy exist in the projection made by the borrowers. The researcher suggested the following six-step visual model procedure for projection of financial statements items and for assessing financing needs.

Step-1: Projection of total sales.
Step-2: Breakdown the sales into cost of goods sold expenses, and income.
Step-3: Profit added to net worth (after deduction of dividend from net profit)
Step-4: Forecast accounts receivable, accounts payable, and inventory.
Step-5: Forecast other assets and liabilities (accruals, short term/ long term debt).
Step-6: Calculate new financing needs.

Literature has not yet developed any standard for sales to total assets ratio. Maximum ratios depend on the nature of business. Some require more assets to generate same sales than others. The model gave analysts some clue for assessing the items of the projected financial statements. There exists a comparatively constant relation among sales, total assets, accounts receivable, accounts payable, and inventory. By comparing two or three year's sales with others items of financial statements one can easily found the discrepancy among financial statements items.

2.5.17 Loan policy and management in banks

Gupta (1995) wrote this exploratory article and it was published in **NIBM, Pune, India.** This article consisted of three sections. Section 1 discussed the issues relating to a bank's lending policy. Section 2 developed a model for rating borrower and finally, section 3 discussed the pricing strategies.

Here the researcher developed the following score based credit rating model:

No	Aspect	Rating range	Remarks
1	Industry risk	10 –0	Prospects
2	Management competence	30—0	Integrity, capacity, character, Management structure, policies etc.
3	Commercial aspects	20—0	Growth, demand, supply, distribution, etc.
4	Technical strength	15—0	Location, technology, layout, plant and machinery, etc.
5	Profitability	10—0	ROI, Return on sales.
6	Gearing	15—0	Outside liabilities/ Tangible net worth.
7	Liquidity	5—0	Current and liquid ratios, debtors turnover, credit turnover, etc.
8	Growth	5—0	Production and sales
	Total Marks	100—0	

He categorized the risk in these ways

Category	Score (in percent)
Low risk	90-----100
Moderate risk	75------90
Average risk	50------75
High risk	30------50
Very high risk	0------30

Credit scoring models include both subjective and objective assessment. The researcher developed probable components of credit scoring model. In this model, he awarded maximum 30 points for management competence and suggested that any thing below 70% i.e. 21 points should be considered a high-risk proposition. But in annexure-1 the researcher indicated only 7 traits having 3 points for each and total 21 points which are inconsistent with the model point allocation. The study classified risks as economic and business risk, industry risks, and firm level risks. But in the model, he included only business risks and industry risks.

2.5.18 Using market- based information in credit analysis

Morgan (1996) is a vice president of **Mellon Bank N.A. Pittsburgh**. This article was published in the Journal of Lending & Credit Risk Management, **U.S.A**. Traditionally; historical financial information plays an important role in credit analysis. The researcher argued that probability of default can best be estimated by option-pricing model using market prices of bond and stock. He opined that in the bond and stock markets, investor always closely observe the profitability, viability and performance of the company. Moreover, in the efficient market prices of the stock and bond always reflect all the publicly available information. Therefore, study suggested that use of market information can open-up new avenues of analysis and it would improve the understanding of a company position and its competitive environment.

The first shortcoming of this research lies in the model. This model is applicable only to public limited company which shares are frequently traded in the secondary markets. Second criticism is that model needs an efficient market which is rare in most of the developing countries. Third shortcoming is that market price always does not reflect the publicly available information rather sometimes price depends on rumor or future expectation of investors. Despite the above criticism, market-based information is up-dated, accurate, unbiased and helpful for credit analysis.

2.5.19 A multiple discriminant analysis of the financial health of selected public sector enterprises: An exploratory study

Rameshan (1997) conducted this exploratory research in **NIBM, Pune, India** and was published in the journal Prajanan. In this study, the researcher attempted to evaluate the financial health of some selected public sector enterprises during the liberalization years. The study used multiple discriminant analysis (MDA) technique, Robertson Turan et al. (1990) 'S' score model and Altman (1968) 'Z' score model to measure the performance of the sample enterprises. Out of 20 sample enterprises, 10 enterprises belonged to profit making and rest were loss making. The study carried out for the period 1987-88 to 1993-94.

The study revealed that there had not been any distinct improvement in the financial health scores of sample enterprises during the liberalization years. In fact, the period witnessed some deterioration in many cases. Even the profit-leaders have suffered setbacks. The study inferred that multiple discriminant function based on the selected financial ratios did not reveal any significant quick turnaround in the financial efficiency of the sample private sector enterprises during the liberalization period.

The study mainly calculated different ratio and score to evaluate financial health of sample enterprises based on financial statements data. The researcher made no attempts to make an insight inquiry into the causes of non- improvement of financial health of the selected enterprises.

2.5.20 Credit repayment by small-scale industries

Joytirmayee (2000) wrote this empirical study and it was published in the Prajanan a **NIBM, Pune, India,** publication. The study attempted to assess the repayment capacity of Small-Scale Industrial (SSI) units with the help of some financial ratios using a discriminate function. For the study, data were collected from 106 SSI units in Orissa. Out of 106 sample units; 42 were operating with loss and the rest 64 were operating either with some profit or on a no profit or no loss basis. The researcher further categorized the sample into defaulters and non-defaulters, 65 coming under the former and 41 in the latter category. The study included most of the ratios found significant by the theorists; Altman (1968); Beaver (1966); Blum (1969). Study attempted to assess the repayment capacity of the SSI units with the help of the four ratios namely, inventory to sales ratio (x_1), working capital to sales ratio (x_2) as the activity ratio, profit to equity ratio (x_3) as profitability ratio and debt equity ratio (x_4) as long term solvency and leverage ratio.

Using these four ratios the study attempted to test the following null hypotheses:

H_0: A borrowers firm with a very high inventory ratio is most likely to fail and hence non- repayment.

H_0: A very high proportion of working capital relative to sales portends failure and hence non- repayment.

H_0: Non-repayment of the loan is more likely when profit is low in comparison to the equity base.

H_0: Low debt equity reduces chances of failure.

The study used the estimated discriminant function for the loss and no-loss groups: $Z = x_1 + 3.01x_2 + 0.069x_3 + 0.069x_4$ and $Z = x_1 + 3.97x_2 - 1.36x_3 + 0.12x_4$ for the defaulter and non-defaulter groups.

For distinguishing both a losing firm from a profitable one and a defaulter firm from a non- defaulter, working capital to sales ratio was found most important with the coefficients of 3.01 for the former and 3.97 for the latter.

The researcher measured 'Z' score of default firms and non-default firms for making comparison and to test the hypotheses. But study failed to set a cut of point in the model for distinguishing profit making firm from loss making firm and default firm from non-default firm and also failed to test the accuracy of the model for classification and misclassification.

2.5.21 The role of corporate life cycle in the prediction of corporate financial distress

Kane et al. (2003) conducted this descriptive study in the **U.S.A**. and it was published in the journal of Commercial Lending Review, U.S.A. Here the researchers proposed that incorporation of corporate life cycle in existing statistical models can greatly enhance the explanatory and predictive ability. Researchers identified three stages of a corporate life viz. "growth" "mature" and "decline". The study also identified the characteristics of each stage. Researchers viewed that growth stage firms are younger, smaller, less well capitalized and have limited line of credit. Suppliers of loan of these firms were reluctant to extend liberal terms of credit and these firms had limited access in the capital markets. Declining firms had limited access in the line of credit and their cost of financing was high. They opined that internal cash resources are important for both growth and declining firm's to avoid distress. The research suggested that to predict probability of distress of growth and declining firms one should look the liquidity ratio that proxy for internal cash resources. Research also opined that mature firms enjoy competitive advantage and related efficiency such as economics of scale, premium pricing from effective product and service differentiation, and low cost advantage from inputs such as labor, suppliers. Thus net income-based ratios should be most useful in assessing the likelihood of distress for mature firms.

The study suggested that in case of growth and declining firms, analysts should give emphasis on the cash base (liquidity) ratios and for mature firms on profitability ratios. Existing statistical models for predicting financial distress already recognized the liquidity ratio and profitability ratio by giving relative equation weight. Researchers failed to suggest proportionate weight of each ratio and to set a cut-off point to identify the firm likely to be failed or not.

2.5.22 Analysts Tools for Detecting Financial Reporting Fraud

Barsky et al. (2003) carried out this empirical study in the **U.S.A.** and it was published in the journal Commercial Lending Review. This study found signs of financial reporting fraud in financial statements of "Ernon" by calculating the Altman "Z" score and Beneish Probit analysis model (1997) from three years financial statements. The study proved that financial reporting fraud can be detected by using traditional financial distress prediction model and earning management model and it suggested credit officers and lenders to detect and deal with financial reporting fraud because failure to do so can be severe consequences for their institution.

2.6 Studies on Credit Analysis Reports

There is only one study found in existing literature relating to credit analysis reports. This is: (i) A conceptual framework for credit analysis reports.

2.6.1 A conceptual framework for credit analysis reports

Levine et al. (1985) conducted this descriptive study in the **U.S.A.** Credit analysis reports is one of the steps of credit management process. This article provided a conceptual framework for preparing these reports. In the study researchers outlined the flow of a credit analysis reports and the types of reports.

2.7 Studies on Credit Structuring

Existing literature shows that there are only two studies relating to credit structuring and these are

(i) Commercial loan structuring

(ii) Loan policy and management in banks

2.7.1 Commercial loan structuring

Morsman (1991) in this descriptive article published in the **U.S.A.** The researcher emphasized on accurate loan structuring and warned about the danger of inaccurate loan structuring. The researcher said that loan structuring consisted of fixation of tenor, security, repayment, and covenants. He opined that there were different types of credit such as, seasonal/temporary/short term, long term, bridge, permanent capital etc. The study suggested that tenor, purpose, and source of repayment make every loan different from other. This difference necessitates the appropriate structuring of loan. Loan structuring should be accurate. The researcher warned that mismatch of tenor, ambitious repayment schedule, earning possibilities, insufficient security, and wrong covenants setting may cause the non repayment of loan.

2.7.2 Loan policy and management in banks

Gupta (1995) conducted this study in **India**. The researcher categorized the costs of credit as deposit cost, cost of funds, administrative cost, capital allocation cost, and risk premium. Study suggested that loan pricing should be the summation of base cost plus risk premium plus the desired profit.

2.8 Studies on Credit Documentation

Three studies relating to credit documentation are reviewed in this study andthese are:

(i) The need for careful loan documentation

(ii) Documentation deficiencies: The credit officer's bane

(iii) Documentation/ compliance review: A key to controlling loan losses

2.8.1 The need for careful loan documentation

Brown (1986) in his descriptive article published in the **U.S.A.**, outlined the need for careful documentation and suggested the following ideas for making documentation accurate: (1) Hire some one from outside the bank to work as document expert; (2) Sign all notes by borrowers and at least by two credit officers; (3) Document should be typed by one secretary and it must be signed by him, then one can easily identify who is accountable for type; (4) Double-check the documents that it contains the necessary signature; (5) Include in files supporting documents such as corporate resolutions, articles of incorporation, bylaws, credit file memos, workout, and term loan agreement; (6) File borrowing authorization form of the firm, (7) Record real estate and commercial collateral on form UCC; (8) Maintain records on insurance, (9) Maintain financial statements of borrowers and guarantors; (10) Arrange files in logical order for easy reference-financials, insurance, collateral, correspondence, application, credit reports, credit loan files and grouped the files as commercial, consumer, real estate and so on; and (11) Attach to each file the list of necessary document is need of correction.

2.8.2 Documentation deficiencies: The credit officer's bane

Behrens (1990) in his edited book published in **Australia** identified ten most common problem areas in loan documentation and suggested that these should be carefully handled. The areas are: dealing with the proper entity, names and signatures, evidence of authority and capacity, collateral descriptions, filing or recording, title and record searches, guaranty agreements, collateral valuations, maintaining secured position, and casualty insurance coverage.

2.8.3 Documentation/ compliance review: A key to controlling loan losses

Derleth (1992) suggested that by proper review of documentation, the credit officer can be able to discover and correct faulty documents, reduces the bank legal and collection costs to a minimum, eliminate loan losses, and to identify training needs among bank lending and support staff.

2.9 Studies Relating to Credit Monitoring and Review

Plenty of studies were undertaken around the world relating to credit monitoring and review. A review of some of the following important studies has been done:

(i) A comprehensive approach to loan review
(ii) New technology for credit review
(iii) From loan review to risk review
(iv) From loan review to process review
(v) Three different perspectives of loan review
(vi) A binary system of loan review
(vii) The three Cs of loan review

2.9.1 A comprehensive approach to loan review

Proctor (1984) conducted this descriptive research in the **U.S.A.** It is an overview of loan review approach of a bank. Here the researcher described the goal of loan review, a typical loan review program, contents of review, collateral review system, loan review report, policy of loan classification, loan grading criteria and the responsibility of a loan reviewer of his bank. The researcher described loan review systems of his banks but failed to indicate actions that can be useful to reduce the loan losses.

2.9.2 New technology for credit review

Nobles (2003) carried out this study in the **U.S.A.** The researcher here outlined the requirement of credit review and suggested adapting IT in the credit review. He argued that adoption of new regulatory requirements of regulatory agencies affects credit review in the concept of two dimensional risk rating. After adoption of Basel II, credit reviewer is not only review the credit risk of a particular obligor at the same time he or she is also responsible to review the risk of the credit portfolio. The researcher suggested banks to adopt more information technology based loan review system and hoped that adoption of information technology based loan review system would help the bank to meet the requirements of the regulatory agencies as well as it would reduce the cost by replacing men by machine.

2.9.3 From loan review to risk review

Holloway (1990) did this study in the **U.S.A.** In this study, the author described the existing loan review system and developed a process review system which he believed would be more effective in maintaining the quality of loan portfolio. He viewed that, an efficient and effective credit culture should have several levels of control such as primary controls, secondary controls and third controls. Primary controls are defenses against poor credit quality, secondary controls are designed to ensure that exceptions in primary controls are detected and corrected in a timely fashion and third controls assess the effectiveness and efficiency of secondary controls. He hoped that, if the controls are properly designed and work in cooperation with line management, banks can improve risk assessment and the efficiency of the staffs.

2.9.4 From loan review to process review

Thurmond (1990) carried out this descriptive research in the **U.S.A.** The researcher believed that the quality of the credit risk portfolio and its result i.e. the earning stream depends on the underlying credit process. Active participation of management in formulating the elements of credit management and their active performance of responsibility can assure the maintaining credit quality as well as shareholders value. The quality of credit process depends on the shared performance of responsible person. If the credit management process is responsive, efficient, well defined, effective in exposing risk, attentive, and anticipatory in execution and ongoing management, the quality of the portfolio should be high and earnings fairly predictable.

2.9.5 Three different perspectives of loan review

Munson et al. (1984) presented this paper in a panel presentation at RMA's 69^{th} annual fall conference in **San Francisco**. In this paper, they described the system now their bank is following for loan review. They informed that now their bank is following passive and active extremes systems for loan review. In passive extremes, the loan review officer ranked the existing borrowers on the basis of accepted quality rating system with or without discuss, even in case of problem loans directly with credit officer. In the active form of loan review system, the review officer not only classifies the problem loan but also suggests the necessary steps that should be taken. They opined that proper background, experience and qualified individuals possibly from inside or outside of the organization, the seriousness and degree of commitment of concerned parties can make the loan review work effective.

2.9.6 A binary system of loan review

Ziegler (1980) presented this seminal paper at the ABA's National Credit Conference held in **Atlanta, Georgia, U.S.A**. In this conference, presenter informed that his bank now using three-tier automated loan review system. Three-tier loan review system describes which loan should review and its frequency. First tier theme is that all loans exceed 2.5% of capital accounts should review periodically and duplicate credit files should maintain centrally. In second tier, all loans exceeding ½% of 1% individual bank capital should review at least every nine months. In third tier, all past due loans, 10 %(by number) of loans under ½% of 1% of individuals banks capital accounts should review at least every nine months. He suggested that the review reports should be prepared periodically and should make it available at various places within the organization. The presenter viewed that the intent of loan review is not only to monitor the credit but also to detect it trends which would require in-depth analysis and possible management action.

2.9.7 The three Cs of loan review

Ginzl (1985) undertook this study in the **U.S.A.** In the study, the researcher concluded that in the increased competitive markets, interest rates are rapidly fluctuating, margins are shrinking, and deregulation forces banks to assume more aggressive lending attitudes. In this situation lack of loan review can be disastrous. He recommended that to minimize loan losses, commitments, credibility, and communication skill of credit reviewers are essential. The researcher defined commitment, as full support of senior management on a continuous basis on loan review program. By credibility he meant, a mixture of technical competence, commonsense, and constructive approach to problem solution. Communication means oral, written, and listening skills of reviewer to communicate with the senior management.

2.10 Studies relating to Problem Loan Identification and Resolution

Good numbers of researches have been undertaken around the world to identify the signs of problem loan and techniques for handling it. Following important studies have been reviewed:

(i) Bank loan default problem in Bangladesh: A dialogue between borrowers and Lenders,
(ii) Problem loan identification and management,
(iii) Empirical analysis of the commercial loan classification decision,
(iv) Information sharing, lending and defaults: Cross country evidence,
(v) The Predictive Power of Economic Indicators in Consumer Credit Risk Management and
(vi) The extent of loan default in nationalized commercial banks and private commercial banks in Bangladesh: A statistical analysis.

2.10.1 Bank loan default problem in Bangladesh: A dialogue between borrowers and lenders'

Muinul et al. (1999) carried out this empirical study in **Bangladesh**. In this study, researchers selected 1000 top defaulters as population from the list of 2117 defaulters. From the populations' they randomly selected 125 top loan defaulting firms. Survey method, participant observation method, key information method and case study method were used to collect information. The study revealed that political connections played a key role in sanctioning loans. Majority of the defaulters had political affiliation and most of them frequently changed their political affiliation.

2.10.2 Problem loan identification and management

May (1999) conduct this descriptive study in the **U.S.A.** In this study, the researcher explored twenty classic indicators of problem loans and suggested a probable way of its solution. He opined that if credit officers have the ability to detect the bad signs and take necessary action; bank can escape from huge losses. The researcher suggested that by providing advice and restructuring the loan, bank can help borrower's improving their financial conditions. If a bank fails to improve the borrowers' financial conditions after taking necessary actions, then the bank can take legal action under existing law to control over the borrowers' businesses to recover the loans.

2.10.3 Empirical analysis of the commercial loan classification decision

Dietrich and Kaplan (1982) carried this empirical study in the **U.S.A.** In this study, researchers developed a simple linear model and hoped that it would be able to reproduce most of the credit officer's classification decisions. They took 140 classified loans as samples which were earlier classified by the authorities. Researchers' used three independent variables viz. debt-equity ratio, fund flow to fixed commitments ratio, and sales trend in the model and believed that it would be able to classify a loan into one of the four mutually exclusive categories.

The research concluded that except for a troublesome "transition" category (IA), the model would able to distinguishes high-risk (category II and III) loans from low risk (category I) loans with only a few errors. In comparison to Altman 'Z' score and Wilcox probability model for bankruptcy prediction, the model is superior in predicting the riskiness of a loan.

2.10.4 Information sharing, lending and defaults: A cross country evidence

Jappelli and Pagano (2002) wrote this empirical study and concluded that bank lending was higher and credit risk was lower in countries where lenders share information regardless of private or public nature of it.

2.10.5 The predictive power of economic indicators in consumer credit risk management

Liu and Xu (2003) used Chase Manhattan Bank and Seton Hall University, **U.S.A.** macroeconomic data and industry-wise credit card default data to examine the predictive power of economic indicators in consumer credit risk management. The study found that economic variables, such as household debt service burden, unemployment rate, consumer confidence index, inflation rate, personal bankruptcy filings, and stock markets returns, have strong forecasting power for customer credit card charge-off (default) rates.

2.10.6 The extent of loan default in nationalized commercial banks and private commercial banks in Bangladesh: A statistical analysis

Hasan (2003) carried this empirical research in **Bangladesh**. The objective of the study was to compare the performance of nationalized and private commercial banks in terms of their loan management. To compare the performance, the researcher took Janata Bank (JB) as representative sample of NCBs and National Bank Limited (NBL) as representative of PCB,s. Researcher used dummy variable regression analysis and log linear regression analysis to measure the credit management performance of sample banks.

It was found in the study that both Janata Bank and National Bank Limited have alarming default rate where National Bank Limited default rate was a bit lower than Janata Bank. One of the weaknesses of the study is that the researcher measured the performance of sample banks on the basis of loan disbursement and recovery. He did not attempt to find out the causes of low recovery and high default rate.

2.11 Studies on Financial Crisis and Credit Risk Management

Existence of huge non performing loans around globe and the financial crisis in emerging economy in Asia motivate researchers to study on financial crisis and credit risk management. Plenty of studies are available in the literature but the following scholarly researches have been reviewed:

2.11.1 Significance of risk management

Backstrom (2000) presented this paper at the Risk Management Forum organized by **Ernst and Young in Stockholm**. In this paper, the author identified the weaknesses of credit risk management models. The author stated that measurement of risk needs flow of authentic information to estimate the key parameters of the models. But lack of authentic information may obstruct the estimation of these parameters. It is also difficult to measure the interactions between the variables. The researcher suggested that combination of sound judgment and common sense to the models should be better to measure credit risk.

2.11.2 Financial markets: Lessons for credit officers and bank supervisors

Ferguson (1999) delivered a speech on the above issue before the Board of Market Association, **NY, U.S.A.** In his speech, he commented that innovation of models to measure the default risk and development of internal rating processes had been great help in determining credit risk and declining cost but models are using for measuring credit risk are needed to redefine. In this regards, he suggested that for sound risk management, regulators should promote and provide investors and others meaningful information about the level and nature of risk.

2.11.3 Evolving challenges for credit officers and supervisors

Greenspan (2000) delivered a speech about the above issue at the National Association of Urban Credit Officers, Urban Financial Services Coalition, **San Francisco, U.S.A.** In his speech, he remarked that innovation of various derivative, securitization, insurance, and other structured products and the greater diversity in activities, not only make risks more opaque but even when revealed, sometimes difficult to interpret today. He suggested that more relevant regulatory disclosures regarding loan servicing, securitizations, venture capital, and insurance should improve not only transparency but also help off-site monitoring and tailoring supervisory program.

2.11.4 Financial risk and its management

Ercel (1999) attended the Sixth Annual Global Finance Conference, **Bilgi University, Istambul,** and delivered his speech on the above issue. In this speech, presenter commented that heavy competition in the international credit markets in recent years, the active participation of non-bank financial institutions, and borrowers' resort to the capital markets for loans at lower cost, have all brought about a considerable narrowing of profit margins and forced the banks to make more loans in order to have a competitive edge. But they faced credit problems due to adverse development in the economic and financial conditions. He suggested that to face these adverse conditions new methods for evaluating credit risks would be needed. He also suggested that besides credit rating models, intensive data analysis, and retrospective analysis of credit losses, models for bankruptcy probabilities, and stress tests should have to be used to avoid credit distress.

2.11.5 Why risk management is important for global financial institutions

Meyer (2000) delivered this speech in a symposium titled Risk Management of Financial Institutions organized by the **Bank of Thailand in Bangkok**. In his speech, he attempted to identify the probable causes of the Asian financial crisis. He stated that poor assessment of credit risk or cash flow analysis, heavy emphasis on relationship with the borrowers and the availability of collateral, concentrations of lending to individual firms or business sector, and large loans to bank capital were the main causes for financial crisis in Asia. He commented that credit officers in the world, particularly in developing countries viewed risk management model as "Holy Grail", without having a real understanding of its fundamental elements. He pointed out that sophisticated models were useless if the operating environment and management incentives were deficient or if fundamental risk management principles were ignored. He suggested that top management will, framing of well thought credit policy and introducing the crucial separation of business line management from risk management and internal control could save institutions from failure.

2.11.6 East Asian financial crisis: Lessons for the developing countries

Murshed and Ahamed (2000) carried out this descriptive study in **Bangladesh**. The objectives of this paper were to explore the causes of East Asian financial crisis and outline the policy prescriptions for the developing countries, in order to prevent or minimize the incidence of such crisis.

The research identified serious structural weakness of the financial system together with the macroeconomic vulnerabilities as the causes of Asian crisis. They suggested reforms of the legal, institutional and administrative frameworks. Such reforms encompassed modernization of financial sector laws and prudential regulations; including operational procedures for exist of problematic financial institutions. Suggested reforms should also focus on strengthening of supervisory powers, procedures, and capabilities with the aim of bringing about better risk management in banks.

One of the weaknesses of the research lies in the identification of problem. The researchers found serious structural weakness of the financial system together with the macroeconomic vulnerabilities as the causes of the Asian crisis. But Meyer (2000, 7) and Backstrom(1999, 5) identified poor assessment of risk, heavy emphasis on relationship with the borrowers, poor cash flow analysis, underestimation of credit risks as the major causes of financial turbulence in the East Asian countries. Carse (1999, 9) identified over lent to unproductive sectors, policy lending, political influencing, and lack of credit skills were the main causes of Asian financial crisis.

2.11.7 Financial liberalization, banking sector and industrial finance stagnancy or dynamism

Khalily et al. (2001) conducted this descriptive study in **Bangladesh**. In this study, researchers identified institutional inability and entrepreneurs' behavior equally responsible for high default rate. They found that most of the defaulted borrowers were actively involved or associated with political parties. Such association and active participation in politics encouraged not to comply with the terms and conditions of loans. Researchers commented that financial courts could not compel defaulters to repay loans until political institution separate itself from the dishonest and defaulted borrowers and also from dominating trade unions.

One shortcoming of the research was the failure of researchers to present any empirical evidence to support their findings. Lending decision process involves a series of mathematical calculations and management decisions. Politicians never influence all these decisions. It is only possible when the persons involved in the assessment of the creditworthiness of borrowers and in decision-making do not understand the mathematical techniques or willfully take decision in favor of the borrowers.

2.11.8 Future challenges for credit officers and bank supervisors

McDonough (2000) delivered this speech before the 106th Annual Convention and Financial Service Forum of the New York State Credit Officers Association held in **New York**. In his speech, he remarked that financial integrity and public confidence were the most important assets of a bank and it largely depended on the bank's credit management process. If banks extend credit carelessly, banks will incur losses, and it will undermine its ability to honor deposit obligations. If once banks' ability to honor deposit obligation falls into question and if the public confidence is lost, then savers will go for consumption which will result inflation in the economy. He suggested that to avoid this scenario bank have to extent credit wisely, objectively and impartially. He recommended that the decision as to who will get credit must be left to private initiative within a context where those making the decisions have a major stake- their own capital and economic livelihood. He hoped that if the system worked properly, those receiving credit would be the most capable of producing the stream of goods and services that would enable the economy to grow.

2.11.9 Credit risk management and the level playing field

McDonough (1998) delivered this speech at a conference titled The Challenge of Credit Risk in **Frankfurt**. He recommended in his speech that choosing a credit strategy is becoming more challenging in light of changing competition not only because larger financial institutions have become more diversified and global but also because the market distributes credit risk far differently than it did a decade ago.

2.11.10 New approaches to the international regulation of credit risk

Desario (1999) discussed the above topic at the 5th ABI Convention on the Development and Management of Loan Portfolios held in **Cernobbio**. For better credit management the presenter suggested the following techniques:

1) When granting loans, bank should evaluate all the information available in order to acquire a complete profile of borrowers, including their exposure to cyclical or sectoral events, group relationships, if any, the use to which loans are to be put and the sources of the fund that will permit repayment.
2) The monitoring of the loans should be assigned to qualified personnel working independently of the units responsible for granting credit.
3) The credit committee should establish guidelines including the information flow regarding, accounting practices, provisioning polices, organization, customer assessment procedures, breakdown of the loan portfolio, by class of borrowers,

doubtful debts, collateral, volumes of derivatives and securitized loans, commitments, expected and actual rate of return on loan.

4) The management should adopt the statistical models and financial techniques to identifying and measure and manage credit risk and develop the necessary credit skills to analyses these.

The presenter raised the question about the agencies credibility and independence as well as the objectivity and transparency of their judgment. In this context Mcdonough (2000) concluded that

> Decision as to who gets credit must be left to private initiative within a context where those making the decisions have a major stake their own capital and economic livelihood.

2.11.11 International financial turbulence in the 1990s

Backstrom (1999) in his speech on "International Financial Turbulence in the 1990's" in a seminar organized by **Jonkoping University, Jonkoping, Sweeden,** identified two reasons which were responsible for financial crisis. These are: first, difficulties in judgment of credit risk second, underestimation of credit risk by the banks supervisory authority. He mentioned that credit risks are not simple to handle. In measuring credit risk, most credit officers simply followed the herd[†] instead of attempting to assess risks independently.

2.11.12 Credit risk during the Asian crisis

Carse (1999) delivered this speech at the Asian International Conference & Trade Credit Workshop in **Hong Kong**. In his speech, he mentioned several causes as responsible for financial crisis in the Asian region. These were: (1) Over lent to unproductive sectors, notably the property and stock markets; (2) 'Policy' lending i.e. governments persuasion to lend heavily to companies that were not commercially viable; (3) Lending to connected parties; (4) Politically influenced or insider lending; (5) Name lending and relationship lending; (6) The lack of credit skills to recognize bad debts and to face up to the full scale of bad debt problem; and (7) Improper loan classification and inadequate provisions against them.

To overcome the crisis and to reduce the chances of similar problems in the future he recommended that

---

[†] Heard means do and think the same as everyone else

1) Be clear about your lending strategy, including how much risk and what type of risks, you are prepared to undertake,
2) Know your customer, his business and, to the extent possible, his other financial commitments,
3) Keep track of what your lending are actually being used for,
4) Lend on the basis of cash flow rather than collateral,
5) Maintain an effective early warning system for problem loans and make sure that the loan portfolio is properly graded,
6) Devote sufficient resources to debt recovery and make sure that your workout staffs are properly trained and
7) Approach debt workouts in the right spirit of compromise and consensus.

2.11.13 The importance of risk management techniques and the enhancement of market discipline

McDonough (1999) discussed this topic before the Bond Market Association in **New York**. In this discussion, he identified the following weaknesses of credit risk management:

(1) Poor or cursory assessment of credit risk.
(2) Used un-audited financial information from valued customers, some of which had recorded substantial profits in previous years.
(3) Assessment of periodic credit risk by using stale information in a rapidly changing market. This insufficient information impeded the setting of prudent credit limits and terms, including collateral requirements and contact covenant.
(4) Failure of risk managers to account fully the risks involved in new financial products such as equity repos, and credit derivatives, by existing credit analysis system and methodologies.

2.11.14 Looks at Financial Market Lessons for Bank and Supervisors

Ferguson (2000) participated in the conference of the Economic Association in **Boston in 2000**. In the conference, he remarked that the bad loans problem was happening for poor supervision and described the problem as

> The systematic risks implied by weak regulation may be much more severe in countries with large banking systems. This observation is not unique to developing countries. Even Japan, one of the world's advanced industrial countries, has struggled with a bad-loan problem, partially because of massive bank lending in an environment of inadequate prudential supervision.

He warned that if the regulations and incentives for proper credit assessment and monitoring were not initiated in developing countries; especially the countries with huge quantities of domestic savings might face financial crisis in coming years.

2.11.15 Central-banking reforms in formerly planned economics

Sundararajan (1992) outlined the importance of strengthening banking supervision and identified probable macro economic and technical factors responsible for making prudential supervision system complicated. For attaining macro economic stability he recommend these necessary steps: (i) providing greater autonomy to central banks; (ii) strengthening competition in the banking system; (iii) promoting the development of money and securities markets; (iv) streamlining the payment system; (v) restructuring the financial system to deal with problem loans and (vi) develop an effective banking supervision system.

He identified many macro economic and technical factors responsible for making complicated the prudential supervision system. These include political difficulties in restructuring banks and enterprises in order to absorb the losses due to bad loans and foreign exchange exposures, the inadequacies of loan recovery and bankruptcy laws, the dominance of the large loan or deposit customers in many countries, the limited scope for raising capital. He warned that absence of adequate credit analysis and loan monitoring and internal audit system in commercial banks impeded the supervision progress.

2.11.16 The reform of Senegal's banking system

Zamaroczy (1992) made attempts to identify the causes of banking sector failure and its effect on economy. The researcher identified (1) Inadequate lending risk assessment, (2) Financing of loss making public enterprises and (3) Poor management as the causes of banking sector failure.

In his word the effects of non performing loan on the economy were,

> The lack of adequate financial intermediation disrupts economic activity as frozen deposits and non performing loans prevent the banking system from carrying out its vital role of collecting and redistributing domestic savings, attracting foreign capital and facilitating commercial transactions.

2.11.17 Restoring Justice to Banking in Bangladesh

Sobhan (2000) presented this paper at the third Nurul Motin memorial lecture on "Ethics in Banking" organized by **BIBM, Mirpur, Dhaka, Bangladesh.** In his paper, he commented that, bank lending practices dominated by affluent elites who had considerable influences on major political parties and also in the national parliament. They also had influences on the management of the bank to condone default by repeatedly rescheduling default loans.

2.11.18 Role of commercial banks in development financing in Bangladesh

Shah and Chowdhury (2000) carried out this study in **Bangladesh.** In this study, they found that, directed and inefficient credit allocation by the commercial banks of Bangladesh in various economic sectors without adequate credit appraisal and monitoring, inter alia, ultimately lead to the widespread loan delinquency and deteriorating health of the entire financial system.

2.11.19 Online research and commercial lending

Larabee and Ahlquist (1998) undertook this descriptive study in the **U.S.A.** In this study, they described the advantages of online research in credit analyses, preparation of proposal and loan approval. They argued that explosive growth of the internet had made vast amounts of information available to credit officers with lower costs and time. It seemed impossible to collect information relating to small business or private companies. If they had any web site having product information, news stories, financial information, management information, and information on competitors. By searching the web site credit officers could easily and within few second could get the necessary information about borrowers. The internet could provide valuable information in analyzing loans and preparing proposal for loan approval.

2.11.20 DSS model for lending decisions: Case study of commercial banks in Bangladesh

Alam et al. (2001) carried this empirical study in **Bangladesh**. One of the objectives of the study was to identify the required components of Decision Support System (DSS) including various action tables, databases and dynamic processing systems in order to use the appropriate rules to find the values of various parameters required by the sub models. The researchers had applied DSS model on twenty- eight borrowers of different banks. It was found in the study that the growth rate and 'Z' score were good determinants in selecting the borrowers.

DSS is intended to support rather than replace decisions. Computerized system can replace the human decision maker in structured decision but are of little aid in completely unstructured situation (Graham 1989). There is a large group of decisions taken by decision-makers in business organizations that has a structural computational element as well as an unstructured non-rule governed component. It is just this unstructured decision that can be aided but not replaced by the decision support system. Based on their empirical evidence researchers suggested some decisions rules such as the borrowers with growth rate greater than 10 percent and Z score greater than 2.5 were good in performing repayment of loan. Borrowers with past good credit reputation and poor financial performance were not performing well in repayment of loan. However, the parameters they used in their decision rules were poorly defined (Such as credit reputation; what are the components and techniques of judging credit reputation) and the components of these parameters were absent in the study. Decision parameters show existence of solvency parameters but researchers failed to identify theoretical background of solvency and parameters to measure solvency of the companies. Their suggested decision rules were fully based on financial performance evaluation. Management competency and honesty are the important components for assessing creditworthiness of borrowers which were fully ignored in the study. Moreover, their suggested decision rules were not justified on the ground of prediction ability.

2.11.21 An evaluation of LRA practices in banks in Bangladesh

Saha et al. (2001) carried out this empirical study in **Bangladesh**. The objectives of this study were to evaluate the practices of LRA (Lending Risk Analysis) by financial institutions in Bangladesh and to identify the problems in practicing LRA. The significant findings of the study were: (1) Credit officers were tempted to put their option on average risk levels in all risk categories without justification. As a result, the ultimate risks level came to "acceptable" rating which went in favor of the borrowers; (2) There were a lot of ambiguities/inconsistencies in the contents of LRA; (3) Lack of reliable financial information of borrowers; (4) Borrowers perceptions' problem; (5) Non availability longer-term economic forecast; and (6) Skill and attitude problems of bank personnel.

The study found lack of information was a problem in LRA. But the study believes that lack of information is not a problem. In LRA, important things are the attitude of top management and the credit officer. Information can easily be collected from various sources if a credit officer is interested and properly conducts credit investigation and top bank management do not put their ugly nose in this matter. It is true that most of the risk calculations in LRA are subjective, but subjective judgment could be accurate if the credit officer is able to collect accurate information.

2.11.22 Analysts tools for detecting financial fraud

Barskey et al. (2003) undertook this empirical study in the **U.S.A.** Using Altman "Z" score model (1968) and Benish Probit model (1997) they found that signs of financial reporting fraud can be detected by using traditional financial distress prediction model and earning management model. They pointed that credit officers and lenders must be prepared to detect and deal with financial reporting frauds because failure to do so could bring severe consequences for their institution.

2.11.23 Short-term loans and long-term relationships: Relationship lending in early America

Bodenhorn (2003) carried this empirical study in the **U.S.A**. Using loan records of 19th century U.S. banks; the researcher concluded that (i) Credit officers and borrowers received benefits from repeated relationship; (ii) Repeated relationships had lower credit costs to credit officers; and (iii) Long-term relationship requires fewer personal guarantees, which was worked as alternative to collateral of borrowers.

2.11.24 Credit management weakness in emerging economy banks

Buyske (1998) conducted this study in the **U.S.A.** In this study the researcher identified several weaknesses of credit management and classified those as: corporate culture problem; analytical approaches problem; and information shortcoming. He opined that poor communication between senior and mid level management, narrow definition of responsibility of employees and lack of group decision-making was organizational problem. Low prestigious responsibility, narrow scope for analysis where some misconceptions exist such as, big companies are better credit risk, government guaranteed credits are fully risk free, foreign currency risk is the risk of borrowers not the banks, inter banks loans to large banks are essentially risk free and therefore are not subject to credit analysis, over reliance on decision making tools are analytical approaches problem. Data integrity, timeliness etc are information weaknesses. He suggested that, huge non-performing loans in trouble Asian economy need reassessment of methodology for analyzing bank credit management process.

2.11.25 Credit administration: The key to recovery in short-term and success in the long-term

Purnell (1992) carried out this study in the **U.S.A.** In this study, the researcher suggested that in order to minimize mistakes and non-performing loans three areas of bank credit administration should be addressed. These three areas are:

1) Credit approval and booking process, which include actual approval, credit review, and various information systems.
2) Requirement of staff in credit department and loan review department.
3) Identification of new credit skills and development of training programs.

2.11.26 Financial institutions in the developing countries

Diana and Clayton (1997) conducted this study under a **World Bank** project. In the study, they found that banks in the developing countries do not have a well developed credit management process and main deficiencies of credit management process are:

(1) The absence of written credit policies; (2) The absence of portfolio concentration limits; (3) Excessive centralization or decentralization of lending authority; (4) Poor industry analysis; (5) A cursory financial analysis of borrowers; (6) An excessive reliance on collateral; (7) Infrequent customer contact; (8) The Inadequate checks and balances in the credit process; (9) Absence of loan supervision; (10) A failure to improve collateral position as credit deteriorate; (11) Poor control on loan documentation; (12) Excessive overdraft lending; (13) Incomplete credit files; (14) The absence of asset classification and loan loss provisioning standards; and (15) A failure to control and audit the credit process effectively.

2.12 Summary of Literature Review

Heinemeyer (1980) opined that credit investigators must have adequate knowledge about accounting, financial statement analyses, laws, ethics in banking, and sources of information. **Pace and Simonson (1977)** suggested that investigation should be effective i.e. all the relevant information should be collected. They also commented that good credit investigation is an art and it can be developed through experience and training. Plenty of theoretical and empirical studies were conducted on the topic credit analysis. The pioneer of empirical model base credit analysis was **Altman (1968)** followed by other researchers. Recent researches on credit analysis gave more emphasis on qualitative credit analysis along with quantitative analysis (**Newburgh 1991,** character assessment in the lending process; **George 1991, q**ualitative analysis: evaluating a borrowers management and business risks; **Kane et al. 2003,** the role of corporate life cycle in the prediction of corporate financial distress). Important researches relating to credit review identified various models of loan review (**Ziegler 1980**; a binary system of loan review; components of review; **Munson et al.1984**; three different perspectives of loan review; Ginzl 1985; the three Cs of loan review.; risk grading; **Proctor 1984**; a comprehensive approach to loan review; modern techniques for credit review; **Nobles 2003**; new technology for credit review; risk review through loan review; **Holloway 1990, f**rom loan review to risk review). Various researches were also found relating to loan classification, problem loan identification and its management (**May 1999;** problem loan identification and management).

2.13 Research Gap

Plenty of researches were conducted around world to handle credit investigation, to identify the sources of information, to develop techniques for credit analysis, to monitor credit after they have booked and handling problem credit. But any qualitative or empirical research hasn't yet conducted in Bangladesh to explore the credit management process, to measure its effectiveness, to identify the causes of problem loans and to resolve the problem credit problems of financial institutions. A little research was conducted in Bangladesh where researchers tried to identify the causes of default loans but no effort were made by anyone to explore actual credit management process now practicing by banks in Bangladesh and to measure its effectiveness. The present research is thereby, aimed to explore the credit management process that is now practicing by banks in Bangladesh, to measure its effectiveness and also to identify the causes of loan default. Attempts will also be made to suggest probable recommendations to overcome the problems now banks are facing in their credit management process.

CHAPTER 3

CREDIT MANAGEMENT: A CONCEPTUAL FRAMEWORK

3.1 Overview

Credit is the heart of banks. The success and failure of banks depend largely on efficient handling of their fund. In the past i.e. 70 to 80 years ago credit was simple because at that time lenders personally knew the borrowers. As commerce and industry grew, the activities of credit management have changed. In the past, credit management was only concerned about the protection of lenders' own funds but in the modern banking lenders are not concerned about the protection of their own funds but also concerned with the future of the industry which borrowers own and the protection of borrowers' funds. In credit management, a credit officer has to do a lot of works. For deciding to grant credit, he has to apply his common sense. Commonsense like, what he has to ensure the safety if he wants to invests his own fund. For investing own funds one has to ensure the (1) Safety of his own money; (2) recovery of his own money; and (3) actual help to others in times of need (Srinivasa 1986, 1).

Like own funds, in making granting decision, a credit officer should satisfy himself/herself about the safety, recovery of his funds, and needs of the borrowers. In granting decision, a credit officer should be careful because a little bit of unconsciousness and ignorance can lead to heavy losses to the bank. This knowledge of lending cannot be taught nor learnt by reading an expertise book but by ones own experience and commonsense and helping attitude (Srinivasa 1986, 2).

3.2 Definition of Credit

Encyclopedia of Banking and Finance describes the origin and defines credit as,

> Credit derived from Latin word "credo" means "I believe", and usually define as the ability to buy with a promise to pay, or the ability to obtain title to, and receive goods for enjoyment in the present although payment is deferred to a future date.

Report of the Committee on Consumer Credit, (Vol. Cmnd. 4596, HMSO, London, 1971, Para.1.2.2) defines credit and explains its function in this way,

> Credit is the provision of financial accommodation to a person, in return for a promise to repay it at some future date. It may be extended as cash, or supply of goods or services. The former type of credit is called lender credit and later is referred as vendor credit. Whatever the classification may be, the economic function of credit is, it enables a person to spend in excess of his/her actual means in present.

In an economy there exist two units. One is a surplus unit and other is a deficit unit. The normal characteristics of credit is that, the surplus unit in the economy, it may be an individual, a corporate body or a governmental institution, has surplus money but denies himself the immediate use of money already in his possession. On the other end, the deficit unit in the economy has an immediate need for the use of the money. Surplus unit makes this money available on a temporary basis to deficit unit in the economy. This kind of transfer of purchasing power from savers (the lenders) to users (borrowers) termed as credit and it paces the economic activities and supports maximum growth and development in the economy (Stals 1998, 1).

3.3 Credit Management

In the simplest form, management is the process of getting things done by others. In the broader concept, management involves various systematic plan and actions to achieve the goal of the organization. Here credit means bank credit which banks generally grant to an individual or a corporate or a government organization with specific interest rate and specific repayment program. Banks take various steps and accomplish various tasks to invest their fund and to ensure smooth recovery of their fund which generally termed as credit management. Hence, credit management is the process of accomplishing various tasks relating to deciding grant or not granting credit to others, determination of terms and conditions, proper documentation, frequent monitoring and reviewing the performance of borrowers and taking necessary steps to ensure smooth recovery of credit which ensure profit maximization of the bank.

In making successful recovery of a loan, effective credit management is needed. Diana and Clayton (1997) identified well developed credit policies and procedures; strong portfolio management; effective credit controls; and most critical elements of all, a well trained staff are the key elements of effective credit management. Credit is the heart of the banking business and by which the quality and the performance of banks are judged. The credit management deserves special emphasis because proper credit management greatly influences the success or failure of financial institutions. Studies of banking crisis throughout the world have concluded that the most frequent factor in the failure of banks has been poor asset (usually loan) quality (Diana and Clayton 1997, 31). Effective credit management would help to prevent and minimize debt default. The ultimate gain from credit management is higher economic growth. Without sound credit management, no economy can grow to its potential (Meyer 2000, 8).

Credit management involves an effective processing of the entire loan transaction, proper evaluation of credit risk, accurate documentation of the loan, security agreements and systematic monitoring of the progress of the loans that will help to minimize loan defaults. Beyond the bank's institutional objectives' sound credit management supports broader national policy objectives by allocating scare financial resources efficiently and it foster economic growth and minimize losses to the economy (Diana and Clayton 1997, 31). Efficient credit management ensures the quality of credit although it significantly influenced by other factors, such as government policy, macroeconomic condition, political influence and the like. Banks in the developing countries are facing the various problems in managing credit and these are government control, external and internal political pressures, production difficulties, financial restrictions, market disruptions, delays in production schedules, and instability in the business environment.

Banks in the developing countries often do not have a well developed credit management process and the main deficiencies of this are:
(1)The absence of written policies; (2) The absence of portfolio concentration limits excessive centralization or decentralization of lending authority; (3) Poor industry analysis; (4) A cursory financial analysis of borrowers; (5) An excessive reliance on collateral; (6) Infrequent customer contact; (7) The Inadequate checks and balances in the credit process; (8) Absence of loan supervision; (9) A failure to improve collateral position as credit deteriorate; (10) Poor control on loan documentation; (11) Excessive overdraft lending; (12) Incomplete credit files; (13) The absence of asset classification and loan loss provisioning standards; and (14) A failure to control and audit the credit process effectively (Diana and Clayton 1997, 32).

3.4 Changing Status and Qualifications of Credit Management (Evolution of credit management)

The major factor contributing to the changing status and qualifications for credit management has been the rapid and tremendous growth of industry and commerce. When business was mostly under the control of a sole proprietor and relatively small in size, the approval of credit was simple and personal matter. 50 to 70 years ago, it was customary that lenders were to visit markets once or twice in a year. At that time borrowers were personally known to lenders, the size of business was small and for a number of year's bookkeepers were in control of the credit management task. With the pace of development of commerce, the personal relationship was lost and some other basis was needed to manage commercial credit. It was logical that the task should fall on someone within the company. As commerce and industry grew, it became apparent that the work of the "bookkeeper-credit man" would have to be divided. Parallel to the commercial and industrial developments of the last couple of centuries a high degree of administrative efficiency has been attained through better organization and specialization. With the organization of the National Association of Credit Management in U.S.A. in 1896 and several other developments supported the significance of professional credit management. Improved sources of credit information; better accounting methods, redefinition of the techniques of financial statement analysis recognized the professional character of credit work. Significant relationships of credit to business finance, production, marketing and financial operations of the business sought out credit work as group and need an increased number of highly qualified people The complexity of modern day business and the need for specialization created this conditions, and it fostered the status held by today's credit managers. Now credit management has moved up to the status of an established business group, with prerogatives, responsibilities, standards, and ethics.

Formerly, a credit officers' attitude was depends largely on the safety of lenders fund. Now this attitude has changed and it includes the attitude of how can I help my customers? Many beneficial results have come from this creative helpful attitude and it was entertained by a number of business and educational people. Modern business techniques and the operation of an effective credit department demand that credit manager will be intimately knowledgeable about the relationships of credit to business finance, production, marketing, and other aspects of the business. All this has entailed a broadening the base of qualifications of a credit manager with greater emphasis upon formal training in both the specialized and general areas of credit management. In the past, in considering a loan proposal, the principal consideration was given on the safety of money lent by banks. In other words, the primary view point was that of the banks protection. Now, lenders are more concerned about borrowers and their business. By using more scientific approach, the credit analyst has been able to discern with greater accuracy the trends of customer's business and its future events with somewhat greater degree of confidence than in the past. This increased efficiency has enabled him to view the problem in another light. Kreps et al. divide this changing attitude of a credit manager in three ways: namely

1) The protective attitude: it is primarily concerned for the banks protection,
2) The constructive attitude: it is concerned about intelligent and exacting analysis by which a salient trend is brought out and future events are prophesied with greater accuracy,
3) The creative attitude: It includes informing the customer of these trends and helping him to avoid unfavorable contingencies (Kreps et al. 1973, 222).

3.5 Definition of some terms: Some terms uses in banking business. Definitions of these terms are given below:

3.5.1 The Lending Credit Officer/ Credit Officer

Rwegasira (1992) defined a lending credit officer as,

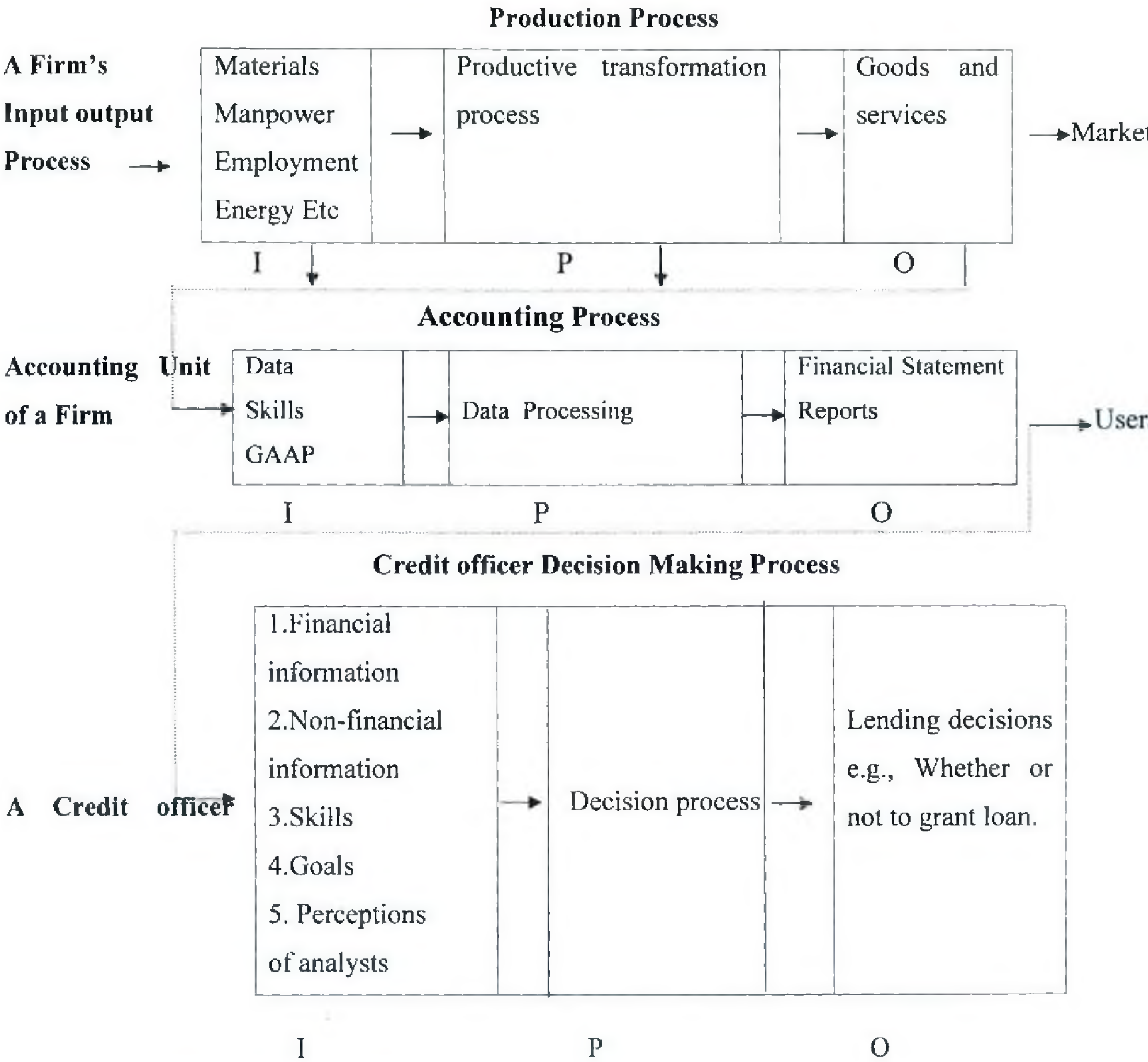
> The credit officer will be defined to be any individual working on behalf of a bank and empowered to decide whether or not to lend to bank customers at some determined interest rate" (Rwegasira 1992, 2).

In his word, a lending credit officer is economically rational and expected to be utility maximizer. For attaining the objective of utility maximization, credit officer would try to trade-off between risks and returns. In this case, the relevant returns or income is in the form of interest payments to the bank, and the risk is in terms of default of a business firm or a company.

3.5.2 The Credit Officer's Decision Making Process

Credit officers' decision-making activity can be compared with production and accounting process. Each of these systems is characterized by specific inputs, a process and output. The following figure exhibits the production, accounting and lending credit officer's decision making process:

Figure 3.1
Credit Officer's Decision Making Process



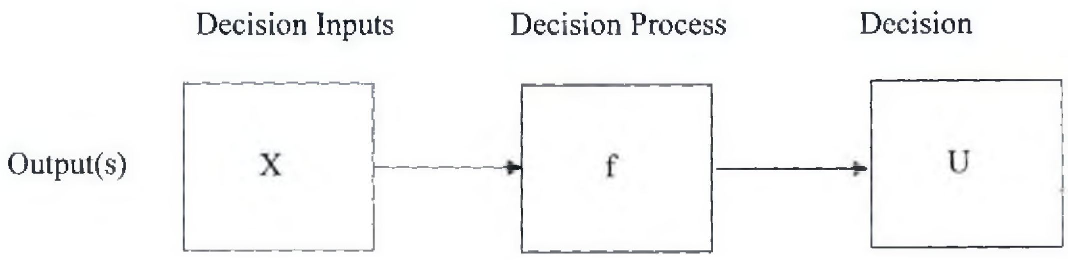
(*Source:* Rwegasira 1992, 6)

The actual inputs of a productive unit include material, manpower, equipments, energy and other monetary and non-monetary economic resources from the environment. The process of the firm consists of the productive transformation of inputs into goods and services i.e. creation of form/service utility. The task of a credit officer is like as production unit and he/she is interested in finding out the ability and willingness of the firm to service the loan to be advanced. To perform this analysis, the credit officer has to acquire various type of information regarding the prospective borrowers' integrity, history, intention and perhaps most important of all his financial ability to service the debt (Rwegasira 1992, 7).

3.5.3 Mathematical Presentation of the Credit Officer's Decision System

The credit officer's decision system can be incisively analyzed by representing it within a mathematical framework. That system can be conceptually mapped as a function that relates a set of decision inputs $X = x_1\ x_2 \ldots\ldots x_n$, which includes, inter alia, financial information, to a unique set of decisions $U = u_1\ u_2 \ldots\ldots u_m$, regarding the loan for which some business customer may have applied. Thus, $(u_1\ u_2\ u_3 \ldots\ldots u_m) = f(x_1\ x_2\ x_3 \ldots\ldots x_n)$, where U is a set of decisions regarding the loan applications which is based on a set of inputs X according to some decision rule(s) f. See the following figure:

Figure # 3.2
Mathematical Presentation of the Credit Officer's Decision System



Each of the sets X and U must contain at least one element, but the number of decision inputs(n) and the number of decisions(m) need not be equal (i.e., $m \neq n$). The characteristics and the nature of the functional rule f, which represents the decision process, will depend on the bank organizational policies, the training, experience, perception and the goals of the credit executive in question. The various inputs are processed according to f. The perceived relevance of these decision inputs to the decision at hand will determine whether the decision rule used by the credit officer will assign a weight different from zero to financial information, a decision input this study is particularly concern with. The relevance, role and importance of financial information in the credit officer's lending decisions therefore, are very closely related (Rwegasira 1992, 8-9)

3.6 Conceptual framework

Credit management involves various tasks. For clear understanding the credit management, it is needed to know the meaning of various concepts involve in credit management. The following subsections describe the various aspects of credit management.

3.6.1 Steps in Credit Management

Credit management task starts from making strategic targets for credit markets and end with recovery of credit. Broadly credit management involves the following main steps:

First, one must determine priority sectors he/she is interested to lend and prohibited sectors he/she is not interested to lend (Credit policy formulation),

Second, one must determine which borrowers are likely to pay their debt (Credit investigation and analysis),

Third, one must decide how much credit he/she is prepared to extend in each borrower (credit approval),

Fourth, he/she must decide what evidence he/she need of indebtedness (Documentation),

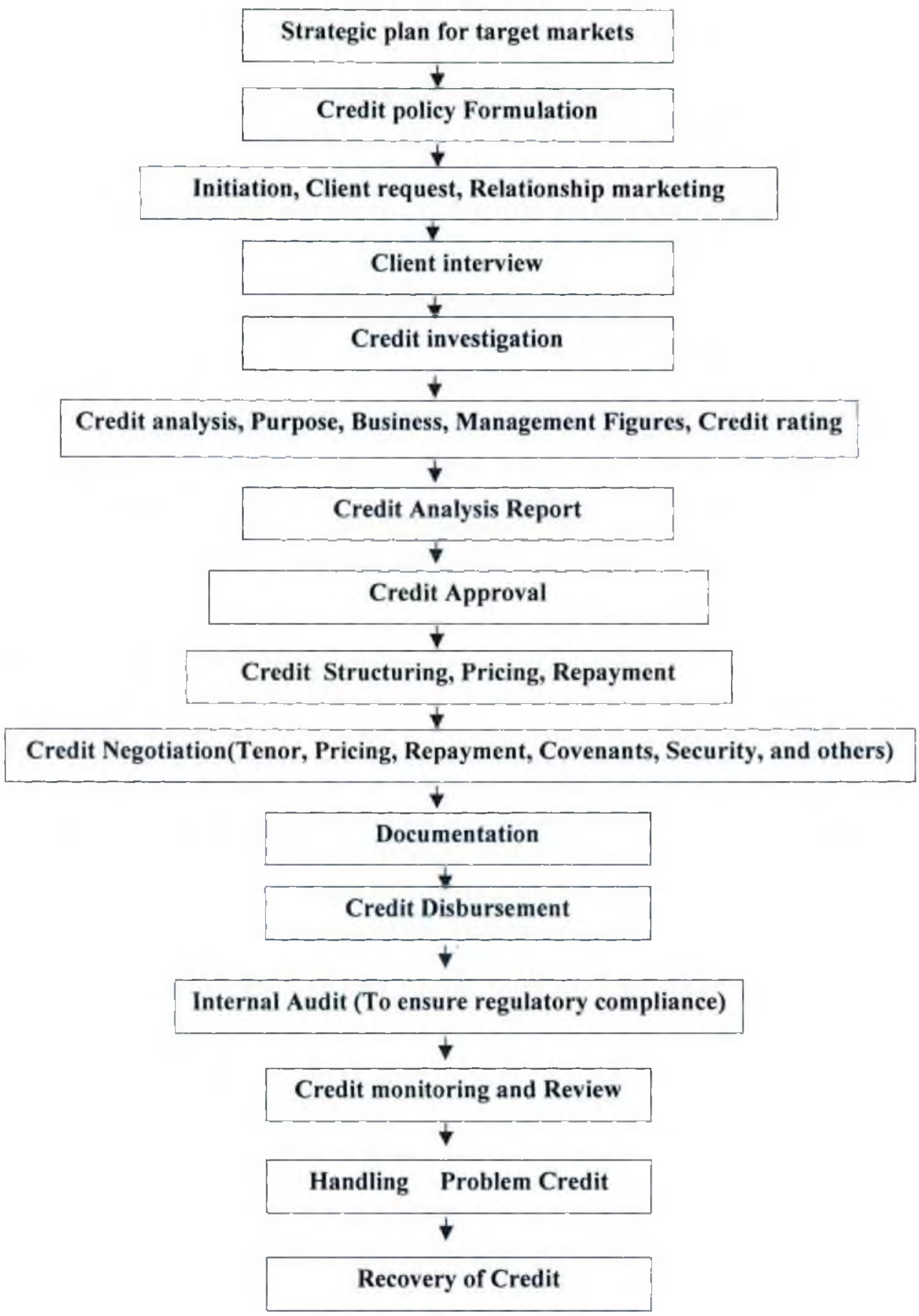
Fifth, after he/she has granted credit, he/she has the problem of collecting the money when it becomes due. How does he/she keep track of payments? (Monitoring, review, and loan recovery)

By analyzing the above steps, the study identifies the following steps in credit management: (i)strategic plan for target credit markets; (ii) credit policy formulation; (iii) client request/relationship marketing; (iv) loan interviewing; (v) credit investigation; (vi) credit analysis; (vii) preparation of credit analysis reports/ preparation of proposal; (viii) loan sanction, loan structuring, loan negotiation; (ix) loan documentation; (x) loan disbursement; (xi) loan monitoring/review; (xii) problem loan identification and resolution and (xiii) loan recovery.

3.6.2 Flow Chart of Credit Management

From scholarly literature, the study develops the following flow chart of credit management.

Flow Chart # 3.1
Credit Management



3.6.3 Theoretical framework of the aspects/Components/Steps of credit Management

Scholarly knowledge and understanding about the steps of credit management i.e. what are the basic characteristics of the steps of credit management, theoretically and empirically? What are its roots, how it was developed? How does it perform? What are its strengths and weaknesses? How does each step play role in the light of non-performing loans burden afflicting all banks? All are incorporated here into a vigorous theoretical framework.

3.6.3.1 Strategic Plan for Target Markets

Every bank should develop a strategy by targeting markets where they are interested to invest in current year and in future. For formulating this strategy, every bank must have adequate data about the economy and the prospect of the sectors. By analyzing these data, bank management can be able to determine which sectors would be profitable for them and how they would invest in these particular sectors.

3.6.3.2 Credit Policy

The primary task of the bank is to collect deposit and to lend it. To ensure efficiency in this process a bank must decide what types of loans they will or will not make, in which sector they will invest in and where not, what types of loan they will make and what not, to whom it will lend and to whom not and what are the conditions, one has to fulfill to receive loans. Bank's credit policy usually reflects the above directions. Credit policy reflects the wisdom of banks and their intention about what they are actually wanted to do and what not. As for any business, credit management in the bank lending aims to measure and control the risk exposure and to achieve maximum profits by limiting exposure to defaults that is default rate. The restriction placed by law, administrative agencies, and bank examiners regarding lending cannot ensure the profitable lending. For this, to establish credit policy and guidelines bank typically integrate business strategy with legal and regulatory constraints. Individual bank credit policy reflects guidelines regarding the size of the loan portfolio, the maturity of the loans, prohibited loans, limits of loans and the type of loans to be made. These policies regarding lending are best described in the bank's credit policy. Credit policy helps an institution develop strategies consistent with the profitability expectations of the institution within an expected level of assets quality. A credit policy gives loan officers and bank management specific guidelines in making individual loan decisions and in shaping the bank's overall loan portfolio. Credit policy is an anchor for a bank from which a boat swings with wind and tide. The anchor keeps a boat from drifting in the changing condition. Like an anchor, a strong credit policy keeps a bank tied to the bedrock of basic credit standards (Mueller 1994.Quoted from Altman et al 1995, 11). Mott (1977, 4) views that credit policy should include: legal consideration; delegation of authority; types of credit extension; pricing; market area; loan standards; and credit granting process.

3.6.3.2.1 Components of a Standard Credit Policy

Gupta (1995) recommended thirteen aspects for a good lending policy. The aspects are: (1) Corporate mission statement, (2) Analysis of the present credit portfolio, (3) Broad objectives of the policy, (4) Preferred area of lending, (5) Discouraged areas of lending, (6) Strategies to achieve the above objectives, (7) Exposure limits, (8) Liquid gap analysis, (9) Spread management, (10) Credit expansion policy, (11) Combating the growing menace of NPA's (12) Industry wise specialization, and (13) Pricing strategy.

In addition to the above components, credit policy may contain: (1) Specification of the lending authority given to each loan officer and loan committee (measuring the maximum amount and types of loan that each person and committee can approve and what signatures are required), (2) Credit granting process, (3) Lines of responsibility in making assignments and reporting information within the loan department, (4) Operating procedures for soliciting, reviewing, evaluating, and making decisions on customer loan applications, (5) Lines of authority within the bank, detailing who is responsible for maintaining and reviewing the bank's credit files, and (6) A discussion of the preferred procedures for detecting, analyzing, and working out problem loan situations.

3.6.3.3 Credit initiation/ Client request/ Relationship Marketing

Traditionally, borrowers apply to the bank for loan. Most banks in Bangladesh follow this tradition. This tradition has changed. Now in the most developed countries, commercial banks have introduced the relationship marketing which means credit officers are approaching borrowers for marketing their credit. Most of the banks in developing countries and also banks in Bangladesh are now thinking to introduce relationship marketing.

3.6.3.4 Loan Interviewing

Commercial credit is viewed as a screening process in which the first stage is the loan interview. Clemens (1973, 125) states that

> It is an education to watch and study a man of real stature as he deals with a top-level customer.

The goal of loan interview primarily is to collect information to judge the creditworthiness of borrowers. But this is not the only goal of loan interview. Pace et al. (1977) identified multiple goals of loan interview such as:

1) There is a unique opportunity to convince customer that he has chosen the best bank in town which ultimately enhances the goodwill of the bank.
2) It facilitates the collection of necessary information to reach a loan decision.
3) It gave an opportunity to build new bank business.
4) Credit interview enables credit officer to obtain enough data and understanding to ensure that the loan can be collected.

After interviewing the borrower, the loan officer will be in a position to make decision whether he will continue with the lending process or not.

3.4.3.5.1 Credit Investigation

The basis of extension of credit is the credit officer confidence about borrowers' willingness and ability to discharge his obligation in accordance with the terms of the agreement (Kreps et al. 1973, 141). If a credit officer confirms after interviewing that the amount and the purpose of the loan falls within the bounds of the banks lending policy and the loan meets the bank's most basic lending criteria, the next step of credit is credit investigation (Ruth 1990, 97). Credit investigation is the process of acquiring enough information from different sources to determine the loan applicant's willingness and capacity to service the proposed loan. Upon completion of credit investigation, the loan officer should have a sufficient idea of the client's reputation, character and experience; the company's past and present record and probable future performance. Some commercial banks have both commercial loan department and credit department. If banks have both departments, credit department has done most credit investigation activities. For meaningful investigation one has to follow some steps. Kreps et al. (1973, 124-125) identified the following steps of credit investigation:

> In credit investigation first step is to decide what questions justify the work of obtaining answers. Second, the credit officer should determine who is best suited to handle credit investigation. Third, what are the probable sources of information?

For conducting credit investigation, a credit officer must have adequate knowledge about information need and sources. If a credit officer needs any assistance, he/she should give explicit, clear directions to anyone who will assist him/her in the credit investigation. Effective investigation needs delegation of jobs to those best qualified to execute them.

3.4.3.5.2 Qualifications of a Credit Investigator

There is no basic boundary of qualification for an investigator. It is customary that an investigator should have knowledge in several basic fields. Since financial statement information is a key in lending decision, the educational background of an investigator should include knowledge of accounting. When the investigator looks at information from financial statements, he or she should be able to focus on what the questionable or missing items are and how these should be collected. An investigator should be familiar with financial data such as; composition of assets and liabilities, operating percentages, and basic ratios. He/she must also have the capability to spot working capital deficiencies, inventory buildups, equity needs, and other sign of problems that an investigator thinks relevant to ask. An investigator should be familiar with credit and financial terminology. The terms in this area are trade term, description of different forms of lending arrangements, terms commonly used by banks and business credit personnel in describing business and financial conditions. He/she should also be knowledgeable with the code of ethics for the exchange of credit information and the statement of principles for the exchange of credit information between banks and business credit grammars. An investigator should be fully aware of the legal ramifications involved in the exchange of commercial credit information. Knowledge of business law and law of contracts also becomes a necessity in understanding many transactions, especially those dealing with documents, negotiability, ownerships, dealers, agents, consignments, and the like. An investigator should also be able to contact consulates, embassies, and trade development offices (Heinemeyer 1980, 24-26).

3.4.3.5:3 Sources of Information

The sources from where information can be obtained may be classified into four general groups: (a) Information supplied by the credit applicant, (b) Lending officer query (c) Internal sources of information and (d) Information furnished by other sources.

(A) Information Supplied by the Credit Applicant: The following information can be obtained from the applicant (1) Type and amount of loan, (2) Proposed sources of repayment, (3) Plan of repayment, (4) Name of collateral or guarantors, (5) Names of previous and current creditors, (6) List of primary customers and trade suppliers, (7) Firms account, (8) Principal officers and shareholders, (9) Personal and business history, (10) Three or more years financial statements, (11) Personal income tax returns, (12) Borrowing authorities and (13) Insurance and continuing guarantees.

(B) Lending Officer's Query: The lending officer may inquire information relating to (1) Characteristics of borrowers market, (2) Sales and distribution channels, (3) Production process, (4) Labor relation, (5) Experience and educational background of principal owner or executives, (6) Name of the person who will take charge in absence of current Chief Executive Officer (CEO), (7) Firm strategic planning program, (8) Tentative difference of present market and future market opportunity, (9) Comprehensive strength and weakness of the firm, and (10) Personal liabilities of applicants and guarantor.

(C) Internal Sources of Information: Information may also be collected from the following sources:

(1) Credit file of present or previous borrowers, (2) Deposit account of present and previous customers, (3) Past payment performance, (4) Principal customer, suppliers and other creditors (Through account analysis of applicant), (5) Income from investment and employment, (6) Income tax returns, (7) Depreciation and other information from income tax returns.

(D) External Sources: Following external sources may also be used to collect information about borrowers and his business:

1) Central bank credit information bureau (CIB) 2) Commercial publications: (a) Stock exchange publications, (b) Special purpose directories, (c) Articles on published trade publications.

There are other sources like banks and trade checks, credit reporting agencies, reference materials and periodicals, public records, government agencies, Income tax/ wealth tax/ sales tax assessment orders, newspaper reports, market bulletins, etc.

3.4.3.5.4 Centralization versus Decentralized Investigation

The success of bank's credit investigation depends largely on the bank's organizational structure and the scope of its responsibility. Structure of investigation varies from bank to bank. Some uses centralized and some decentralized form of credit investigation. Several variations of centralization and decentralization exist among the banks and have been created to meet individual bank and customer needs. Some of the basic ones categorized are as follows:

1) Completely Centralized: In a completely centralized investigation system, one unit is responsible for all foreign and domestic account investigations and answering of references inquiries on customer accounts. This form is usually adopted by banks with a limited number of branches and where lending to major customers is done from the main office.

2) Partially centralized: **a) Foreign-domestic**: Foreign investigations are decentralized while domestic investigations are completely centralized. It is applied where there is a large overseas network. This separation also occurs when a bank is structured around international and domestic departments and each department services its own customers.

b) Accounts-non accounts: Non-account investigations are centralized, but account investigations and the answering of inquiries on accounts are decentralized i.e. they are handled by the appropriate branches.

c) Centralized with exceptions: These exceptions usually include specialized departments such as real estate, consumer lending, personnel, finance companies etc. All other departments would work through centralized account and non-account investigation units.

3) Completely Decentralized: In this form, each department or branch services its own needs and possibly those of its customers, including account and non-account investigations. This situation usually occurs where banks assign customers to specific groups that are responsible for all services (Heinemeyer 1980, 27-28).

A complete credit investigation should result the accumulation of adequate information with respect to every significant factor pertinent to the applicant. Now the question is, what are the significant pertinent factors should be collected by investigator? Heinemeyer (1980, 144-147) suggested the following principal factors on which attention should be given at the time of credit investigation:

(a) Antecedent history of the company, (b) Experience and ability of the company's management, (c) Exact nature of the company's operation, (d) Company's present financial condition and conditions that existed for the past three to five years, including a review of financial statement and other statements, (e) Conditions of the company's plant, (f) Experience and opinion of banks regarding the company, (g) Trade opinion and ledger experience of concerns from which the company has been purchasing, (h) Trade competitor's opinions, (i) Conditions both within and without the industry, and (j) Extent and nature of government competition and regulation, and effect of present or prospective legislation.

3.4.3.6.1 Credit Analysis

Shanmugam et al. (1992, 358) defined credit analysis in this way

> Credit analysis is the process whereby both quantifiable and subjective factors are evaluated simultaneously and judged.

Libby (1979, 35) describes the main task of credit analysts, is to judge the prospective borrowers' ability and willingness to pay the obligation as stated in the loan agreement. It also analyzes many other internal factors of bank's such as portfolio composition, regulatory constraints etc. Credit analysis is not a new concept. It is the shorthand interpretation of information in which the organization is interested (Rwegasira 1999, 9). The end objective of credit analysis is to minimize loan losses and non-performing loans. From very beginning of the history of credit, a credit officer tries to ensure the safe return of their investment by analyzing the creditworthiness of the borrowers. But the formal credit analysis system has not developed many years ago. Beaver (1966) initiated most sophisticated model for credit analysis. Following the work of Beaver, Altman (1969) the pioneer of model based credit analysis developed a score based credit analysis model. After that many researchers have developed various credit analysis models around the world (Present value model, Judgment model etc.). In recent past a lot of quantitative and qualitative models have been developed for credit analysis. One of the most recent models is VaR[†]. But these sophisticated models require extensive data and authentic information. Bangladesh has been suffering from extensive data and authentic information availability and unable to adopt these kinds of models in credit analysis. Despite various model developed across country for credit analysis, Altman "Z" score model still widely use in the world, no exception in Bangladesh.

[†] Value at risk is a recently developed statistical model for credit analysis

Credit analyses are made to identify and isolate financial and other non-financial strengths and weakness of the borrowers or his/her organization. For accepting a company, financial analysis i.e. financial returns and costs of a company, economic analysis i.e. effect of the company or business operation on the economy are generally measured. In credit analysis, financial and non- financial factors of the loan applicant must be taken in to consideration. Non financial factors analyses are purely based on judgment. In judgmental system, credit analyses rely on the credit officer's experience and insight. In this method of credit analysis, subjective judgment can be made by evaluating applicant's credit history, the past payment record, apparent sincerity, banking history and others. Empirical credit analysis, referred as credit scoring, where assign point values to various components. These points are added to award the applicant a numerical score which is then compared with a predetermined accept-reject score. Statistically credit-scoring systems have two technical flaws that are commonly cited. First, the borrowers use data which are historical and might be obsolete in detecting current predictors of creditworthiness. Second, the data consist of only those loan applications that have been accepted and omit applications that have been rejected (Libby 1979, 362).

Financial statements are one of the most important sources of information used by credit officers and credit analyst in determining whether to lend money or grant credit, and how much. But in using corporate financial statements, credit officers and credit analysts need to have some assurance that the figures contained therein are reliable. In using credit analysis models, a credit officer uses information collected from various sources but models based on information from companies annual financial statements are better able to predict bankruptcy. However, a qualified audited statement may reinforce the models findings and thus give greater prediction confidence that the company will be in financial trouble (Firth 1980).

Credit analysis is an art, not a science. Experienced lenders will frequently acknowledge the difficulties of credit analysis. Reasons for this complexity are; the inherent uncertainty in forecasting financial performance, the difficulty of making character assessments, the wide range of factors that can cause credit problems. Ultimately, credit officers need to make judgments based on less-than perfect information. (Calhoun 1992, 37)

3.4.3.6.2 Role of Financial Information in Credit Decision Making

In order to talk meaningfully of the specific role of financial information and analysis in the credit officer's decision making process, it is necessary to know more specifically how the credit officer arrives at his decisions. For this discussion, Rwegasira (1992) developed and used a simple and perfectly specified decision model to study the role of information in credit decision making process and the model is: Assume that a credit officer is faced with:

(1) a set of mutually exclusive and exhaustive courses of action to be denoted by α. A specific course of action will be symbolized by a, where a Є α, to simplify the analysis, assume that the credit officer evaluating the loan application can choose one- and only one– of the two possible actions: a_1 –grant the loan, a_2 –do not grant the loan. This characterizes the basic and essential feature of the decision, he has to make on every loan.

(2) a set of mutually exclusive and exhaustive future outcomes associated with each possible action in the set a, to be signified by B with a specific outcome denoted by b Є β. This set also will be assumed to have only to outcomes: b_1- the loan will be repaid and b_2- the loan will be defaulted. Only one of the two will occur.

(3) a set of probabilities P(b) attached to the future outcomes. In this case P (b_1) and P (b_2) correspond to the two assumed future possible outcomes.

(4) a set of utilities indicating the credit officers' subjective preference with respect to the possible outcomes. These utilities are defined for each possible combination of action – outcome and denoted by U (a, b).

If the credit officer behaves according the expected utility theory, he will be choose action a Є α with the highest expected value of utility. The expected utility from selecting a specific course of action a, to be denoted by E(U/a) is :

1.1 $$E(U/a) = \sum_{b \in B} U(a,b)\, P(b)$$

and the optimal action would be :

1.2 $$E(U/a) = \max_{a \in \alpha} E(U/a) = \max_{a \in \alpha} \sum_{b \in B} U(a,b)\, P(b)$$

For our simplified credit officers decision settings, if $Ø_{ij}$ (i =1,2; j = 1,2) represents the utilities for a combination of action i and outcome j, i.e, $Ø_{ij}$ = U (a_i, b_j), the credit officer will choose to grant the loan, if :

$E(U/a_1) \geq E(U/a_2)$, or

2 2

$\sum U(a_1/b_j)\ P(bj) \geq \sum(a_2/b_j)\ P(bj)$......from 1.1

$j = 1 \qquad\qquad j = 1$

in other words,

$U(a_1/b_1)P(b_1)+U(a_1/b_1)P(b_2) \geq U(a_2/b_1)P(b_1)+U(a_2/b_2)P(b_2)$

which means,

1.3 $\acute{\emptyset}_{11}\ P(b_1)+ \acute{\emptyset}_{12}\ P(b_2) \geq \acute{\emptyset}_{21}\ P(b_1) + \acute{\emptyset}_{22}\ P(b_2)$

Otherwise, he will not grant the loan.

From the mathematical expression 1.3, it is clear that once the set of actions, the set of outcomes and utilities (present in figure #3.3), are known, they are fully specified and, by definition, are unaffected by information. Therefore, the information in general will serve the purpose of aiding the credit officer in arriving at probabilities associated with various future outcomes. Thus, the role of financial information within this context is to assist the credit officer, in conjunction with the non-financial information, to arrive at default probabilities of prospective business borrowers.

Figure# 3.3
Default probabilities of prospective business borrowers

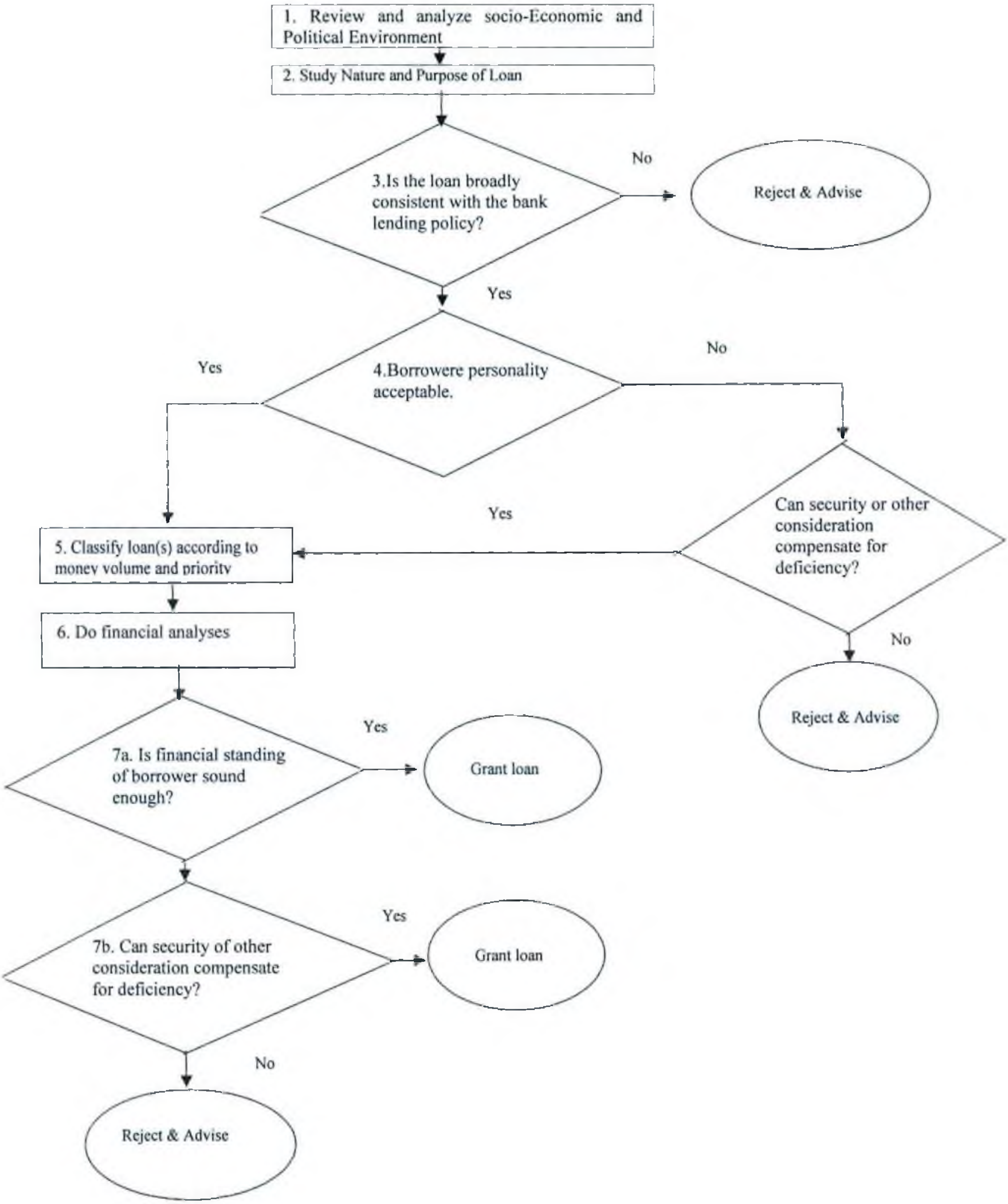
Outcome b_j / action a_l		(Repayment) b_1	(Default) b_2
(grant)	a_1	$\acute{\emptyset}_{11}$	$\acute{\emptyset}_{12}$
(do not grant)	a_2	$\acute{\emptyset}_{21}$	$\acute{\emptyset}_{22}$

Source: Rwegasira (1992, 9-11)

3.4.3.6.3 Optimal Approach to Lending Credit officer's Financial Analysis (An integrated analysis)

Rwegasira(1992) argued that credit officers credit analysis approach should has to have a good balance of both financial(accounting) data and non-financial factors, with the information about the latter forming a contextual stage for the analysis and appreciation of the former. He opined that such an approach should take advantage of an integrated analysis, which mixes intuitive sensitivity and analytical incision, responds to qualitative as well as quantitative data, and blends insight and wisdom with management science. His suggested approach, illustrated in fig #3.4, can be outlined in a number of the following sequential steps. The credit officer should:

Figure# 3.4
Optimal Approach to Lending Credit officer's Financial Analysis (An integrated analysis)



Step1. Review and analyze the socio economic and political environment, always looking for those factors or developments (esp. in industry) of significant bearing to the lending decisions.

Step 2. Examine the nature and purpose of the loan.

Step 3. Compare the loan with the general bank lending policy. This assumes the bank lending policy will provide broader guidelines as to implications of economic and social policy and law; stipulate the range and degree of risks acceptable; and indicate delegated authority in lending decisions at various levels of organization. However, it is also assumed that the policy will be broad enough to leave some amount of discretion at every level of decision making.

Step 4. Scrutinize the borrower's personality and assess if it is acceptable. For an individual, one would be looking at his character, but for a company one should look at what may be called "corporate personality" in organizational behavior. Such a scrutiny may help in assessing the willingness to pay, which is generally taken for granted in many lending institutions. Where the character or personality of borrower is deficient, one has to check if such deficiency can be offset by the security.

Step 5. Classify the loan(s) according to money volume involved and degree of national as well as organizational priorities. The consideration of money volume is supposed to reflect also the degree risk associated with the loan. This procedure may be a necessary step before financial analysis is done. This type of classification is relevant even with industrial or similar categories of loans.

Step 6. Do the financial analysis. Classifying before doing financial analysis implies that varying emphasis is going to be put on the results of this analysis itself is going to be approached slightly different from one class of the loans to another. The goal of financial analysis is to diagnose ability to pay.

Step 7. Check for security offered or some other consideration which may meaningfully compensate for deficiency, if any, in financial strength or character.

Step 8. Provide financial advice which could preferably be used to reshape the credit application where possible and necessary (Rwegasira 1992, 48-49).

3.4.3.6.4 Components of Credit Analysis

Scholarly literature has developed some basic components of credit analysis which we term as "Cs of credit". Here is a brief description of the principal Cs of credit:

C: Character, C: Capital, C: Capacity, C: Collateral, C: Consequences, C: Cash Flow, C: Condition, C: Current information, C: Customer relationship, C: Corporate life cycle, and C: Economic Condition.

3.4.3.6.4.1 Character

In commercial lending, character refers to the client's willingness and determination to meet loan obligations. Unlike the financial performance indicators that appear on balance sheet, character is an inner quality that is exhibited by such qualities as integrity, stability and honesty. Responsibility, truthfulness, serious purpose, and serious intention to repay all monies owed make up what a credit officer calls character (Rose 2002, 528). For a single person it is the character and for big companies or firms it is the corporate personality. The concept of corporate personality is a relatively new construct even in organizational theory. Corporate personality or character is related to the profile of behavioral characteristic which distinguishes a firm as an individual entity and gives it its image identity and guides its decisions. One of the early writers to affirm the existence of corporate personality was W. H. Newman. Thereafter, a number of writers have been observed drawing the concept into various scenes, including even some who attempt to show that corporate personality could in one way be determined through the analysis of accounting and financial reports, and particularly the depreciation policies (Sorter and Becker 1964, 183-196 Quoted from Rwegasira 1992,71). The character of a business client is best judged through years of dealing with that person. However, many first time loan applicants are unfamiliar to commercial loan officers and usually take more than one interview and credit investigation to make an accurate appraisal of character. Lucas (1973, 66-76) suggested the followings; a credit officer should look at the answer of these questions for judging character of a borrower:

> (1) Does he have proven honesty? What is his past credit history? (2) What is his experience in this field? (3) What is his expertise in his field? (4) What are his administrative abilities? Is he an organizer-planner-can he supervise people? (5) Intelligence- is he quick to see a problem and then act to correct? (6) Is he ambitious or lazy? (7) How does he communicate with you as a loan man? (8) What are his habits and how does he conduct his personal life?

Clemens (1973) adds 'frankness' and integrity of individual(s) to the above components of character. The corporate firm's character or personality fundamentally influence and reflected by things like quality of management, the firms management philosophy and culture, the past record of achievements and failures, organizational effectiveness, organizational efficiency, its social commitments and the like (Rwegasira 1992, 74). Organizational effectiveness can be measured through economic (Profitability, growth, etc.) and behavioral (Consumer satisfaction, workers satisfaction, labor and executive turnover etc.) aspects.

3.4.3.6.4.2 Capital

Capital represents the funds available to operate a business, of which there are two portion viz. equity capital that is invested in the business by the owners and the borrowed capital that is borrowed from other sources. Credit officer should concern about the equity capital because more the equity capital more sincere would be the owner about their stake hence more safeguard will be the borrowed funds. Lucas (1973, 66) advocates that a credit officer can judge the stake of owner by investigating the following aspects:

> (1)The value of assets, (2) The value of liabilities, (3) Whether equities he has in his assets give adequate backup for his loan request, (4) Whether capital increased from profits or form appreciation in stating assets (5) What assets and liabilities does he have outside the business?

3.4.3.6.4.3 Capacity

Ruth (1990, 99) defines capacity as,

> Management ability to generate enough cash to satisfy all obligations is defined as capacity.

Capacity also means borrowers' business acumen and management ability to deal with men and matters so that he would be able to make effective and profitable use of funds, thereby able to repay the dues (Srinivasa 1986, 18). It is easier to evaluate the capacity of a going concern by past financial performance and reputations. It is easy to judge the ability of repayment of a going concern through past record of accomplishment. If the business is new, it is relatively more difficult to evaluate the capacity of it. The followings are the indicator by which one can judge the repayment capacity of borrowers: (1) Collection of notes and accounts receivable, (2) Income, earnings, or new equity contributions, (3) Borrowing from other source, (4) The education and experience of each member of management (5) Involvement in other enterprises etc.

3.4.3.6.4.4 Collateral

Collateral is the secondary sources of repayment. If the cash for repayment of a loan is not available from the earning of the business then collateral is used for repayment of the loan. Collateral offsets the weakness of other cash. In most of the banking system, collateral is mandatory. However, in modern and aggressive banking collateral is less important. The key aspect in the collateral is the use of a test of reasonableness about true current values. Maintenance of adequate margin collateral is only as good as the documentation required to perfect it. Dealing with collateral, a credit officer should keep in mind the followings: (1) Possession of the assets, (2) Valuation, (3) Age, condition, technology, (4) Marketability etc.

3.4.3.6.4.5 Consequences- Purpose

In making granting decision, a credit officer should confirm the purpose of the credit. Lucas (1973, 66) suggested that to gain an insight into the purpose of the credit, a credit officer should inquire about the questions: (1) Is the loan a productive one? (2) Does the loan replace other creditors? and Why? (3) Will the borrower and the bank benefit on both short term and long-term basis? How is it in each case?

3.4.3.6.4.6 Cash flow

Credit from banks can be paid only with cash. Banks cannot barter with a loan of grain, a bale of cotton, and a piece of equipment or an account receivable. In judging credit request, the credit officer must be sure that, the borrowers have the ability to generate enough cash, in the form of cash flow, to repay the loan. There are three sources of generating cash to repay the loan: (1) Cash flow from sales or income; (2) Sale or liquidation of assets or; (3) Funds raised by issuing debt or equity securities. However, credit officers have a strong preference for cash flow from sales or income as a principal source of repayment. Traditional lender may never address the importance of cash flow analysis. In modern bank credit, lender should know the concept of what cash flow is; why it is needed, and how to confirm there is enough? The objective of cash flow analysis is to evaluate how well a company has generated cash flow internally to supports assets needs caused by growth, to repay interest and principal. By analyzing cash flow the lender can get two answers: (1) Will the expected cash receipts of a business during the term of a loan be adequate to meet all required cash payments? (2) Has the firm the financial flexibility to survive a period of adversity where the firm failed to generate enough cash flow? By analyzing cash flow lender can also gain an insight into causes of loan purpose, repayment sources, estimation of fund needed to finance operation or capital investment cycle, and arrangement of loan terms that assures repayment of borrowed money (Nordren 1986, 3-17). Now the question is how a credit officer will conduct cash flow analysis? What are the available formats for cash flow analysis? There are a lot of formats for cash flow analysis but generally two formats namely top-to-bottom format; and asset conversion format are widely used by credit officers in cash flow analyses.

3.4.3.5.4.7 Conditions

Condition means market or economic condition is one of the traditional Cs. Conditions suggest a forecast of the most likely sale figure and profitability for the coming year. By analyzing economic, industry, or business conditions, a credit officer can get an answer to the question: Can the borrowers repay? When times are good and things are going well, almost all customers can repay. However, when times are hard or things are not going well, a credit officer should search to find the answer to the question: Can the customer still have the ability to repay the loan? To get the answer sensitivity of conditions analysis is also a critical issue in credit analysis (White 1990, 11). There is an alternative interpretation of conditions. The essence of condition risk is the sensitivity of a borrower to general business conditions. In other words, how vulnerable is the borrower to change in the economy? When the general economy turns sour, just how badly will your client business be affected? To credit analysts it is important to know just what regularities (relation) exist and what changes might be occurring with the changing economic condition. Now the question is how we can measure the sensitivity. One simple and direct approach is to examine the stock market pricing data for various kinds of companies. The common instrument for measuring sensitivity is widely used statistical tool "beta coefficient". Beta shows how a stock's return is moving relative to return in the overall stock market. We use market price of stock for publicly traded companies to measure beta. Often, of course the bank client will not be a publicly traded firm. In this case, a look at the betas of other companies may be informative to the analysts. In other words, check and compare the betas of publicly traded companies in the industry where the client belongs. While betas for other companies are certainly not definitive measure of a particular client risk, they may provide a "feel" for the potential market vulnerability of the client. Finally an evaluation of conditions enables analyst to know something about how certain businesses react to changing business environment. (Lepley 2004, 62-65). Whether we like it or not, risk is common for loan package. Unfortunately, we don't always get a clear idea about the magnitude of it. To identify the risk the credit analyst's job is to look for clues, compare it with others from the past. The basic idea is to think about what could go wrong in a given loan request, based on the borrowers characteristics and the accepted wisdom on how similar businesses tend to behave. Better yet, how about future cash flow from operation? But economic experts among us do not have excellent result when they come to forecast business.

3.4.3.6.4.8 Current Information

To make good commercial lending decisions, credit officers need useful information about certain critical variables (Kemp et al. 1990, 47). Information is of two types: financial and non-financial. To make a good credit judgment financial as well as non financial information should be taken into consideration. A credit analyst can get financial information from the published financial statements and other published records. For getting non financial information credit analysts should look at the management ability and uses his/her experience for analyzing it. Financial statements contain lot of information. There is a debate that which information is more important to lender in their lending decisions, and to what weight should be given to particular information. A lot of models have been developed for credit analysis where financial (Altman "Z" score) and financial and non financial information (LRA[†], VaR etc) were given proportionate weight

3.4.3.6.4.9 Customer Relationships

Customer relationships come into play in answering the question "Will the customer repay." If credit officers have existing relationships with customers, then they have additional information and experience to bring to the analysis. If credit officers do not have this experience, they will need to gather information to decide whether they want to have a relationship with these customers or not. It is a conception that a customer of another institution approached for credit will be treated as "red flag". In this case a credit officer should look for the answer why didn't the customer borrow from his or her existing institutions? In today's highly competitive banking environment,

[†] LRA: Lending risk analysis(LRA) is a model adapted in Bangladesh for assessing creditworthiness of borrower

however, banks are actively trying to take away good customers from other. Customer relationships also relate to the question "can the customer repay". A credit officer can procure the answer from information about past credit experience with his/her institution (White 1990).

3.4.3.6.4.10 Corporate Life Cycle

There are three stages of corporate life cycle viz. "growth" "mature" and decline stage (Kane et al. 2003). Growth stage firms are characterized by younger, smaller, less well capitalized, limited line of credit. Suppliers are reluctant to extend liberal terms of credit to these firms and these firms have limited access in the capital market. Declining firms are characterized by limited access in the line of credit, high cost of financing. For both growth and declining firm's internal cash resource is important to avoid distress. For credit analysis in case of growth and declining firm's credit officer should look through the liquidity ratio that proxy for internal cash resources. For mature firms one should expect that firms be relatively more focused on cost efficiency. For mature firm analysts should look at whether firms are in maintaining sufficient competitive advantage and related efficiency such as "economics of scale" premium pricing from effective product and service differentiation, and / or low cost advantage from inputs such as labors, suppliers, and so forth. Thus, net income-based ratios should be most useful in assessing the creditworthiness of mature firms. Kane et al. (2003) viewed that consideration (incorporation) of corporate life cycle in existing statistical models that are used to predict financial distress greatly enhance the explanatory and predictive ability.

3.4.3.6.4.11 Economic Condition

For credit analysis, analysts should consider the economic indicators. Literature supports that (Liu et al. 2003) economic indicators like unemployment rate, inflation rate, bankruptcy filings, and stock markets return have strong power for forecasting credit risk.

Credit assessment is not an exact science. There is no single item of information, such as a single financial ratio can ever be appropriate to decide whether a company is a good credit risk or not. The analyst must assemble a variety of information, both financial and non-financial, to make a well-reasoned assessment of the risk involved in giving credit to the customer. In many cases, different items of information about a company could seem to conflict and point to a different conclusion (Credit Risk Management Series 1992, 2). For credit analysis, there are myriad credit concepts and analytical techniques developed in the world wide. With the innovation of computer and modern mathematical tools it is possible within minutes to conduct an extensive analysis of ratios, trends, margins, industry comparison, working capital need, liquidity, leverage, capital adequacy, assets turnover, and cash-flow (Still 1984, 2). Deregulations and increased competition force banks to grant more unconventional longer-term credit facilities to maintain market share and profit margins. Increasingly, banks are basing their credit decisions for these facilities on sophisticated financial analysis (Rizzi 1984, 2). The tool and aids of credit analyses have advanced to a sophisticated level; yet an improvement in the quality of analytical tools does not ensure an improvement in credit decision making (Still 1984, 2).

3.4.3:7.1 Credit Analysis Reports /Preparation of Proposal

Credit analysis reports are part of a loan approval process. This process attempts to determine repayment ability, so analyst's reports are vital to communicate analytical findings as quickly as possible. A credit officer of a bank branch where a borrower applied for credit usually assembles and transmits the credit department the financial and credit information relevant and necessary to the preparation of a credit analysis. The officer usually provides instructions detailing the proposed loan request or the work required of the credit department. The credit department manager typically determine the scope, depth, and completion date of the analytical work requested in accordance with the credit officer's proposal and time constraints. Scope refers to the number of entities to be analyzed, and depth refers to the degree of historic and forecasted information to be evaluated. In general, scope increases as the number of borrowers, endorsers, and guarantors and size of the collateral base increase. Depth increases with the increases of terms of the accommodation, amount of the credit and the risk. The report should always describe the proposed loan structure, appraise repayment ability, summarize strengths and weakness, and recommended alternatives that reduce credit risk. (Levine et al.1985, 45-49). Credit reports are seen in a decentralized credit analysis system. By using credit analysis report, a credit officer generally prepares credit proposals. In Bangladesh credit analyses are fully centralized. Credit analyses are usually done by the credit officer of the branch where a borrower submits loan application form and then the credit officer sends it to the committee for sanction.

3.4.3.7.2 Types of Credit Reports

Credit reports are of two types: basic reports and update reports. Basic reports are the reports that have not been analyzed before. The basic difference between basic reports and update reports is that the later describes and examines significant changes, events, and data subsequent to the time period covered in the basic report. Basic reports usually update in first and second year and revises in the third year. The length of the report determines its scope and depth, and the terms of full report, partial report, and credit memo describes the three basic lengths. Full reports are the most detailed and most complete credit analysis. Partial reports are written when there is little information, unsubstantiated data, or volatile performance. Such circumstances are likely to preclude or limit industry comparisons, trend analysis, background data, and financial analysis. Credit memos are written to answer specific questions or resolve particular problem (Levine et al.1985, 47- 49).

3.4.3.8 Credit Approval

Credit approval is the important step in credit management. Commercial banks usually follow either committee or sequential process of credit approval. Under credit committee system, the credit officer of the branch where borrowers applied makes necessary appraisal and sent it to the committee for the sanction. Credit committee examines the credit officer's proposal and makes decision whether approve it or not. On the other hand, sequential process involves an approval chain of individual credit officers with ascending levels of authority. There are debates in the academician circle about superiority of the system. Proponents of the committee system argue that it provides the maximum level of decision-making capability because it combines the experience of the committee members. The sequential process proponents claim that the committee system are suffering by lack of responsibility, specialized knowledge because credit committee customarily formed by the senior members of management and head of the lending areas. It also suffers from the lack of responsibility and accountability. In most cases committee decisions are made without allowing sufficient time to analyze applications. On the other hand, sequential process gives the every loan officer an opportunity to examine the loan application, ask pertinent questions, and make independent decisions. In committee system the responsibility of committee members cannot be assigned. Decisions are made by voice vote or raising hands. In sequential process accountability can be attributed more easily which compel them to be more responsible in decision making. Banks in Bangladesh follow the committee system for loan approval.

3.4.3.9 Credit Structuring

Credit structuring means determination of loan tenure, it pricing, repayment mode, covenants, security and others. There are various types of credit in banking. Each type of credit requires unique credit structuring. Short term credit structuring is different from term loan structuring. In case of short term loan, repayment is generally made on the expiry of its tenure. On the other hand, term loans are related with the earning power of the borrowers. Hence, in this case repayments are generally made on the installment basis. Pricing of loan also differ from loan to loan. Tenure and risk play important role in pricing the loan. In case of short term loan, inventory or working assets and for tong term loan immovable assets are generally taken as collateral. In credit structuring, credit officer have to be careful because logically un-sounds credit structuring might results the non-performing loans.

3.4.3.10 Credit Negotiation

After approval and structuring credit, a credit officer prepares an offer letter which contains terms and condition lay down in the credit structuring and sends it to the borrower for acceptance. If borrower accepts the proposal, he/she sign the letter and return it to the credit officer. Borrower may appeal to the bank to change the terms and conditions of the letter and the bank may accept it or not.

3.4.3.11 Credit Documentation

The quality of bank loan portfolio depends mostly on the quality of a bank's loan documentation. Improper or faulty documentation may result non recovery of credit. The legal relationship between the borrowers and the lender establish through documentation. Similarly, bank's legal relations with the third party also establish through guarantee agreement, hypothecation agreement, and/or subordination agreement. These legal relationships and the quality of documentation will not be tested until a loan problem occurs. If documentation fails to maintain its proper legal procedure and formalities, the bank may not only lose its collateral, but may be unable to collect the loan either from the primary debtor or from guarantor. Behrens (1990, 90-96) in his edited books explore ten most common problem areas in loan documentation which need to be carefully handled and the areas are: proper entity, names and signatures, evidences of authority and capacity, collateral descriptions, filling or recording, title and record searches, guarantee agreements, collateral valuations, security position, and casualty insurance coverage.

Brown (1986, 36-36) suggested some good ideas to improve loan documentation and these are:

(1) Hire experts from outside the bank to work on documentation, (2) Sign all notes by borrowers and at least by two credit officers, (3) Loan document should be typed by one secretary and it must be signed by him, then one can easily identify who is accountable for type, (4) Double-check the documents to ensure that it contains the entire necessary signatures, (5) Document appraisals, title searches for real estate secured loans. Include in files supporting documents such as corporate resolutions, articles of incorporation, by-laws, credit file memos, workout, and terms of loan agreement, (6) File borrowing authorization form, (7) Record real estate and commercial collateral from UCC, (8) Maintain records on insurance, (9) Maintain financial statements of borrowers and guarantors, (10) Arrange loan files in logical order for easy references-financials, insurance, collateral, correspondence, application, credit reports, and credit loan files and grouped the files as commercial, consumer, real estate and so on, (11) Attach to each file what should be a dwindling list of document exceptions in need of correction.

3.4.3.12 Credit Disbursement

After completion of documentation, bank makes disbursement. How loan will be disbursed is generally mentioned in the credit negotiation. It is customary that term loans are disburse on installment basis and short term loans are transfer to borrowers' account. Borrowers can withdraw from his/her account when deem it necessary.

3.4.3.13 Internal Audit/ management audit

It is necessary to audit the credit to verify whether credit has been made by following all the guidelines of credit set in the credit policy. Responsibility of internal audit is to identify criticized credit† and to make recommendation to take necessary action against person involved in the criticized credit.

3:4.3.14 Credit Monitoring and Review

After disbursing credit, credit officer's task is to continuously monitor and review the performance of borrowers. By regular monitoring and reviewing the performance of borrowers, a credit officer can able to detect the signs of problem loans and can take right actions to minimize loan losses.

3.4.3.14.1 Credit Monitoring

It is usual that after booking the loan, a credit officer will regularly monitor the loan and will provide advisory service to the borrowers at the time of adverse situation in order to maintain the quality of loan portfolio and to achieve target profit of the bank. Many business executives complain that credit officers virtually disappear after the loan has been made. Credit officer's query about borrower's business condition,

† Criticized credits are those credits which were sanctioned by not maintaining rules of the credit.

growth and others motivate borrowers to think that bank and borrowers are partners with the common goal of having the business prosper. By maintaining good communication with the borrowers, by providing advisory services at the time of adverse situation and by collecting information from outside such as client's competitors, suppliers, customers, and regulators and also from published reports in the daily newspapers, magazines and trade publications, a credit officer can prevent the problem loan before happening.

Credit monitoring was not a serious problem a half century ago when almost every borrower was known by face, first name, and reputation. Credit officers were intimately aware of every detail of borrowers. Today, financial institutions have mushroomed in terms of staff, multiple banking locations, loan volume, and expand service areas. This growth precludes the direct personal involvement of senior lenders in all loans. At the same time, the complex economy and diversified loan portfolio directs credit officers to pay attention more on loan review than before. The loan review function now receives much interest as credit officers strive to improve and maintain their quality of loan portfolios. Credit review performs the task of analyzing sample of credit to detect increases or decreases in credit quality and documents the causes of the credit quality changes (Nobles 2003, 28).

Basel II[†] requires that banks should evaluate their internal processes for determining credit quality. A critical area in assessing the bank's credit quality is credit review. The amount of bank capital depends on the quality of credit. Credit review has the authority to upgrade or downgrade the credit quality and it ultimately affects the amount of capital the bank is required to set aside for loan losses. In the past, credit review was basically concentrated on the risk rating of obligor but Basel II emergences an interesting technique that affects credit review in the concept of two dimensional risk rating. Under Basel II requirements, credit analysts should rate the obligor that will indicate the probability of default for the obligor as well as the portfolio risk associated with this particular loan or facility.

There is no hard and fast rule about what components should includes in review program. It varies from bank to bank even loan to loan. Ruth (1990, 429) suggested that most bank loan monitoring program should include:

(1) A periodic review of all or selected loans to ensure that they are consistent with bank loan policy, documentation requirements, profitability requirements, and so forth; (2) A grading of loan quality as measured by key indicators; and (3) External and internal audit that consider not only the quality of banks portfolio, but may also encompass the entire lending function from bank loan policy on down.

[†] It is a report of a committee named Basel Committee on Banking Supervision (BCBS) formed by Bank of International Settlement (BIS). The committee recommended three pillars for a bank and these are (1) Minimum capital requirement, (2) Supervisory review process and (3) Market discipline.

3.4.3.14.2 Scope of Review

Scope of review is a subject that is widely debated. Some banks are doing review nearly 100 percent and some as little as 40 percent. The size and condition of loan portfolio, cost and staffing considerations are some of the factors that have a bearing on which loans will be reviewed, when they will be reviewed, and who has the responsibility for reviewing them. A bank with a portfolio of loans to businesses in a troubled industry may opt to review all of its loans every three months until conditions in the industry improve. A loans meeting the highest credit quality criteria may be reviewed annually. Some banks cannot afford a frequent review of all loans, use review system based on quality of each loan. Decisions about which loans to be reviewed and how often largely depends on loan size, complexity, and the credit review policy of the institution. Credit review policy of the institution set guidelines which area of lending, what maximum amount of credit, what percentage of total credit and the circumstances of review. Some institutions determined that all loans or commitments of over certain amount or more, regardless of location, lending area, are eligible for review. Credit review policy might include large loans and collateral that could rapidly deteriorate in value for regular reviews, while loans that fall bellow a certain amount threshold might not be reviewed at all (Ruth 1990, 434-435).

3.4.3.14.3 Approaches of Loan Review

Munson et al. (1984, 3) suggested two approaches for loan review. One is passive and the other is active. In passive approach of loan review, credit reviewers review the credit files and other loan documents available to them with or without discuss with the lending officers, even the problem loans cases. The objective of this review is primarily to identify how each borrowing customer should be ranked on the basis of the accepted quality rating system. After identifying the loan as problem or potentially troublesome then action to be taken is left on either the credit officers or some other division within or outside the organization. In active approach, the reviewer reviews up to date credit file, comments, appraise value of equipment or real estate, examine receivables, payables, inventory, personal statements, more recent financial statements and so forth in addition to passive approach.

3.4.3.14.4 Goal of Loan Review Function

Prime goal of loan review is to detect problem loan to reduce loan losses. This goal can be achieved by accomplishing review program, by evaluating the quality and administration of loans after they are booked, assisting loan officers in strengthening their loans, and informing management about the condition of the loan portfolio on a regular basis by way of written and oral reports. Credit reviewer prepares a review report for the credit officer and for the top management to take necessary actions.

Proctor (1984, 22) suggested the following summary statistics and comments to be included in the report:

> (a) Soundness of loan portfolio, its liquidity and profitability; (b) Evaluation of loan officers, loan officer supervision, adherence to laws and regulations, loan policy, and loan approval procedures; (c) Note and collateral departments' operations.

3.4.3.14.5 A Loan Review Checklist

Ruth (1990, 436-440) recommended that a loan reviewer should concentrate his/her attention to the following areas: (1) Purpose: The reviewer should consider whether the borrowers use the loan stated for the purpose, (2) Loan repayment sources and term: Both repayment sources and term stated in the loan documents. The reviewer should evaluate whether loan repayment and sources are in conformity with the terms and condition stated in the loan documents, (3) Financial condition of the borrowers: Loan reviewer reviews the key elements of the financial statements of the borrowers and makes comment on whether any improvements or deterioration in the borrowers cash flow, key ratios, and so forth, (4) Documentation: By physical inspection of documents, the borrowers' compliance with the agreement's affirmative and negative covenants should be verified, (5) Collateral: Many loan losses are a direct result of collateral that was lost, improperly documented or in such poor condition that it had little liquidation value. The loan review should include physical inspection of collateral and an examination of collateral records, (6) Credit checks, (7) Profitability, and (8) Regulatory compliance.

3.4.3.14.6 Loan Review Systems

Ziegler (1980, 40) classifies loan review system as automated reporting and actual review. In automated reporting, banks use a software package which ensures the automated reporting of new and renewed loans, loans over certain limit, past due loans, loans by rate level, participation relation analysis, officers portfolio profile, loans over bank limit. Banks make these reports available periodically at various places within the organization. The intent of this review is not only to monitor individual position of credit but also to detect trends which may require in-depth analysis and possible management action. In actual system there are three tier loan review system. In three tier systems, all loans are classified as first tire, second tire, and third tire on the basis of loans volume and some other selected criteria.

3.4.3.14.7 Risk Coding/ Loan Grades

The aim of the loan monitoring is to updating the grade of the credit risk. Risk grading varies across country and even among banks in a country. There is no basic formula for grading the loan. Proctor (1984, 34-35) developed the following risk coding/grading:

Grade	Criteria
1	Entities with unquestionable financial strength, highly liquid, ability to repay obligations in the ordinary course of business. Individuals with a satisfactory financial condition with fully secured credit by cash deposits, cash value life insurance, readily marketable collateral, Govt, securities etc.
2	Entities that exhibits a strong financial condition with excellent earnings records. High quality well managed, and would be expected to meet obligation when mature, alternate financial access when needed. For individuals with substantial net worth, above average liquidity, and good income.
3	Entities with a satisfactory financial condition and earning history with indication that trend will continue. Working capital is considered adequate. Should be able to handle normal credit needs in a satisfactory manner. Individuals with a satisfactory financial condition and liquidity. Income is adequate to repay debt as schedule.
4	Entities with leveraged financial condition and marginal liquidity. Sporadic profitability. Primary sources of repayment still appears available, no alternative sources of financing, unable to servicing debt during periods of unfavorable economic condition. Individuals having relative weak financial condition with recent history of slow pay; however primary source of repayment is identified and appears adequate to service the debt as schedule.
5	Entities that arte highly leveraged and experiencing adverse trends in earnings and qualitative working capital. Would appear to be having some difficulty in servicing debt as schedule. If adverse trends continue, credit would warrant reclassification under schedule 1. Individuals with a highly leveraged financial condition and experiencing some difficulty in paying debt as schedule from primary source previously identified. Availability of secondary sources of repayment is questionable. If situation does not improve, reclassification under schedule 1 may be warranted. Borrowers' statements indicate an ability to repay, but debt has become stale because appte loan supervision/administrative action is lacking. In some cases, better financial information is needed to clearly established borrowers's ability to repay.
6	Borrowers' statements indicate possible inability to repay debt as structured in the normal course of business. In some situation, debt restructured may improve ability to repay. Prospects are reasonably good that borrowers' financial condition will improve. Collateral or guarantee endorsement appears adequate but reliance on these resources for repayment does not appear necessary at present time.
7	Borrowers' statements indicate possible inability to repay in the normal course of business, even if restructured. Prospects are not good that borrowers' financial condition will improve. Therefore, liquidation of collateral or calling on guarantor/endorser appears necessary to collect in full.
8	Borrowers' statements indicate inability to repay; questionable collateral or guarantee/endorsement. In order to collect loan, strong collection effort, foreclosure, or legal action probable. Some loss potential-up to 10% of principal.
9	10% to 50% loss potential.
10	Possible loss on account of over 50%.

3.4.3.14.8 Key Ingredients in the Loan Review System

A good loan policy is a guide line for the credit officers. A good credit policy, a good administrative system, accurate information and, of course, a savvy[††] senior management are key for success in loan review. Reviews are made on the basis of information, and the success of review greatly depends on the accuracy of information. To ensure its accuracy, information must be tested from an independent, unbiased perspective. For making loan review accurate, a separate loan review department headed by one man with commercial lending experience and common sense is needed.

3.4.3.14.9 Principles of Effective Loan Review

Wood (2003) suggested the following 10(ten) elements for an effective loan review operation:

1) Avoid the gotcha[†] approach in words and actions,
2) Communicate in timely way. Do not spring surprises, touch base with the involved parties, and get the full story,
3) Give credit where credit is due; acknowledge when the line initiates action.
4) Use the team approach. Ask "How can we fix this?" versus "How did this get broken?"
5) Avoid sharp and prickly adjectives,
6) Keep materiality in mind: "Nice to have" versus "need to have"; and underwriting oversight on an isolated basis should not be a cause for a public humiliation; an issue on a $10,000 loan probably is not an important issue on a $10 million loan,
7) Avoid jumping to conclusions, especially when you have not discussed the issue with all parties involved,
8) Recognize signals you may be giving; don't start out with "we are right and you are wrong" body language and verbal cues. After all, you may be wrong. Listen at least as much as you talk,
9) Make sure your constituents know that you recognize risk grading is as much art as it may be science and that you are equally open to upgrading as downgrading, and
10) If it does not make sense, it is probably wrong.

[††] Savvy: Savvy means have a practical knowledge and understanding

[†] Gotcha: Gotcha means yes I understand.

3.4.3.14.11 Which System is best?

A loan review system is the best for a bank is dependent on the risk tolerance and credit culture of the bank. System which is best suited in one bank may not be completely applicable to another bank. In some respect it also takes into consideration the overall financial condition of the bank, its size, and its geographic footprint, the mix of the bank's portfolio among consumer loans, small-business loans. Large commercial loans may influence the direction and scope of a loan review process.

3.4.3.15 Problem loans Identification and Resolution

Loan losses can be minimized by early detection of problem and its efficient handling. The next sub sections will illustrate the definition of problem loans, causes of problem loans, early detection of problem loans and techniques of handling problem loans.

3.4.3.15.1 Definition of Problem Loan

Behrens (1998) defines problem loan as:

> A problem loan can also be defined as one in which there is a major breakdown in the repayment agreement resulting in an undue delay in collection, or one in which it appears legal action may required to effect collection.

Banking Company (Revised) Act 2001 gave definition of problem loan in this way:

> (1) In case of continuous loan or call loan: On the expiry of due date, (2) Term loan (Maturity less than 5 Year): On the expiry of installment due date, (3) Term loan (Maturity more than 5 years): On the expiry of 6 month of the installment date, (4) Agriculture and small loan: On the expiry of 6 month of the due date, and (5) Any overdue loan should be treated as problem loans. (BRPD Circular No.10 May 14, 2001)

3.4.3.15.2 Early Sign of Problem loans

The most important function of loan review department is the early identification of loan problems because the earlier the bank begins to deal with the problem, the greater are its alternatives for achieving a solution as well as lesser chance of losses. Literature has identified the followings as the sign of problem loans:

(1) Lack of profitability, (2) High/rising leverage, (3) Low/decreasing liquidity, (4) Low collection of accounts receivables, (5) Slow turn of inventory, (6) Weak/decreasing equity, (7) Increase in accounts payable, (8) Loans to officers and stockholders, (9) Fraudulent of financial information, (10) Delinquency or other

default, (11) Failure to provide information, (12) Family and marital problems, (13) Rapid business expansion, (14) Changes in management, (15) Change in accountants, (16) Declining sales, (17) Change in product mix, (18) Loss of key employees, (19) Collateral problems, (20) Large/Rising insider transactions, (21) Changes in accounting methods or auditors, (22) Re-negotiations of loan covenants, (23) Cancellation of insurance, (24) Investment in non-related venture, (25) Judgments and tax liens, (26) Concentrations, and (27) Changes in customer mix.

3.4.3.15.3 Causes of Problem Loans

Loans may turn in to problem loans if lenders fail to pay attention on the followings areas:

(1) Not paying attention to written loan policy, (2) Having no real initiative to determine the purpose of the loan, (3) Doing improper credit work, (4) Not understanding the business being financed, (5) Failing to address repayment realistically, (6) Relying too heavily on collateral, (7) Refusing to admit a problem, (8) Being lax with borrowers who are past due, (9) Procrastinating, and (10) Failure in to the renewal/reduction syndrome.

3.4.3.15.4 Handling Problem loans/ Loan work-out

The following techniques are usually used for handling problem loans:

(1) Providing advisory/counseling services, (2) Deputing representatives in the management position of borrowers' organizations, (3) Rescheduling of credit, and (4) Waiver of interest.

3.4.3.15.5 Alternatives to Collect Problem Loans

A loan default occurs when the debtor failed to make repayment as agreement or violate some other provisions of loan documents. When a default occurs, the lender usually gives the debtor an opportunity to repay the loan. If borrower fails to repay the loan as arrangement, bank usually takes legal actions to recover the loan. Usually loan recovery drives can be: (1) Compromise settlement, (2) Creditor's arrangement, (3) Involuntary bankruptcy, (4) No action, (5) Voluntary liquidation, (6) Legal action for repossession and sale of collateral, (7) Legal action against borrowers, (8) Legal action against guarantor, (9) Sale of loan to independent organization (Behrens 1998, 253-258), and (10) Appointment of an organization for recovery of default loan.

3.4.3.16 Recovery of Credit

Recover of credit is the last step of credit management process. It is expected that loan will be repaid after its tenure. In most of the cases this practice is hold good. But a problem arises when loan becomes a problem loan. Banks are using many alternatives for recovery of problem loans. Some banks are using moral persuasion to recover problem credit, some banks sale the loan to other party, some appoint third party to recover loan. If all these techniques come in to failure to recover credit then lenders have no alternative rather taking legal action against borrower to recover loan. In the past, traditional laws for recovery of bad loans in Bangladesh were inadequate and cumbersome. Long times were needed to settle a dispute. The situation has changed with the introduction of Artha Rin Adalat Act 2003[†]. In the past, independent organization was not found in Bangladesh to take the responsibility to recover the bad loans. In the recent past, some organizations have come forward and shown their keen interest to assume the responsibility of recovery the bad loans. Securitization[†] and sales of loans are widely used in the advanced economy to handle bad loans.

3.5 Conclusion

Like planning in management, credit management starts with strategic plan for target markets and ends with recovery of loan. Existence of huge non performing loans around the globe, especially in the developing countries emerge the vigorous conceptual development on credit management. By recognizing the importance of credit management, plenty of researches have been undertaken around the world to make credit management efficient and to develop techniques of handling nonperforming loans.

[†] It is an Act for the recovery of default loans in Bangladesh in addition to the existing laws. It was enacted from March 10, 2003.

[†] Securitization is one of the techniques now using in the advanced economy that helps banks to avoid the risk of NPLs (Greenspan, 2000)

CHAPTER 4

CREDIT MANAGEMENT IN BANGLADESH

4.1 Overview (Evolution of Credit Management in Bangladesh)

Industrial financing in Bangladesh starts in the early eighties of the last century without developing the credit management system. It had faced serious problems due to dearth of competent professionals to work with credit management system. At that time, distorted incentive system, directed lending, policy lending, lack of competent personality, and government influences were the characteristics of credit management. Credit management system is different from country to country and even among banks to banks of a country. U.S.A. follows disperse[†] credit management system and Japan follows the integrated[†] credit management system. These two systems are running successfully in different countries. Banks in Bangladesh follow integrated credit management system. But existences of huge non-performing loans validate the failure of integrated credit management system. There may be debate why integrated credit management system failed in Bangladesh? Actually, what steps follow in credit management processes by banks Bangladesh? Which credit management steps are weak and which are strong? How these steps can be made efficient? How can the system be made successful? Government anxious about the existence of huge non performing loans and to minimize the loan losses, government took vigorous initiative, to reform the financial sector and to make credit management system efficient. The following subsections illustrate the scenario of banking sector in Bangladesh.

4.2 Banking System Structure in Bangladesh

Four types of traditional[†] banks are operating in Bangladesh. Table-4.1 shows the number of banks, it branches, total assets, total deposit in the year 2003 and 2004.

[†] Disperse credit management system is a system where all credit management activities are decentralized and in some cases, banks rely on the assessment of the rating agencies.

[†] Integrated credit management system is a system where all credit management activities are centralized and perform by the bank itself.

[†] Traditional banks mean the banks which are providing both short and long term financing.

Table#4.1
Shows the Banking Structure in Bangladesh in the year 2003 and 2004

(Tk. in Billion)

Banks	Year 2003						Year 2004					
	Number of Banks	Number of Branches	Total Assets	% of industry assets	Total Deposit	% of Deposit	Number of banks	Number of Branches	Total Assets	% of Industry Assets	Total Deposit	% of Deposit
NCB	04	3397	631.6	41.7	525.0	46.0	04	3388	683.7	39.6	567.5	42.8
PCB	30	1510	617.8	40.8	468.2	41.1	30	1550	749.3	43.5	588.0	44.3
FCB	10	32	110.1	7.3	84.5	7.4	10	37	124.6	7.2	95.5	7.2
DFI	05	1314	154.5	10.2	62.6	5.5	05	1328	167.9	9.7	75.1	5.7
Total	49	6253	1514.0	100.0	1140.3	100.0	49	6303	1725.5	100.0	1326.1	100.0

Source: BB Annual Report 2004-05

Table 4.1 shows that number of banks has not increased over the year but number of branches is increase from 6253 to 6303 in the year 2004. Table also shows that numbers of branches of NCBs has decreased and numbers of branches of PCBs, FCBs and DFIs have increased in 2004. Share of industry assets of NCBs shows decreasing trend and it increasing in case of PCBs.

4.3 Credit of Banks in Bangladesh

The main business of a bank is credit. Bank lends private sector enterprises as well as public sector enterprises. The following table shows sector wise banks credit and its growth from 2000 to 2005.

Table#4.2
Shows Sector wise Credit and its Growth from 2000 to 2005

(Tk. In Billion)

	Y	E	A		R	S
	2000	2001	2002	2003	2004	2005
Total Domestic Credit	770.2*	901.6	1013.9	1097.2	1255.5	1475.6
Government Sector	212.9	253.8	278.4	268.2	309.2	368.2
Private Sector	557.3	647.8	735.5	828.9	946.3	1107.4
Growth In Percent						
Domestic Credit	------	17.2	12.4	8.2	14.2	17.5
Government Sector	--------	19.2	9.7	-3.7	15.3	19.1
Private Sector	-------	16.2	13.5	12.7	14.2	17.0

Source: BB Annual Report-2004-05

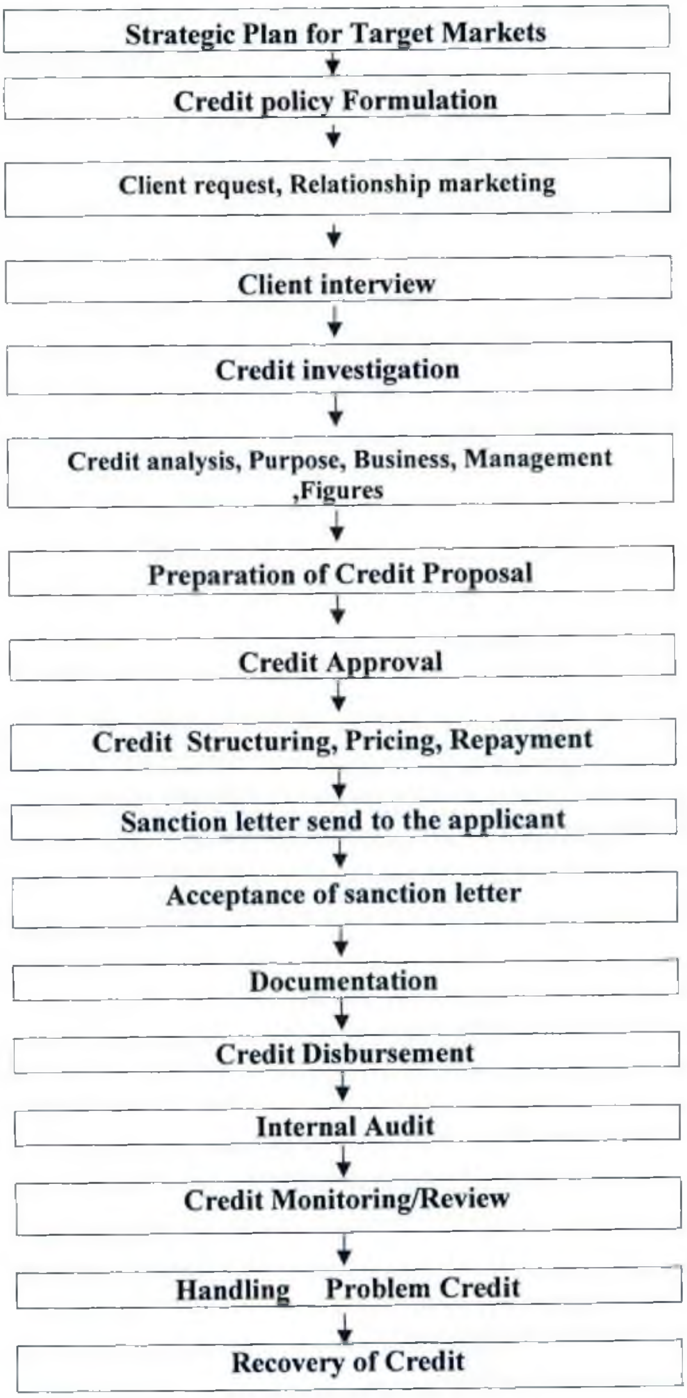
Note: * All figures are at the end og June, 30.

It is evident from table 4.2 that growth of credit in both private and public sector decreased in 2002 and in 2003 and after that it increased. In private sector, the growth variations are tiny over the years (from 2001 to 2005), but in public sector growth variations were significant.

4.4 Credit Management flow Chart of Banks in Bangladesh

There is no standard flowchart for credit management. Every bank follows its own process. But some of the steps are common to all. By adapting all the steps of banks in Bangladesh, the following flow chart of credit management of banks in Bangladesh has been developed.

Chart # 4.1
Flow Chart of Credit Management



4.5 Steps of Credit Management in Bangladesh and Role of Bangladesh Bank (BB) in Improving Credit Quality (1989-2004)

Banks in Bangladesh have no model credit management steps to be followed. Every bank has followed different steps in their credit management. By recognizing all the steps of credit management followed by banks in Bangladesh, it can be arranged in the following way. The existing credit management steps of banks in Bangladeshis are described below.

4.5.1 Strategic Plan for Target Markets

Every bank should have a strategy for target markets where they are interested to invest their fund. In formulating strategy, one should have adequate authentic information about economy and the prospect of each sector. By analyzing this information, bank management will determine which sectors would be profitable for them and how much they would like to invest in those sectors. Unfortunately, in Bangladesh, banks are facing the problem of scarcity of authentic information. Most of the banks also fail to formulate any strategic plan to target markets with some exception of foreign commercial banks.

4.5.2 Credit Policy

Credit policy is the guidelines of credit. It includes the preferred area of lending, prohibited lending, delegation of power (authority), mission and vision statement, pricing, documentation etc. In short, it is like an anchor on the basis of which the whole credit management process will swing. Before December 31, 2003 banks in Bangladesh do not have any obligation to have a written credit policy and most of the commercial banks do not have any written credit policy. At that time, credit was guided by circular of individual bank and Bangladesh Bank. In 2003, Bangladesh Bank via its circular (BRPD Circular No.17 October 07, 2003) made it mandatory that all commercial banks should have a written credit policy within December 31, 2003. Bangladesh Bank also provided a standard format of a credit policy for all schedule banks.

4.5.3 Credit initiation/ Client request/ Relationship Marketing

Relationship marketing[†] is very new concept in the banking sector of Bangladesh. Most traditional banks start their lending activities after receiving client request. Some

[†] Relationship marketing means credit officer himself/herself approaches borrowers for taking loans from his/her bank

foreign commercial banks and last generation commercial banks are now introducing relationship marketing and most of other banks are now thinking to introduce relationship marketing.

4.5.4 Credit Investigation

Credit investigation means investigation and collection of information about borrowers their businesses, business prospects and economy to assess the creditworthiness of borrowers. Every bank should have a credit investigation policy. Credit investigation policy contains the guidelines about what aspects a credit officer should investigate, from where information should be collected to asses the creditworthiness of borrowers. Banks in Bangladesh do not have any written credit investigation policy. Traditionally, they investigate some aspects which management set aside for investigation.

4.5.5 Credit Analysis

In past, financial institutions (commercial banks) in Bangladesh do not have any written credit analysis policy. Every bank had individual credit manual and credit analysis was done on the basis of their credit manual. But in 1993, Bangladesh Bank as suggested by Financial Sector Reform Project (FSRP) developed a credit risk analysis manual named Lending Risk Analysis (LRA) and made it mandatory for all nationalized commercial banks via its circular (BCD- Circular NO.1317-07-1994) to use this manual from 30-09-1994 for all lending exposures undertaken by a bank in excess of Tk.1.00 crore.

4.5.6 Credit Proposal

In Bangladesh, the credit officer of a branch prepares credit proposal and branch manager can sanction the loan if it is fall within his/her limit. If loan amount is beyond the branch manager limit then credit officer sends it to the appropriate authority for approval. Now, some small banks have introduced centralized credit approval system where every loan proposal should be sent to the head office for approval. Some banks are following the system where both branch credit officer and head office credit officer individually prepares credit proposal.

4.5.7 Credit Pricing

Credit pricing means determination of interest rate. It includes cost of fund† plus profit margin. Central bank of a country as a guardian of all schedule banks time to time changes country's interest rate policy not exception in Bangladesh. Central bank, as a credit control tool, changes interest rate from time to time. In order to maintain macroeconomic stability and to faster economic development it is necessary to recycling loans. But huge non-performing loans in baking sector were identified as the main obstacles for the development of Bangladesh. Interest rate in Bangladesh is one of the highest in the world and also in the SAARC country. Academicians, policy makers and businessmen opined that higher interest rate in most cases are responsible for loan default and defaulted loans result high cost of funds for genuine businessmen. Sundararajan (1992) also opined that losses due to bad loans have constrained the decisions on interest rate policy. To overcome this problem, Bangladesh Bank, as an executive agency to implement monetary policy of the government and to attain economic stability and development time to time changed country's interest rate policy. Following subsections present the interest rate policy of Bangladesh from 1989 to 2005.

4.5.7.1 Interest Rate Policy of Bangladesh from 1989 to 2005

Cost of funds largely depends on the interest rate. Low cost of funds accelerates the flow of credit and it results economic development. On the other hand high cost of credit helps to reduce inflation in the economy. High cost of fund refrain borrowers from expanding their business and it hinders the pace of pace development. By analyzing economic condition Bangladesh Bank time to time has changed it interest rate policy. Changing interest rates from 1989 to 2004 are present in the table below:

Table#4.3

Shows the sector-wise interest rates of Banks in Bangladesh from 1989 to 2004

Date	Commercial and Agriculture Loan	Export Goods Loan	Small Scale Industry Loan
16.11.1989	18%	8%-11% with 2.6% Govt. subsidy	
12.06.1991	13%-18.5%	8%-12% with 1% Govt. subsidy	
1992	11%-15%	7.5%-11% with 1% Govt. subsidy	9%-13% with 3.5% Govt. subsidy
25.04.1994	10%-14%	8%-10%	9%-12%
10.1.2004		7%	

Source: Circulars of BB.

† Cost of fund includes deposit interest rate plus administrative cost

Table 4.3 shows that to introduce flexibility in the lending rates, BB via its circular (BCD Circular No.33, Nov.16, 1989) introduced interest rate policy. In 1989 interest rate policy, maximum interest rate was 18% in commercial and agriculture loans and minimum was 8%-11% on jute and jute export and other export items with 2.6% government subsidy. In this interest rate policy, BB also permitted schedule banks to set their own rates within the limit set by the BB. On June 12, 1991, BB changed the interest rates and government subsidy rates. Under new interest rates, maximum interest rate on commercial loan and agriculture loan was set at 13.5% – 18.5% and the lowest on export goods 8%-12% with 1% government subsidy. BB also permitted schedule banks to set their own interest rates on the basis of risk and customer relation provided that difference of interest rates among borrowers should not exceed 2% (BCD Circular No.18, June 12, 1991).

In 1992, BB again changed interest rates on agriculture, export goods and small and cottage industry loans. At that time interest rate on agriculture, export goods and small and cottage industry loans was set at 11%-15%, 7.5-11% with 1% government subsidy, and 9-13% with 3.5% subsidy (BCD Circular NO.07, March 09, 1992). On April 25, 1994 BB changed its existing interest rates on agriculture, export and cottage industry loans and the new rates were on agriculture 10-14%, on export 8-10%, and small and cottage industry loans 9%-12% (BCD Circular No.07, April 25, 1994). By circular No.21 (November 01, 2001) BB again permitted commercial banks that they can differentiate the rate of interest among borrowers up-to 3% (2 (b)(1) of BCD circular no.18 1991) on the basis of risk. In 2004, BB determined the new interest rate on all export goods at 7% (BRPD Circular No. 01, January10, 2004).

4.5.7.2 Weighted Average Interest Rates of Schedule Banks in Bangladesh

Bank makes various types of credit. Each credit has its individual characteristics. Interest rates vary among loan to loan and also from bank to bank. Weighted average interest rates are calculating by incorporating all interest rates and volume of loans. The next table shows the weighted average interest rates of schedule banks in Bangladesh.

Table#4.4

Shows weighted average deposit interest rate, lending interest rate and spread of all schedule banks in Bangladesh from 2001 to 2005

Sector	Y E A R S				
	2001	2002	2003	2004	2005
Deposit Rate	7.00*	6.7	6.3	5.7	5.6
Lending Rate	13.8	13.2	12.8	11.0	10.9
Spread	6.8	6.5	6.5	5.3	5.3

Source: Bangladesh bank Annual Report 2004-2005

Note: * All figures are on June, 30.

Table 4.4 exhibits weighted average deposit interest rate, lending interest rate and spread of all schedule banks in Bangladesh from 2001 to 2005. It is seen in the table that weighted average deposit interest rate in 2001 was 7% and in 2005 it was 5.6%. Over the years trend of deposit interest rate was decreasing. Lending interest rate on 2001 was 13.8% and on 2005 it was 10.9%. Lending interest rate also was decreasing. Spread was 6.8 in the year 2001 and it was 5.3 in 2005.

4.5.8 Credit Negotiation

After approval and structuring the credit, a credit officer prepares an offer letter by describing terms and conditions set aside in the credit structuring and sends it to the borrowers for acceptance. If borrowers accept the proposal, he/she signs the letter and returns it to the credit officer. Borrowers may appeal to bank for amending terms and conditions of the letter. Bank may accept the appeal or not. Most of the banks in Bangladesh follow this step.

4.5.9 Credit Documentation

The quality of bank loan portfolio depends mostly on the quality of a bank's loan documentation. Improper or faulty documentation results non recovery of loan. The legal relationship between borrowers and lenders is established through documentation. Similarly, bank legal relation with the third party is established through guarantee agreement, hypothecation agreement, and/or subordination agreement. These legal relationships and the quality of documentation will not be tested until a loan problem occurs. If documentation fails to maintain its proper legal procedure and formalities, the bank may not only lose its collateral, but may be unable to collect the loan either from the primary debtor or from guarantor. Improper, faulty, and delay documentation is common in banks in Bangladesh.

4.5.10 Credit Disbursement

It is a practice that credit will be disbursed after documentation. But in the most cases in Bangladesh, credit disburses before documentation.

4.5.11 Internal Audit

It is necessary to conduct independent audit (i.e.compliance audit) of every credit to verify whether credit has been made by maintaining all the guidelines of credit set by bank. This task is done by internal audit department. The responsibility of internal audit department is to identify the criticized credit and to make recommendation to take necessary action against persons involved in criticized credits. Every bank in Bangladesh has internal audit department but existence of huge amount of non performing loans shows that internal audit department is not active or fail to perform its work independently.

4.5.12 Credit Monitoring and Review

It is customary that after booking the loan, credit officer will regular monitor the loan and will provide advisory service to borrowers at the time of their adverse situation in order to maintain the quality of loan portfolio and profitability of the bank. Many business executives complain that credit officers virtually disappear after loans are made. Usually, the credit officer makes inquiry about borrower business condition, growth and the others to motivate the borrower to think that bank and borrower are partners with the common goal of having the business prosper. By maintaining good communication with the borrower's, by providing advisory services at the time of adverse situations and by collecting information from outside such as from clients competitors, suppliers, customers, regulators and also from published reports in daily newspaper, magazines and trade publications, a credit officer can prevent the problem loan before it happening. In Bangladesh, no banks have written credit monitoring policy i.e. which credit would be reviewed, how frequent it would be reviewed and what matter would be looked in reviewing loans. Bangladesh Bank time to time via its circulars gave set rules for classifying loans and it was followed by banks in Bangladesh. Individual banks had no set rules for classifying loans. In 2005, Bangladesh Bank developed a manual named CRGM for grading classifying loans. BB time to time changes loan classification rules. The loan classification rules of BB from 1989 to 2005 are presented in the following subsections.

4.5.12.1 Loan Classification and Provisioning Rules from 1989-2005

In order to strengthen credit discipline and to improve the recovery position of credit of banks, Bangladesh Bank time to time changes loan classification rules through its circular. These loan classification rules are presented in the following tables.

4.5.12.1.1 Loan Classification Rules in 1989: In 1989, BB via its circular (BCD Circular No.34 Nov.16, 1989) set the following rules for classifying loans, for suspending overdue interest and for making provisions against potential loan losses. These rules are present ed in the table below.

Table#4.5
Shows the Loan Classification Rules of BB in 1989

Basis of loan classification	Substandard	Doubtful	Bad and Loss
1.Qualitative Criteria: Adverse financial condition, Poor financial performance, insufficient security.	If an advance or any portion of an advance or interest thereon remains overdue for one year or more but less then three years.	Any portion of advance or interest thereon remains overdue for three years or more but less then five years	1) Overdue for five years or more 2) Doubtful and has remained doubtful for two years or more.
Overdue Criteria: Overdue six month for private sector and fifteen months for public sector enterprises.	Limit stands overdrawn by more than 50% for a period of 45 continuous days preceding the reference date for the classification	Substandard for two years or more.	1) Doubtful and has remained doubtful for two years or more 2) Legal action initiated. 3)Qualitative criteria
Others Criteria	1) Renew or reschedule at least three times. 2) Payments were not made within the required period. 3) Qualitative criteria	a) Legal action has been initiated b)Qualitative criteria	Not applicable

Source: BCD Circular No.34 Nov.16, 1989, BB.

4.5.12.1.2 Provision against Classified Loans: Bangladesh Bank has directed all banks to make provision on their classified loans in the following rates: (1) On substandard loans 10% (2) On doubtful loan 50% and (3) On bad and loss 100% (Source: BCD Circular No.34 Nov.16, 1989, BB)

4.5.12.1.3 Loan Classification Rules in 1998: On December 06, 1998 BB via its circular

(BCD Circular No. 34/1989 and 20/1994, and BPRD Circular No.16.December 06, 1998) informed all schedule banks that in order to strengthen credit discipline, to make simple the loan classification procedure and to develop the loan classification and provisioning principle to international level, BB has been decided to revise its earlier loan classification standard. The new loan classification standards are exhibit in the following table.

Table# 4.6
Shows the Loan Classification Rules in 1998

Types of loan	Substandard	Doubtful	Bad and loss
Continuous loans	Non payment/ Renewal within 3 moths or 6 months after expiry date	Classified as substandard for 6 to 12 months	Classified as doubtful for 12 months or more
Demand loans	Non payment within 3 months or 6 months after expiry date	Classified as substandard for 6 to 12 months.	Classified as doubtful for 12 months or more
Fixed term loans (Up-to five years)	Installment default for more than 6 months.	Classified as substandard more than 12 months	Classified as doubtful more than 18 months
Fixed term loans (more than five years)	Installment default more than 12 months	Classified as substandard more than 18 months	Classified as doubtful more than 24 months
Short- term Agriculture and Micro-Credit	Overdue more than 12 months	Overdue more than 36 months	Overdue more than 60 months

Source: BCD Circular No. 34/1989 and 20/1994, and BPRD Circular No.16.December 06, 1998, BB

4.5.12.1.4 Provision against Classified Loans: Bangladesh Bank has directed all banks to maintain provision in the following rates on their all loans: (1) 1% on non-classified loans, (2) 20% on substandard loans, (3) 50% on doubtful loans and (3) 100% on bad and loss loans.

4.5.12.1.5 Classification Rules in 2001: Bangladesh Bank again revised its loan classification rules and loan provision rates on 2001 via its BRPD Circular No. 09 on May 14, 2001. Revised loan classification rules are present in the table below.

Table# 4.7
Shows the Loan Classification Rules of 2001

Types of Loan	Classified	Substandard	Doubtful	Bad and Loss
Continuous Loan	On the expiry of due date or not renewal	Classified more than 6 months but not more than 9 months	Classified more than 9 months but not over12 months	Classified for 12 months and more
Demand Loan	On the expiry of due date or not renewal.	Classified more than 6 months but less than 9 months	Classified more than 9 months but less than12 months	Classified more than 12 months and more

Source: BRPD Circular No. 09 on May 14, 2001, BB.

Bangladesh Bank on March 03, 2005 issued a circular by amending earlier circular where they defined that,

> 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' and interest accrued on such loan will be credited to interest suspense account instead of crediting the same to income account and it should be informed to CIB of BB.

4.5.12.2 Loan Defaulter

According to the Banking Company Act-2001 Section 23(Ga /Ga) a loan defaulter means any person or organization to whom or his or her interested organization, any kind of advance, loan or a part or interest there on overdue (as define by Bangladesh Bank) for more than six months.

Banking Company (Revised) Act 2001 defines the overdue loan as:

1) In case of continuous loan or called loan: On the expiry of due date.
2) Term loan (Maturity less than 5 Years): On the expiry of installment due date.
3) Term loan (Maturity more than 5 years): On the expiry of 6 month of the installment date.
4) Agriculture and small loans: On the expiry of 6 month of the due date (*Source:* BRPD Circular No.10 May 14, 2001).

4.5.13 Handling Problem Loans

A loan default occurs when borrower failed to make repayment as agreement or violates some other conditions of loan agreement. When borrower defaults, the lender usually gives borrower an opportunity to repay the defaulted loan. Bank usually uses the following techniques to handle the problem loan when borrower faces trouble to service the loan:

(1) Provide advisory/counseling services; (2) Deputing representatives in the management position of borrower organization; (3) Rescheduling of loan; (4) Waiver of interest; (5) Compromise settlement; (6) Legal action against borrower; (7) Sale of loan to independent organization; and (8) Appointment of an organization to recover the problem loan. In Bangladesh, rescheduling of credit, waiver of interest, legal action against borrower are most common techniques for handing problem loan.

4.5.13.1 Loan Rescheduling Policy

Bangladesh Bank as the central bank, time to time takes various policies for loan rescheduling, to maintain the credit quality and to ensure smooth recovery of it. On December11, 1995 BB via its circular (BCD circular No. 18 BB) formulated a policy guideline of loan rescheduling. This rescheduling policy contained the following rules:

(1) Application should have been properly considered and approved by proper authority. (2) Borrower has to pay a minimum 10% of overdue amount with application of rescheduling.

On January 13 2003, BB changed the previous rescheduling rule and issued a new guideline via its circular (BRPD Circular No.01). The new guidelines were as follows:

a) Bank should audit the causes of loan default. During audit, if it is deemed that diversion of fund and habitual are the causes of default then application should not be considered,
b) Evaluate the repayment ability of borrower by examining the loans of borrower to other banks,
c) Bank should analyze the cash flow statement, audited balance sheet, income statement, and other financial statements in order to judge the repayment capacity of borrower,
d) Bank officer should inspect the borrower's business in order to ensure that borrower would be able to repay the loan after rescheduling and
e) The effect of rescheduling on bank income and implications thereof should be submitted to board of directors.

Bangladesh Bank also set some rules of rescheduling. These rules are presented in the table below:

Table#4.8
Shows the Rescheduling Rules of Bangladesh Bank

Types of loan	Rescheduling	Rules
For term Loan	First time Rescheduling	Borrower has to pay 15% of overdue loan or 10% of total outstanding whichever is lower
For term Loan	Second time rescheduling	30% of overdue loan or 20% of total outstanding whichever is lower
For term Loan	More than two times	50% of overdue loan or 30% of total outstanding whichever is lower
For Demand or continuous Loan	Up to Tk.1 crore	15% of loan amount
Other Loans	1 core to 5 crores	10 % of loan amount but not less than Tk.15 lacs
Other Loans	More than 5 crores	5% of loan amount but not less than Tk.50 lacs

Source: BRPD Circular No.01, January 13, 2003

4.5.14 Loan against Shares and Debentures

Bank can makes advance against shares and debentures. Before 1995, there were no set rules how much a bank can make advance against securities. BB in 1995, set rule that bank can make advance up to maximum 40% of the market value of the shares and debentures listed in the stock exchanges (BRPD circular No.02, date, 06.02.1995) provided that advance against securities should not exceed Tk.10.00 lakhs (BRPD Circular, No.11).

4.5.15 Credit Information Bureau (CIB)

It is necessary to know the credit status of a loan applicant for credit analysis. But in Bangladesh, before 1993, there was no established bureau to provide information about credit status of borrowers. To meet this deficiency, BB established Credit Information Bureau (CIB) and made mandatory for all schedule banks to collect information about borrower's credit status before sanctioning, renewals and rescheduling of loans from 1st January 1993. On 17-06-1995 BB via its circular (BCD circular No.-07), again directed all schedule banks to collect information about borrowers before sanctioning new loan, renewal, and rescheduling of loan up to

Tk.10.00 lakhs or more. On 29-06-1995, BB extended this ceiling to Tk.50.00 lakhs (BCD circular No.-09). On-26-10-2000, BB made it mandatory for all schedule banks to collect information from CIB for sanctioning new loans, renewals, and rescheduling, issuing bank guarantee and opening letter of credit (LC) via its circular BRPD Circular No.13.

4.5.16 Guidelines on Managing Core Risks in Banking

Deregulation along with globalization of business warrants better risk management practices around the world. Failure to adequate manage of risks exposes banks not only to business losses but also to threat of not to survive in the business. To look into the practices of risk management in home and abroad and to produce a best model to deal with risk management, Bangladesh Bank formed a "Focus Group" consisting of members from NCBs, PCBs, and FCBs. Member from Bangladesh Bank acted as team coordinator. This focus group identified five core risks in banking business and these are:

1) Credit risks;
2) Assets and liability/balance sheet risks;
3) Foreign exchange risks;
4) Internal control and compliance risks; and
5) Money laundering risks.

Bangladesh Bank by its circular (BRPD Circular No.17 October 07, 2003) advised all schedule banks in Bangladesh to put in place an effective risk management system by December 2003. Focus group also supplied a CD-ROM to all banks which contain possible guidelines to handle each risk separately.

4.5.17 Credit Risk Grading Manual

The LRA was faced various problems and it made no attempts to introduce a Risk Grading System (RGS) for unclassified loans. After realizing it, in January 2004, BIBM was instructed by Governor of Bangladesh Bank to produce a Credit Risk Grading Manual (CRGM) based on the Core Risk Management Guidelines (CRMG). BIBM constituted a Focus Group for this purpose. The Focus Group completed its task and submitted it to Bangladesh Bank in September 2004. This was reviewed by an Industry Review Group (IRG) consists of the representatives from NCBs, PCBs, and FCBs specifically involved in the credit approval and corporate business functions. The IRG met a number of times in august and September 2005 and gave their recommendations. These were discussed and suitable amendments were made in the guidelines. The CRGM is a mandatory replacement of the LRA and it will be applicable for all exposures (irrespective of amount) other than those covered under Consumer and Small Enterprises Financing under Prudential Guidelines and also under the Short Term Agriculture and Micro Credit (Source: Credit Risk Grading Manual, November 2005).

4.5.18 Legal Environment and Non-Performing Loans

Legal action against borrower is the last weapon bank uses to recover dues. But in most cases, legal environment in Bangladesh becomes a barrier instead of being helpful to recover bank dues. The commercial law dealing with loan recovery overwhelmingly favors the delinquent customers. The legal system makes its difficult for the NCBs to repossess and sell many securities (LRA Manual, 1-2). The borrowers are confident that they would not be touched for at least 10-15 years due to cumbersome, inefficient and time consuming procedural law, over burdened judges and most of all, ingenuity of their lawyers in adopting dilatory tactics. Bangladeshi legal system provides an elaborate system of appeals, reference, reviews and revisions, which causes abnormal delays in the legal process. Present scenarios of legal environment will discuss in the following subsections:

4.5.18.1 Present Status of Law Relating to Recovery of Loans

Bank lends money to borrowers in the hope that it will be repaid at the end of its tenure. If borrowers fail to repay the loans as agreement, bank takes recovery drive. When bank recovery drives fail, bank file case against borrowers as the last weapon. At present, bank can take legal actions under the following laws: (1) Filing certificate cases under the Public Demands Recovery Act, 1913; (2) Filing bankruptcy cases under the Bankruptcy Act, 1997; (3) Filing money suit/title suit under the Artha Rin Adalat 2003; and (4) Other legal actions.

4.5.18:2 Performance of Artha Rin Adalat

After failing to recover the loan from borrowers, banks have the legal option to file case in the Artha Rin Adalat. Table given below shows the performance of Artha Rin Adalat as on June 2004.

Table#4.9
Shows the Performance of Artha Rin Adalat as on June 2004

(Tk.in crore)

Type of Banks	Suits Filed		Suits Settled (Cumulative)			Suits under trail		
	No. of suits	Amount claimed	No. of suits	Amount claimed	Amount recovered	No. of suits	Amounts Claimed	Amounts recovered
NCBs	52748	1057268.8	21721	97207.3	82995.6	32043	965191.5	47055.0
DFIs	21245	236516.3	10436	62791.1	13038.3	10809	173725.3	2711.0
PCBs	14458	584183.2	6493	129541.9	54509.0	7965	454419.8	67180.4
FCBs	296	23865.7	206	8668.6	5845.7	90	15197.1	1210.2
Total	**89747**	**1901834.1**	**38856**	**298208.8**	**156388.6**	**50907**	**1608533.6**	**118156.7**

Source: Bangladesh Economic Review 2004

Table 4.8 presents the performance of Artha Rin Adalat 2003 as on June, 2004. It is revealed from the table that as on June, 2004, out of total 89,747 cases, 38,856 cases were settled and Tk.1,56,288.60 crores was recovered. It is also clears from the table that average claim of the case is Tk.21.19 crores (amount claimed ÷ number of suits i.e.19,01,834.1÷89,747). Average claim of the settled case is Tk.7.67crores (2,98,208.8÷38,856) and average amount recovered from each suit is Tk.4.02 crores (1,56,388.6÷ 38,856). It is 52 percent (4.02÷7.67= 52%) of the claim. Table also shows that average amount claimed per case under trial is Tk.31.60 crores (16,08,533.6÷50,907). From this table it is concluded that small defaulter's case takes short and big defaulter's case takes longer time to settle.

CHAPTER 5

METHODOLOGY

5.1 Overview

The central premise of the study is that banks frequently make loans which are seriously flawed at their inception and subsequently become problem loans or charge off (Behrens 1990, 31). Literature supports this idea but requires empirical validation because any empirical study was not conducted in Bangladesh to validate or to reject this statement. Present study is indented to verify this. This study has followed the sequential exploratory research strategy of mixed methods procedures. Initial phase of it, is qualitative research which is followed by quantitative research. Phase1 (one) has looked at specific bad loan cases. Case study method has been used to better understanding the actual credit management process of sample banks and to identify the causes of problem loans. In the case study, the research has studied loan files of borrower in the offices of the sample banks. Phase 2 (two) has been quantitative one and it has looked at the respondents opinion about credit management of banks in Bangladesh and their satisfaction level about various steps of it i.e. credit investigation, credit analysis, credit monitoring and reviewing and techniques of handling problem credit. Opinion survey has been conducted through self-constructed questionnaire.

There is a great need to explore actual credit management process of banks in Bangladesh to find out the answer of the questions: what information credit officer's need for assessing creditworthiness of borrower? What are sources of information? What techniques are they applying for credit investigation, credit analysis, credit monitoring and reviewing, and for handling problem credit? It is necessary to know the perceptions of the groups most concerned with these issues. Theoretical arguments are plenty; the unfulfilled need is to obtain evidences from an empirical study to validate the theoretical arguments. The research design describes in this chapter is intended to meet that need. Specifically, this research is designed to explore actual credit management process follow by sample banks and to assess strengths and weaknesses of four variables: (i) credit investigation; (ii) credit analysis; (iii) credit monitor and review, and (iv) handling problem credit through case study and through subject's judgments.

5.2 Case Study

Research approaches range from description to validation. One of the descriptive approaches to research is case study. Case study can also be viewed to explore. It is decided to use this approach in this study to explore the validity of one conclusion that most of bad loans were bad before their initiation. Before going to test this hypothesis on the basis of opinions of different interested parties, it is considered better to go for content analysis of some of the bad loan cases selected purposely. Steps followed in this phase of the study are discussed in the following subsections.

5.2.1 Selection of Sample Banks

Phase 1 of this research is case study i.e. content analysis of different loan files. In Bangladesh, it is very difficult to enter into the credit file for study. Bank follows a process for approving and handling its credit. But bank and its credit officers are reluctant to disclose actual process they followed in approving credit, its actual position and techniques they used in handling bad loans. For these reasons, sample banks for the case study were chosen on the basis of the ease of access in credit files. To pursue entering into credit files and in selecting sample banks, the researcher has taken into consideration the ownership of the bank and magnitude of nonperforming loans. The plan was to take one Development Finance Institution (DFI) as representative of DFIs, one Nationalized Commercial Bank (NCB) as representative of NCBs, one first generation Private Commercial Bank (PCB) as representative of PCBs, and one Denationalized Commercial Bank as representative of Denationalized Commercial Banks.

5.2.2 Selection of Sample Cases

Multiple cases have been chosen for the study. Multiple cases were chosen because multiple cases are considered more compelling and the results of the study are considered more robust (Herriott and Firestone 1983, Quoted from Yin1994, 45). These cases are literal replicate[†] in nature. Five six or more replications assure the higher degree of certainty (Yin 1994, 50). For ensuring higher degree of certainty ten (10) replicate cases have been chosen. In choosing loan cases, the head of respective department or branch manager was consulted. Nonperforming loans file consists of a

---

[†] Literal replication means, predict that all cases will have similar results

lot of volumes and banks have been maintaining their records for many years. In most cases, banks failed to maintain all volumes properly and to keep it in one department. Due to non-availability of complete files, sample of complete credit files have been selected for the study. Content analysis method was used to study on those credit files which were selected for loan sanctioning during 1982 to 1996. This period was decided to study because it is evident from past researches that about 80 percent non performing loans (43.48% during 1982-1990 and 36.96% during 1991-1996, Muinul 2005, 8) were sanctioned during this period. Out of ten (10) cases, five (05) are long term-loans, four (04) are short-term loans and one is mixed short and long-term loan in nature. Data were collected by reading loan files of borrowers in the offices of the banks. A checklist was prepared ahead of content analysis. Files information was compared with the checklist. Deviations from checklist were identified and attempts were made to find out the causes of deviations.

5.2.3 Data Collection

A pilot study has been done prior for selection of specific process to collect data, to determine types of data to be collected in case study. Pilot study provided the researcher considerable insight into the basic issues of case study. This information has been used in parallel with an ongoing review of relevant literature. So, the final research design includes both the prevailing theories and fresh set of empirical observations. Data have been collected from banks documents and from interview of credit officers. Documents like, loans applications forms; companies proposals; feasibility study reports; minutes; corresponding letters between banks and borrowers; the branch credit proposals; file notes; legal notices; court verdicts; Bangladesh Bank letters; surveyor opinions; credit officers reports have used as sources of data.

5.2.5: Data Validity and Reliability

Pilot study, use of several sources of data, collection of original evidence ensures data validity and original citations from files ensure reliability of data.

5.2.6 Presentation of Cases and Analysis of Finding

To study cases, to present it and to analysis the findings, typological[†] data analysis model has been used. In typological data analysis model, everything observed under

[†] Typological: In typological data analysis model, everything observed under study are divided or grouped on the basis of some canon for disaggregating the whole phenomenon. (LeCompte and Preissle 1993, 257 Quoted Hatch 2002, 152).

study are divided or grouped on the basis of some canon for disaggregating the whole phenomenon (LeCompte and Preissle 1993, 257 Quoted Hatch 2002, 152). Typological data analysis starts by dividing the overall data set into categories or groups based on predetermined typologies. Generally typologies are generated from theory, common sense, and/or research objectives and initial data processing happens within those typological groupings (Hatch 2002, 152). Here steps of credit management are assumed as typology and cases are present and analyses by following chronological steps of credit management.

5.2.7 Case Study Report

Summary of the case study findings termed as case studies report along with cross case analyses have been prepared and presented.

5.3 Opinion Survey

It is a mixed methods research. Phase one of it is case study. Phase two is an opinion survey. Opinion survey is intended to cross examine and to validate the findings of the case study. The following subsections have discussed the steps followed in the opinion survey.

5.3.1 The Dependent Variable

It is customary that loan will repay on the expiry of its tenure. But non performing loans are the problem around the globe. Many researchers identified poor credit policies (Borish et al.1995; Muller 1994), poor risk assessment (Sundararajan 1992; Zamaroczy 1992; Borish et al 1995; Backstorm 1999; Meyer 2000), political influence (Sundararjanan 1992; Islam et al.1999; Sobhan 2000), insider lending (Carse 1999; Mahmood 2003), directed lending (Carse 1999), as the causes of non-performing loans. These causes identified by researchers are somehow related to steps of credit management. Whatever the causes identified by scholars, it is believed by the researcher that entire problems can be overcome if credit management system can be made efficient and if it can works properly.

5.3.2 The Independent Variables

Existing literature stated that, weak credit management i.e. inadequate investigation to collect information about borrowers and their business prospect, poor or cursory analysis of information (Anderson and Khambatta 1981; Alam 2000; Mahmood

2003), infrequent credit review for detecting signs of bad performance of borrowers and ineffective techniques for handling problem credit are the main causes of non-performing loans. Credit management involves many variables, which were presented in the Chapter 3. Because it is not feasible to include all the variables of credit management in this study, the research has selected a relevant subset of these variables for empirical verification (examination). Existing literature indicates that there are four important variables with particular credit and its management. These are (1) Credit investigation, (2) Credit analysis, (3) Credit monitoring and review, and (4) handling problem credit.

By functional system we can say that; credit management is the function of credit investigation, credit analysis, credit monitoring and review, and handling problem credit. In functional form we can write;

Cm =f (credit investigation, credit analysis, credit review, and handling of problem credit). If we denote

Credit management	= CM
Credit investigation	= I
Credit analysis	= A
Credit monitoring and review	= M
Handling problem credit	= H

We can rewrite the function as CM = f (I, A, M, H)

Thus any strengths/success/satisfaction or weakness/failure/dissatisfaction of an independent variable will affects the strength/success/satisfaction or weakness/ failure/ dissatisfaction of credit management.

Though credit management involves various steps (here termed as variables), in this research, it is assumed that remaining variables; credit interview, credit pricing, sanctioning, negotiation, documentation, disbursement are performing good, hence these variables were not included in this verification.

5.3.3 Variables: Research variables, questions and items to be surveyed are presented in the following table:

Table# 5.1
Shows the Research Variables, Questions and Items to be Surveyed

Variables	Research Questions	Items to be Surveyed
Credit Investigation	Are credit officers in Bangladesh in need and therefore, collecting financial as well as non-financial information about borrowers, their business and products where it is available?	Credit investigation policy, sources of credit information, facilities for credit investigation, maintenance of master file for recording credit, outsider influence, insider influence, and recommendation of necessary steps in credit investigation
Credit Analysis	Are credit officers in Bangladesh in need and, therefore analyzes financial as well as non-financial information to asses the creditworthiness of borrowers?	Repeated relationships, volatile economic condition, corporate life cycle, financial fraud, market price of the share, tax information, verification of tax information, corporate personality, independent credit analysis department /agency
Credit Monitoring and Review	Are the credit officers in Bangladesh monitoring and reviewing the performance of borrowers and grading it?	Set policy, establishment of credit review department, information use for review, frequency of review, risk grading system, discrepancy in credit analysis and review, and administrative action
Problem Credit Resolution	Are default loans resolution techniques effective in Bangladesh?	Early warning system of problem loans, techniques in handling problem loans, present law for recovery of problem loans
Causes of Default loans	What are the causes of loan defaults in Bangladesh?	Outsider influence, insider influence in granting loans
Other/Miscellaneous	What are the present status of credit policy, credit interview, and credit pricing, documentation, and disbursement?	Credit policy, credit interview, credit granting authority, documentation, credit structuring, and disbursement

5.3.4 Subjects

Three subject groups have selected for the study namely: Credit officers, Bad Borrowers and Good Borrowers.

5.3.4.1 Selection of Relevant Respondent Groups

Concerns about problem of nonperforming loans (result of weak/poor credit management) have become widespread in the last two decades around the world. It is also increased concern and controversy among various groups. This concern has become increasingly evident in the literature and financial press. The inevitable active interest of governmental agencies has led to amend and enact new laws for dealings nonperforming loans. It is evident that perceptions of the causes of nonperforming loans are widely divergent across the subjects but consensus is that it is an imperative problem for the financial sector as well as for the economy as a whole. Major objectives of this study are to explore the credit management process of banks in Bangladesh; to assess its strengths and weaknesses; to identify the causes of nonperforming loans; and to invent the probable way of solution. It is not feasible to get the perceptions of all interested parties; hence representative subjects: namely (i) Credit officers (ii) Bad borrowers and (iii) Good borrowers have chosen for this survey.

5.3.4.2 Justification of Selecting Subjects

Credit Officers: It is a mixed methods research. Findings of the case studies (qualitative research) were compared with the findings of the opinion survey (quantitative research) to compare, to conform, and to validate the research findings. Credit management activities i.e. credit investigation, credit analysis; credit monitoring and review and handling problem credit are the tasks of credit officers. They are included in the survey on the assumption that they are directly involved in credit management process and will be able to serve the purpose of the study. Mainul et al. (1998) surveyed opinions of both credit officers and borrowers in their research related to default loans. Therefore, credit officers' opinions are deemed suitable to take into consideration in this research.

Bad Borrowers: Traditionally, the important related parties with credit management are borrowers and credit officers. Because it is a mixed methods research and in the case studies all cases is replicate in nature i.e. bad loan files, so it is considered suitable to include bad borrowers in the survey. Earlier Mainul et al. (1998) surveyed opinions of both credit officers and bad borrowers in their research related to default loans. It is assumed that the opinions of the bad borrowers will help unearthing real causes of weaknesses/strengths of credit management and in identifying the causes of default loans.

Good Borrowers: Bank loans are funding from public savings. Default means erosion of public money (Sobhan 1990, 234). It is assumed that higher default risk increases the interest rate. Good borrowers claim that they are bearing higher interest rate for the defaulters. Therefore, good borrowers might have some assessment about credit management and causes of problem loans. Hence they are considered suitable for the opinion survey.

5.3.4.3 Sample Scope

Because this research is an opinion survey rather than experiment, the randomness and the level of generalizability of the sample selection are deemed more important than the quality of the sample. In order to maximize responses from samples, it is decided to select subjects from Dhaka Metropolitan City. Shockley (1979) forwarded several arguments for taking local sample. He stated that

> It was believed that a local sample would yield a higher response rate due to the familiarity to the subjects with the researcher, and less costly communication. It was also believed that the proximity of the subjects would make more effective follow up procedures possible, potentially increasing the response rate. Subjects familiar with the researcher, researcher supervisors, would be more likely to invest adequate time to care in the completion of the questionnaire. Finally, the use of local sample potentially reduced sampling error by reducing variation in responses due to geographic and cultural differences between members of the subjects groups.

5.3.4.4 Population

Since this research followed the sequential exploratory research strategy of mixed methods procedures, sample credit officers and borrowers are selected from the sample banks. An attempt has been made in this study to integrate and to compare the findings of case studies with the findings of the opinion survey. So it is deemed desirable to survey the opinions of the case studies sample banks' credit officers and borrowers. Due to non availability of published list of credit officers of banks, it is assumed that every branch of a bank has minimum one officer in charge of credit/advance. Therefore, three commercial banks with 136 branches in the Dhaka metropolitan city have at least 136 credit officers and these 136 credit officers from 03(three) commercial banks have taken in to population. 38(Thirty eight) credit officers of loan operation department, loan recovery department and law department of a development finance bank not less than the rank of manager are also taken in the population. Top 80(eighty) borrowers (20 top borrowers from each sample bank according to the list of BB), top 80(eighty) bad borrowers (20 top bad borrowers from each bank according to the list of BB) total 160 borrowers are included in the population. The following table shows the population size of the research.

Table# 5.2
Size of the population

Respondents Groups	Numbers	Numbers
Credit Officers:		
Bangladesh Shilpa Bank	38	
IFIC Bank Ltd.	17	
Pubali Bank Ltd.	56	
Rupali Bank Ltd.	63	174
Top Good Borrowers:		
Bangladesh Shilpa Bank	20	
IFIC Bank Ltd.	20	
Pubali Bank Ltd.	20	
Rupali Bank Ltd.	20	80
Top Bad Borrowers:		
Bangladesh Shilpa Bank	20	
IFIC Bank Ltd.	20	
Pubali Bank Ltd.	20	
Rupali Bank Ltd.	20	80
Total		**334**

5.3.4.5 Sample Size of the Study

The researcher has been working within a limited timeframe and financial resources. It is true that a larger sample size ensures greater precision of the output. But it is costly and time consuming to handle a larger sample size. Aderson (1996, 816) stated that size of the sample must be large enough to provide a specified level of precision. But budget of the study dictates the sample size. Researcher has tried to make trade-off between cost/time and precision. Since the population is known, sample size has been determined by using the following formula (Anderson1996, 820)

$$n = \frac{N.p(1-p)}{N\left(\frac{B^2}{4}\right) + P(1-p)}$$ $$n = \frac{334 \times .5(1-.5)}{334\left(\frac{10^2}{4}\right) + .5(1-.5)}$$ $$= \frac{83.5}{1.085}$$ $$= 77$$	Where: N = Number of known population = 334; P = Proportion belonging to specified Category =.5(Assumed); (1-p) = Proportion not belonging to specified category =.5 (Assumed); B = Level of significance =10% (i.e., level of significance; n = Sample size.

5.3.4.6 Operational Sample Selection and Samplings Technique

Out of 334 populations, 77 samples have been determined by using Anderson (1996) formula. Sample representations from various groups are determined by using the proportion formula of population. Out of total 174 credit officers, 40 credit officers, 19 top good borrowers out of 80 top good borrowers, 18 top bad borrowers out of 80 top bad borrowers of four sample banks have been selected as sample. The persons to be included in the survey are randomly selected from the population. The population size and proportionate number to be surveyed are presented in a table below.

Table#5.3
Population and Sample size

Respondent Groups	Population		Sample	
	Numbers	**Numbers**	**Numbers**	**Numbers**
Credit officers:				
Bangladesh Shilpa Bank	38		06	
IFIC Bank Ltd.	17		03	
Pubali Bank Ltd.	56	174	09	40
Rupali Bank Ltd.	63		10	
Top Borrowers:				
Bangladesh Shilpa Bank	20		05	
IFIC Bank Ltd.	20		05	
Pubali Bank Ltd.	20	80	05	19
Rupali Bank Ltd	20		04	
Bad performers:				
Bangladesh Shilpa Bank	20		05	
IFIC Bank Ltd.	20		05	
Pubali Bank Ltd.	20	80	04	18
Rupali Bank Ltd	20		04	
Total	**334**	**334**	**77**	**77**

Proportion of representation: $\frac{77}{334} = 0.230$

5.3.4.7 Data Collection and Instrumentation: Questionnaire Development

For phase 2 of this research, data have been collected by means of a self constructed questionnaire. The questionnaire is divided into eight parts. Parts of the questionnaire and corresponding research issues and questions numbers are presented in the table below.

Table# 5.4
Shows the Various Parts of the Questionnaire and its Corresponding Question numbers

Serial No.	Part	Research Issues Covered	Question Numbers
1	A	Personal information of respondent	A1 to A5
2	B	Credit management process of bank	B1
3	C	Credit investigation	C1 to C5
4	D	Credit analysis	D1 to D6
5	E	Credit monitoring and review	E1 to E3
6	F	Handling problem loans	F1 to F3
7	G	Causes of nonperforming loans	G1 to G2
8	H	Miscellaneous questions	H1 to H8

Questionnaire has included both open ended and close ended questions. A copy of the questionnaire is enclosed in appendix II. In case of some close ended questions, the Likert five points scale technique has been used to measure the strengths/weaknesses of the independent variables. In these questions, each subject is required to state his/her degree of agreement level about an issue along a numerical scale ranges from 5 to I. Kothari (1990, 106) viewed that it is desirable to develop same proportion of affirmative and negative issues (statements) in the questionnaire to measure the satisfaction (agreement) level of respondents about a particular variable. The study has followed this technique and develops same proportionate affirmative and negative issues/statements in the questionnaire to measure the agreement/disagreement level of respondents. In the statement, the scale ranges from strongly agree to strongly disagree. In affirmative statements, strongly agree was awarded 5 points, agree was awarded 4 points, disagree was awarded 2 points and strongly disagree was awarded 1 point. In negative statements, strongly agree was awarded 1 point, agree was awarded 2 points, disagree was awarded 4 points and strongly disagree was awarded 5 points. Undecided level awarded 3 points in both natures of statements. It is assumed (so as it assumed by kothari, 1990) that, when same proportion affirmative and negative statements are included in the questionnaire then equal or more than ($\geq$) undecided level summated score indicates satisfaction of respondents about variable and score less (<) then the undecided level indicates dissatisfaction of respondents about variable.

5.3.4.8 Pre Testing the Questionnaire

To ensure construct and content validity, the questionnaire was pre tested. 20 (twenty) subjects out of total 77 sample (i.e. 25% of total sample) were participated in the pre testing. Respondents were purposely selected to test the questionnaire on the assumption that most resourceful respondents were considered best to give an opinion about suitability of the questionnaire. 100 percent subjects returned the filled in questionnaire. By analyzing questionnaire, it was found that some questions were not clear to them and these questions were made clear in final questionnaire by adapting their suggestions. Some questions were same in nature and these were dropped from the final questionnaire. By analyzing first and fourth quartile it was found that some statements secured score equal or near equal and failed to discriminate between favorable group and unfavorable group. Hence these statements were discarded from the final questionnaire. Total 7(seven) statements were discarded from pre tested questionnaire. Two questions were found duplicate in nature and these two were dropped from the final questionnaire. One question deemed necessary to supplement the other question thus included in the final questionnaire. After incorporating respondent's suggestions, final questionnaire was made ready for data collection.

5.4 Hypotheses of the Study

For conducting this study, it is agreed to follow the sequential exploratory research strategy of mixed methods procedures. For qualitative research, the case study method and for quantitative research the survey method has been undertaken. In case studies, the study has been attempted to go through the credit files of the sample banks. It is expected that it will help the researcher to find out the answer of these queries (1) what aspects credit officers investigated in credit investigation? (2) from where they collected information? (3) how they conducted credit analysis? (4) what anomalies exits between information in borrowers application and the credit officer credit analysis and between the branch credit analysis and the head office credit analysis? (5) how many times the credit officer inspected and monitor the borrowers' businesses? (6) how frequent, the credit officer review the performance of the borrowers? (7) how they identified the sign of problem loans? and (8) what techniques they used for handling problem loans? In the opinion survey, the researcher has gone to collect the opinions of credit officers, good borrowers and bad borrowers about credit management process of banks in Bangladesh, their agreement/disagreement level about present credit investigation, credit analysis, credit review and nonperforming loans handling techniques. To test the respondents' opinion statistically about above mentioned aspects, the study has assumed some research hypotheses. These research hypotheses along with research questions and objectives are presented in the next section.

5.5 Research Questions, Objectives, and Hypotheses: Research questions, objectives and hypotheses of the study are presented in the table# 5.5

Table# 5.5
Shows the Research Questions, Objectives, and Hypotheses of the study at a Glance

Research Questions	Objectives of the Study	Hypotheses of the Study
What is the credit management process of banks in Bangladesh?	To study steps of credit management process in Bangladesh	(1) H_0: Banks in Bangladesh are not following most of the steps of credit management process (2) H_0: There exists no difference of opinion among three respondent groups about steps of credit management in Bangladesh
Do banks in Bangladesh have any written credit policy?	To study whether banks in Bangladesh have any written credit policy	
Do banks in Bangladesh have any credit investigation policy?	To study whether banks in Bangladesh have any credit investigation policy.	(3) H_0: Banks in Bangladesh have no credit investigation policy (4) H_0: There exists no difference of opinion among three respondent groups about credit investigation policy
What aspects do credit officers in Bangladesh generally investigate?	To study what aspects credit officer are investigating to collect information?	(5) H_0: Credit officers in Bangladesh do not investigate enough aspects in credit investigation (6) Ho: There exists no difference of opinion among three respondent groups about the aspects, credit officers in Bangladesh are investigating in credit investigation
From where do credit officers generally collect information?	To study from where credit officers in Bangladesh collect information.	(7) H_0: Credit officers in Bangladesh are collecting information about borrowers and their business from fewer sources (8) H_0: There exists no difference of opinion among three respondent groups about the sources of information now using credit officers in Bangladesh
What are the other probable sources, from	To recommend the probable way of sources	

Table : 5.5 Continued

where credit officer can collect information?	from where credit officer can collect information.	
Is credit investigation in banks in Bangladesh satisfactory or not?	To assess the credit investigation of banks in Bangladesh	(9) H_0: Credit investigation of banks in Bangladesh is not satisfactory (10) H_0: There exists no difference of opinion among three respondent groups about the strengths/weaknesses of credit investigation of banks in Bangladesh
Do banks in Bangladesh have any credit analysis policy?	To study whether banks in Bangladesh have any credit analysis policy	
What are the aspects credit officers take into consideration in credit analysis?	To study what aspects credit officer are analyzing in credit analysis?	(11) H_0: Credit officer in Bangladesh failed to analyze all relevant aspects in credit analysis (12) H_0: There exists no difference of opinion among three respondent groups about the aspects credit officers in Bangladesh are analyzing in credit analysis
Are credit officers analyzing adequate aspects in credit analysis?	To whether credit officers are analyzing adequate aspects in credit analysis?	
Is credit analysis of banks in Bangladesh satisfactory or not?	To assess credit analysis in Bangladesh.	(13) H_0: Credit analysis of banks in Bangladesh is not satisfactory (14) H_0: There exists no difference of opinion among three respondent groups about the satisfaction of banks' credit analysis in Bangladesh
Do banks in Bangladesh have any credit monitoring and reviewing policy?	To study whether banks in Bangladesh have any credit monitoring and reviewing policy.	(15) H_0 : Banks in Bangladesh do not have credit monitoring and reviewing policy
What aspects do credit officers in Bangladesh monitor and review for evaluating performance of borrowers and their business?	To study what aspects credit officer are monitoring and reviewing for evaluating performance of borrowers and their business?	(16) H_0: Credit officers in Bangladesh don't adequately monitor and review the performance of borrowers (17) H_0: There exists no difference of opinion among

Table : 5.5 Continued

		three respondent groups about the aspects, credit officers in Bangladesh usually analyze for reviewing the performance of borrowers
Are monitoring and reviewing performances of banks in Bangladesh satisfactory or not?	To assess present credit monitoring and reviewing performance of banks in Bangladesh	(18) H_0: Credit monitoring and review performance of banks in Bangladesh is not satisfactory (19) H_0: There exist no differences of opinion among three respondent groups about the satisfaction of credit monitoring and reviewing performance of banks in Bangladesh
What are the techniques credit officers in Bangladesh are using for handling problem credit?	To Study what are the techniques credit officers in Bangladesh are using for handling problem credit?	(20) H_0: Credit officers of banks in Bangladesh failed to use adequate techniques for handling problem loans (21) H_0: There exists no difference of opinion among three respondent groups about the techniques use by credit officers in handling problem loans
Are present default loans handling techniques of banks in Bangladesh satisfactory or not?	To assess present default loans handling techniques of banks in Bangladesh.	(22) H_0 : Default loan resolution techniques of banks in Bangladesh are not satisfactory (23) H_0 : There exists no difference of opinion among three respondent groups about the techniques now applying by credit officers in handling default loans
Do there exist any symptoms in credit files that loans will become default in future?	To study whether there exist any symptom in the files that loans will become default in future.	
What are the causes of default loans?	To identify the causes of default loans default loans.	(24) H_0: There exists no difference of opinion among three respondent groups about causes of default loans

5.6 Data Analysis

It is a nonparametric test. In the opinion survey, to measure strengths/weaknesses of particular independent variables the study has been used the Likert summated scale technique. Likert summated scale awarded some numerical values in every statement. Hence to measure agreement or disagreement of one-subject about a particular variable "Chi-square" test, between two-subjects 't' test, and among three subjects 'F' test have been applied. Over all analysis have been conducted by using statistical tool like Statistical Package for Social Science (SPSS) Initially the researcher has taken help from SPSS expert.

5.6.1 Justification of Using Chi-square Test, T- test, and 'F' Test

To measure the agreement or disagreement of one-sample about a particular variable "Chi-square" test is good to use since the sample size is large. For two samples, it is best to use the't' test and for more than two samples it is best to use 'F' test. The study wants to identify the agreement and disagreement level between good borrowers and bad borrowers and between good/ bad borrowers and credit officers. Literature suggests that it is good to use't' test to test the agreement/disagreement between subjects and 'F' test to test the agreement/disagreement among subjects.

5.7 Comparison of Findings (Data Integration)

To determine the degree of convergence of sources of data, in addition to the case study tabulations, the findings of case studies have compared with the findings of the opinion survey. The evidences from ten (10) case studies have tabulated along the findings from the seventy seven (77) respondents opinion. Comparison has made to provide added confidence that two steps are pointing toward consistent/different findings about credit management of banks in Bangladesh.

5.8 Statistical Analysis and Test of the Reliability

To test the reliability of the findings of the study, the study findings have been tested. To test the findings of the opinion survey, findings have been tested by using appropriate test. To measure statically the agreement and disagreement level of respondent groups and to test the hypothesis on identical issues, "Chi-square" test, 't' test and "F" test have used.

5.9 Limitations of the Study

As is true in most researches, this study is subject to a number of limitations on the generazibility of the findings arising from number of sources. For example, generalization to population outside the groups participating in the survey is tenuous for two reasons:

First, the survey subjects are restricted to the sample banks credit officers in Dhaka metropolitan city. The effects of geographic, cultural, and other differences in subjects chosen from other localities are impossible to predict.

Second, for three of the subject groups, the population from which the subjects are drawn did not represent the entire population of interest. Credit officers, for example, are selected from sample banks only. Credit officers of other banks located in Dhaka city are not eligible for selection.

In the case study, the researcher studied the credit files of sample banks only. The inclusion or exclusion of banks in sampling frame may lead to different findings of the study. In the current study, the researcher studied the bad credit files of sample banks only. The inclusion of both bad and good credit files could lead to different findings of the study.

Over all analysis (Taking three respondent groups simultaneously) and inter group (two groups at a time) analyses have been carried out only on the basis of group. Other characteristics like age, experience, academic qualification, academic discipline etc. might have some impact on opinion of the respondents. But analyses on the basis of these have not been done.

Research is endless. Its findings are not true for all times. No research can claim that it is complete. Everything cannot unearth by a single research. No exception of this research. This research is echoed the voice of Yin (1994, 149-50)

> It is not an exaggeration to say that no analysis is ever complete. There are always more data than can be adequately processed, more levels of understanding than can be explored, and more stories than can be told.

CHAPTER 6

QUALITATIVE APPROACH

CASE STUDY PRESENTATION, ANALYSIS AND FINDINGS†

6.1 Overview

The study has followed the sequential exploratory research strategy of mixed methods procedures. Initial phase of this research design has been qualitative in nature, which has been followed by a phase of quantitative one. Phase one has been used the case study method and it looked at specific default loan cases. The case study method has been used to better understanding the actual credit management process of sample banks and to identify the causes of default loans. Multiple cases have chosen for the case study. These cases are replicate in nature. For ensuring higher degree of certainty, ten replicated cases have been chosen. To collect data in the case studies, to present these and to analyze the findings, typological data analysis model has been used. Data have been collected by reading loan files of the borrowers in the offices of the sample banks. As planned, this part includes three credit files from a Development Finance Institution (DFI), two from a Nationalized Commercial Bank (NCB), two from a first generation Private Commercial Bank (PCB), and three from a Denationalized Commercial Bank.

In choosing non performing loan files, the researcher has consulted with the head of respective department or branch manager. Non performing loan files consist of a lot of volumes and banks have been maintaining these records for many years. In most of the cases, credit officers did not maintain all volume properly and records were not kept in one department. Samples of complete credit files were taken. The researcher has studied those credit files which were sanctioned during 1982 to 1996. Because it is evident from past researches that about 80% defaulted loans were sanctioned during 1982 to1996 (43.48% during 1982-1990 and 36.96% during 1991-1996, Muinul 2005,8). Out of ten cases, five cases are long term, four are short-term and one is mixed short and long-term loan in nature.

† Disguise name of borrowers' companies and borrowers used in this study

List of the sample companies, their financing institutions and the comments their on are presented in the table below:

Table # 6.1
Shows the name of Sample Companies, their Financing Institutions and Comments their on

No	Name of Sample Companies	Financing Institutions	Comments
1	M/S S. Textile Mills Ltd.	Bangladesh Shilpa Bank	Bankrupt
2	E. Chemical Complex Ltd.	Bangladesh Shilpa Bank	Default, Some installments were recovered
3	M/S S. Textile Mills Ltd.	Bangladesh Shilpa Bank	Default, Sale of mortgage property, Some installments were recovered
4	S. Packaging Ltd.	Pubali Bank Ltd.	Default, Case file
5	I. Leather Process Ltd.	IFIC Bank Ltd.	Default, Installments are recovering
6	M. Group of Industries Ltd.	Pubali Bank Ltd.	Default, Some installments were recovered
7	M/S Tannery Ltd.	Rupali Bank Ltd.	Default, Case file
8	M/S L. Footwear Ltd.	Rupali Bank Ltd.	Default, Some reschedule installments were recovered
9	Air Sarafat Ltd.	IFIC Bank Ltd.	Default, Some reschedule installments were recovered
10	A. Poly Packaging & Printing	Pubali Bank Ltd.	Default, Case File

6.2 CASE STUDY 1

Name of the company : M/S S. Textile Mills Ltd.

Name of Financing Institution : Bangladesh Shilpa Bank

6.2.1 Abstract

To make a company successful, managerial and financial ability of owners, their good intention and social and financial viability of the company are necessary. It is found in this case study that in preparing feasibility study report; credit officers were made poor credit investigation. They were not collected adequate information. They failed to assess accurately the market demand of products, and to assess financial and managerial ability of the owners and capacity of their equity support. Credit officers overestimated the sales of the company. Bureaucratic connection played a dominant role in sanctioning this loan. It is evident from over invoicing of machinery that intention of the borrowers was not good. After booking the loan, credit officers were failed to inspect, monitor and review the performances of the borrower regularly. It is evident from the file that Balancing Modernizing Reconstruction and Extension (BMRE) decision was also influenced by a politician. From file study, it is proved that it was a wrong decision and the loan was turned into bad loan.

6.2.2 History of the Company

S. Textile Mills Ltd., a power loom weaving textile mills was set-up at Up-Zilla area in the district of Naogaon. Later it was transferred to Dhaka Export Processing Zone (DEPZ). In the year 1981, the owners of the company applied to the bank for financing 12 powers looms weaving textile mills. Originally, cost of the project was estimated at Tk.45.75 lac and it was categorized as: Bank's foreign currency loan Tk.21.00 lac; Local currency loan Tk.13.25 lac; and Sponsors equity Tk.11.50 lac. Later, the bank revised the project cost at Tk.54.96 lac and sanctioned the loan on 27.07.1981. Management of the company was vested on three member's management board where all were the family members. Company's commercial operation started on June, 1984. In 1987 it become sick and suspends its operation. After becoming sick, in 1989, owners took Balancing, Modernizing, Rehabilitation, and Extension (BMRE) program and applied to the bank for financing the BMRE program. Bank accepted the proposal and sanctioned Tk.131.00 lac foreign currency loan to import machinery and Tk.26.55 lac local currency loan to meet working capital needs. But company failed to go to commercial operation. After borrowers failed to start its commercial operation and to repay the loan as per agreement, bank on 04.02.2003 filed a case against the borrowers under the Bankruptcy Act. On 21.09.2003 court gave decree in favor of bank and later on 07.04.2004 court declared the borrowers bankrupt. Out of total claims Tk.2,75,54,302, bank management board in their 449th meeting held on 16.01.2005 decided to write off Tk.2,71,13,314 after adjusting borrower's sundry deposit Tk.4,19,718. Bank also wrote off its equity support Tk.20.00 lac as bad and loss on May 2005 after getting permission from Bangladesh Bank.

6.2.3 Directors of the Company

A.R.Sidqque: A.R.Sidqque, the Managing director of the company, an undergraduate, owner of a flour mill and a stationery shop. He was 35 years old. He invested Tk.3.50 lac in his existing business and its annual turnover was Tk.1.10 lac. As per application form, he has net worth Tk.27.00 lac, which includes: Land Tk.8.18 lac, Building Tk.11.20 lac, Cash Tk.2.00 lac, and Paddy land Tk.6.00 lac. He has no liabilities. He paid income tax Tk.800.00 in the assessment year 1978-79, 1979-80 and 1980-81.

A. K. Sidiqque: A. K. Sidiqque, the executive director of the proposed company, a science graduate, the owner of a rice husking mill and a first class contractor. He was 29 years old. As per application form, he invested Tk.Tk.4.00 lac in his existing business and its annual turnover was Tk.1.40 lac. Net worth of A.K. Sidqque was Tk.3.76 lac, which includes: Land Tk.1.26 lac, Cash Tk.1.00 lac, and Paddy land Tk.1.50 lac. He has no liabilities. He paid income tax Tk.800.00 in the assessment year 1978-79, 1979-80, and 1980-81.

A. H. Sidiqque: A. H. Sidiqque, the director of the proposed company an electrical engineer, has been serving in Quatar since 1979. His net worth was Tk.9.80 lac. The composition of his net worth was: Land Tk.1.20 lac; Building Tk.3.10 lac; Cash Tk.2.00 lac; and Paddy land Tk.1.50 lac. He has no liabilities.

6.2.4 Credit Investigation

After the receipt of the loan application, bank's head office sent a letter to its Rajshahi branch on 14.9.1981 to inspect and to assess the value of factory land of the company. On 7.10.81 branch officials inspected the factory land and sent an inspection report to head office on 15.10.81 which contained the information that purchase price of factory land was Tk.5, 000.00 per decimal[†] in the year 1980 and assessment value of Tk.12, 000 per katha[†]

6.2.5 Feasibility Study Schedule

A feasibility study schedule was prepared by the credit officer and it contained information that feasibility study started on 5.10.1981 and final credit proposal made ready for loan committee on 20.03.1982. A Gantt chart was also found in the feasibility report. Gantt chart exhibits the time schedules for completion of construction works, procurement of machinery and expected date of commercial operation.

6.2.6 Feasibility Study Report

Feasibility report contained appraisal of management, calculation of net worth, forecasting of profits, projection of demand, supply, demand supply gap and borrowers existing business performances etc. Aspects of the feasibility report are presented in the following subsections:

6.2.6.1 Management appraisal

By appraising management ability of borrowers credit officer's commented that,

> All members of management were young educated and have diversified business experience.

6.2.6.2 Net worth: Borrowers net worth is present in the table below:

Table # 6.2
Shows the net worth of the borrowers

(Tk. in Lac)

Particulars	A.R. Sidqque	A.K. Sidqque	A. H. Sidqque
Land & Building	15.00	4.30	1.25
Investment	3.10	2.93	Nil
Transport	Nil	2.08	Nil
Total	**18.10**	**9.31**	**1.25**
Less liabilities	Nil	Nil	Nil
Net worth	**18.10**	**9.31**	**1.25**

Source: Credit file

Table 6.2 shows that A.R. Sidqque's net worth was Tk.18.10 lac, A.K. Sidqque's Tk.9.31 lac and A.H. Sidqque's Tk.1.25 lac.

[†] Decimal is a local land measurement and one decimal is equal to 432 square feet.

[†] Khata is a local measurement of land and one khata is equal to 720 square feet. In loan application form borrowers attached key sponsor's/borrower banker's opinion where banker's opined that sponsor's transactions were satisfactory. He has no liabilities to the bank.

6.2.6.3 Profitability of Existing Businesses of Sponsor Directors: Profitability of sponsor directors existing businesses are presented in the table 6.2 below:

Table # 6.3
Shows the Profitability of Sponsor Directors Existing Businesses

(Tk in lac)

Particulars	A.R.Siddique			A.K.Sidduque		
	1978-79	**1979-80**	**1980-81**	**1978-79**	**1979-80**	**1980-81**
Revenue	.85	.87	.96	.57	.57	.59
Less Cost of goods sold	.53	.53	.61	.43	.43	.45
Gross Profit	.32	.34	.35	.14	.14	.14
Less General Expenses	.14	.15	.15	.05	.05	.05
Net Profit	**.18**	**.19**	**.20**	**.09**	**.09**	**.09**

Source: Credit file

Table 6.3 shows that among the three sponsor directors, A.R.Siddique, and A.K.Sidduque were businessmen. Net profits of A.R.Siddique were 18%, 19% and 20% in the financial year 1978 -79, 1979-80, and 1980-81 respectively. Net profit of A.K.Sidduque was 9% over three years.

6.2.6.4 Financial Position of the Existing Business of Sponsor Directors

Financial positions of the existing businesses of sponsor directors are presented in the table below:

Table # 6.4
Shows the Net worth of the Existing Business of Sponsor Directors

(Tk.in Lac)

Particulars	A.R. Siddique			A.K. Siddique		
	1978-79	**1979-80**	**1980-81**	**1978-79**	**1979-80**	**1980-81**
Current assets	.28	.43	.69	.26	.42	.52
Fixed assets	2.69	2.57	2.47	2.55	2.45	2.41
Total	**2.97**	**3.00**	**3.16**	**2.81**	**2.87**	**2.93**
Less liabilities	Nil	Nil	.11	Nil	Nil	Nil
Total	**2.97**	**3.00**	**3.05**	**2.81**	**2.87**	**2.93**

Table 6.4 shows that net worth of the existing business of A.R.Siddique and A.K. Siddque. The table revealed that net worth of A.R.Siddique's were Tk.2.97 lac, Tk.3.00 lac and Tk.3.05 lac in the financial year 1978-79, 1979-80 and 1980-81. The net woth of A.K.Sidduque's existing business were Tk.2.81 lac in the financial year 1978-79, Tk. 2.87 lac and Tk.2.93 lac in the years 1979-80 and 1980-81.

6.2.6.5 Profitability and important ratios of sponsor directors existing businesses

Profitability and important ratios of sponsor directors existing business are presented in the table below:

Table # 6.5
Shows the Profitability and Important Ratios of Sponsor Directors Existing Business

Particulars	A.R. Siddique			A.K. Sidduque		
	1978-79	1979-80	1980-81	1978-79	1979-80	1980-81
Net profit to sales	21%	22%	21%	16%	16%	15%
Net profit to equity	6%	6%	6.55%	3%	3%	3%
Net profit to capital employed	6.06%	6.33%	6.32%	3%	3%	3%

Source: Credit file

Table # 6.5 shows that net profit to sales, net profit to equity and net profit to capital employed of A.R. Siddique's were more or less same over the years and the net profit to sales, net profit to equity and net profit to capital employed of A.K. Siddique's were also same over the years.

Comment: In the feasibility report, the credit officer commented about the financial position and earning capacity of borrowers and it was as,

> The operation results and financial position appear to be satisfactory.

6.2.6.6 Means of Finance of the Company

Financing plan of the company is presented in the table below

Table # 6.6
Shows the Financing plan of the company

Particulars	Tk. in Lac
Shilpa Bank Foreign currency (F/C) loan	21.77
Shilpa Bank local currency (L/C) loan	8.00
Sponsors Equity	25.19
Total	**54.96**

Source: Credit file

Table 6.6 shows that total estimated cost of the company was Tk.64.96 lac. Means of finance were categorized as: Bank's F/C loan Tk.21.77 lac; Bank's L/C currency loan Tk.8.00 lac; and Sponsors equity Tk.25.19 lac.

The credit officer's comments about Equity Support: The credit officer drawn conclusion about borrowers' equity support capacity in this way:

> Borrowers will be able to support their equity from their past savings and earnings of their existing businesses.

6.2.6.7 Economic Analysis: In economic analysis, the credit officer forecasted supply, demand and contribution of the company to Gross Domestic Product (G.D.P.) and these were as follows:

Supply: The credit officer prepared a supply table by forecasting the future supply of the product. But the sources of data were not mentioned in the report.

Demand: He forecasted demand by using extrapolation method but failed to mention the sources of data and the criteria for selecting the base year.

Contribution to G.D.P.: Forecasted contribution of the company to the G.D.P. is presented in the table below.

Table # 6.7
Shows the Contribution of the company to G.D.P.

Sales estimated	Tk.48.38 lac
(-) Cost of goods sold	Tk.22.57 lac
Contribution to G.D.P.	Tk.25.81 lac
Contribution in percentage	53.34%
Debt Equity Ratio	54: 46

Source: Credit file

It is clear from table 6.7 that contribution of the company to G.D.P. would be Tk. 25.81 lac and the company's debt equity ratio would be 54:46.

6.2.6.8 Financial Analysis: In financial analysis, the credit officer forecasted the profitability of the company and calculated some financial ratios which are presented in the tables 6.9 and 6.9.

Table # 6.8
Shows the Forecasted Profitability of the Company

(Tk. in lac)

Particulars	**1st year**	**2nd year**	**3rd year**	**4th year**
Revenue	36.76	44.76	47.94	43.34
Gross profit	13.95	17.54	18.68	18.45
Earning before interest and tax	12.16	13.60	16.58	16.31
Earning after tax	7.47	11.14	12.45	12.58
Net operating profit after bond purchase	6.35	9.58	10.41	11.23

Source: Credit file

Table # 6.9
Shows the Forecasted Ratios of the Company

Ratios	1st year	2nd year	3rd year	4th year
Gross profit to sales (%)	38	39	39	38
Net profit to sales (%)	20	25	26	26
Net profit after bond purchased to equity (%)	28	34	29	25
Net operating profit to average capitalization (%)	21	25	24	22
Net profit after bond purchase to paid up capital (%)	25	38	43	45
Debt service coverage (times)	2.59	2.59	2.92	3.09
Financial Rate of Return	35%			

Source: Credit file

6.2.7 Facility Sought by Borrowers, Bank Sanctioned and Disbursed: How much loans sought by borrowers, how much banks' sanctioned and how much disbursed are presented in the table below:

Table# 6.10
Shows the Facility Sought by Borrowers, Bank Sanctioned and Disbursed

(Tk. in Lac)

Nature of loan	Borrowers Applied		Bank's Sanction		Disbursement	
	Date	Amount	Date	Amount	Date	Amount
F/C loan	27.7.81	21.77	25.5.82	21.77	22.4.83	21.77
L/C Loan	27.7.81	8.00	25.5.82	8.00	1984	8.00
L/C loan	14.8.84	8.00	---------	---------	--------	----------
F/C loan	29.10.89	131.00	19.1.93	131.00	11.5.94	131.00
W/C loan	29.10.89	26.55	19.1.93	26.55	--------	-------
Equity loan	17.6.95	47.00	23.10.95	20.00	30.12.98	10.00
					15.6.99	10.00
Total		**242.32**		**210.12**		**180.77**

Source: Credit file

Table 6.10 shows that several times borrowers applied for various types of loans. Several times they applied for loans of Tk.242.32 lac and bank's total sanctioned Tk.210.12 lac. Out of the sanctioned loans, the bank's disbursed loan amount of Tk.180.77 lac.

6.2.8 Procurement of Machinery

In 1982, out of 20(twenty) machines, borrowers imported 16(sixteen) machines from India and on 05.04.1983 sought permission to the bank to procure all Dobbies† and 4 (four) machines from local market. On 10.10.84, bank gave permission to procure the machines from the local market. But documents of procurement of four machines are not available in the file. After the bank approved rehabilitation program of the company, borrowers opened L/C to procure 34 (thirty-four) machines from China at a cost of Tk.131.00 lac. But file showed that China Supplying Company (CMC) supplied obsolete and under rated machines worth of Tk.16.00 lac. The bank accused the supplier of the machines for supplying obsolete and under rated machinery. For supplying obsolete and under rated machinery, the bank en-cashed Performance Bank Guarantee (PBG)†, black listed the supplier and their local agent. Borrowers again opened L/C to procure machines from India. It is found in the file that, some machines were procured and installed. The credit officer's on 03.05.1999 inspected the factory and reported that only 18 motors, out of 50(fifty) were installed and among of these, only 8(eight) motors were appeared original. On query of the credit officer, Managing Director (M.D.) of the company informed that rest of machinery and accessories are stored in the premises of his rented house.

6.2.9 Inspection Reports: The credit officer several times inspected the company and his date wise inspection reports are presented here:

15.11.1984

The credit officer reported that,

> Company has been performing its commercial operation since June 1984. Out of 16 installed machines, only 6 (six) were operating. Borrowers have not invested any fund from their part. (*Source:* Credit file).

11.2.1987

Inspection report contained information that,

> The manager of the company could not show any proper register for employment, account etc. Borrowers have diverted the line of production from cotton to synthetic weaving. The borrowers were not interested to complete the remaining construction work, installation of remaining machinery and to repay the bank due in-spite of operating the entire 16 loom in full swing. (*Source:* Credit file).

---

† Dobbies are essential parts of textile mills.

† Performance Bank Guarantee (PBG) is a guarantee given by supplier which provides guarantee that if supplier fails to supply agreed machines then purchaser has the right to en-cash the guarantee amount as compensation.

25.8.1988

After inspected the company, the credit officer reported that

> The operation of the company has been suspended since December 1987. No staff except one guard was found during inspection. Borrowers procure some machinery locally without prior permission from the bank. As per money receipt the value of machinery was Tk.4.01 lac but price might be Tk.2.26 lac. (*Source:* Credit file)

27.02.1989

The credit officer visited the company and reported that

> The company was closed after two years of its operation due to shortage of working capital. The sponsors promised to repay Tk.1.50 lac within May and Tk.2.25 lac within June 1989. (*Source:* Credit file)

02.10.1990

To evaluate the viability of the BMRE program, the credit officer visited the company and submitted a report to the bank management. His report contained the following information and comments,

> (1) No boundary wall was constructed (2) Office room was not constructed, (3) No door or windows was found in the warehouse, (4) No electricity connection, (5) Further investment of Tk.11.40 lac is necessary for factory building and for boiler construction. (*Source*: Credit file)

6.2.10 Profitability Position of the Company: It is found in the credit officer inspection report that, from January 1989 to October 1989, the company produced 2,33,000 yards synthetic gray cloth. Total accumulated loss of the company up-to October 1989 reached at Tk.5.83 lac. On query of the credit officer regarding losses, managing director of the company replied that company incurred losses due to increased raw materials, electricity, duty, administrative costs and decreased prices of finished goods.

On his inspection, he assessed the liability of the company and the liability position of the company is shown in the table below:

Table # 6.11
Shows the Liability Position of the Company up-to 1989

(Tk. in Lac)

Particulars	**Not overdue**	**Overdue**	**Total**
Principal	18.27	13.61	31.88
Interest	___	32.18	32.18
Compound interest	___	3.20	3.20
Miscellaneous	___	.38	.38
Total	**18.27**	**49.37**	**67.64**

Source: Credit file

10.3.1992: On that date, the credit officer inspected the company and his inspection report evident that the company was operating.

16.2.1999: Inspection report contained the following:

> (1) It is appearing that 95% construction works completed; (2) Machinery was not installed; (3) No gas connection; (4) Work pace slow. Only 18 motors out of 50 have installed. Tk.10.00 lac has disbursed but it is evident that only Tk.1.70 lac has utilized. (Source: Credit File)

07.06.1999

Inspection team report that,

> Sponsors completed some work, the cost of which is not less than Tk.10.00 lac. For completion of the rest of works it would be necessary to change the head of 2nd installment money from working capital head to construction head. Team also proposed that if firm failed to go into operation within one-month bank might take legal action against the sponsors. (Source: Credit File)

6.2.11 Feasibility Study Report for Rehabilitation Program: On application of borrowers, the bank sent a team to inspect the company and to submit a feasibility report. The team forecasted the earning and profitability of the company and it is given in the table below:

Table # 6.12
Shows the Earning Forecast of the Company

Particulars	1st year	2nd year	3rd year	4th year
Gross Profit to Sales	14%	15%	15%	15%
Net Profit to Sales	2%	4%	4%	5%
Return on Equity	29%	38%	39%	39%
Debt Repayment Ratio	1.06	1.30	1.44	.99
If payment schedule increase by 61/2 years the ratio will be	1.49	1.89	1.96	1.22

Source: Credit file

6.2.12 Change the factory site and the head office of the company: At fist, borrowers planned to set-up the factory at Naogaon, Rajshahi and the head office at Sukrabad, Dhaka. On 6.12.82, the bank's head office informed its Rajshahi branch that company changed its factory site from Naogaon, Rajshahi to Shibpur, Shatahar, Naogaon and the head office from Sukrabad, Dhaka to hotel Purbarag, Dilkusha Commercial Area, Dhaka. After the bank approved rehabilitation program in 1996, borrowers informed the bank that factory was transferred to Dhaka Export Processing Zone (DEPZ) and they renamed the company as M/S S. Composite Textile Mills Ltd. without permission of the bank. Later on, file showed that head office of the company was located at the premises of managing director rented house at Dhanmondi, Dhaka.

6.2.13 Change the Management

Management board of the company consisted of three members: namely (1) A. R. Sidiqque, (2) A. K. Sidiqque, and (3) A. H. Sidiqque. The company's management was changed in 1991 and the names of the board of directors were: (1) A. R. Sidiqque, (2) B. Kohinoor and (3) A. H. M. Kamal. No formal or informal application and approval were found in the file regarding change of the management. Later on, it was found in the file on 31.12.1994 that directors of the company were: (1) A. R. Sidiqque; (2) B. Kohinoor; (3) A. H. M. Kamal; (4) Dr. A.F.M. A. Hosain; and (5) H. A. Sidiqque.

6.2.14 Documentation

In 1981, the bank created first charge against company's factory land, building, machinery, and land and building of the main sponsor. No other security from other sponsor directors were sought and given. After the factory transferred to DEPZ, BEPZA created the first charge against factory land, building and machinery. The bank several times requested BEPZA for permission to create pro-rata charges. BEPZA gave permission to create a pari-passu[†] charge. But the credit officer failed to create any charge against any assets. The bank's legal adviser in this connection commented on 31.03.2002 that,

> BEPZA has the first charge; bank has no authority to take any legal action against BEPZA. BEPZA has the right to take over the company. After take over and sale the company, the proceeds should be used to meet their claim first if any thing left then it should be available for bank. (*Source*: Credit file)

6.2.15 Recovery of Loan

Borrowers paid Tk.1.50 lac and the bank adjusted Tk.4.20 lac from their various deposit accounts.

6.2.16 Handling Problem Loan

After become nonperforming loan, the bank several times took the following measures to handle it:

(1) Bank board in their 156th meeting held on 24.01.1990 waived 100% compound interest of Tk.3.20 lac and 50% of simple interest of Tk.32.18 lac, total Tk.19.29 lac. Board also rescheduled overdue and non-overdue interest and principal amounted to Tk.34.93 lac.

[†] This means that on failure of meeting the commitment by obligor, first party will be entitled to sale the mortgaged property and sale proceeds will be used to meet their claim first and anything left to be used to meet the second party claims.

(2) On 28.12.1992 and 19.01.1993, the bank's board of directors in their 201^{st} meeting waived100% compound interest of Tk.1.76 lac. The board also waived 50% simple interest, and interest during construction of Tk.16.11 lac and transferred Tk.16.12 lac to an interest free block account.

(3) Bank board in their 236th meeting held on 23.10.1995 waived 75% compound interest of Tk.15.52 lac and transferred Tk.5.18 to interest free block account.

4) Legal action: On 06.01.2001, the managing director of the bank commented in file note that,

> It will be good to call back the credit.

He advised the credit officer to take the consent of the bank's legal advisor regarding processing of legal actions and directed them to give consent regarding its cost effectiveness. On 23.03.2002, the bank's board in their 374th meeting decided to file a case against borrowers under the Bankruptcy Act. Later, on 04.02.2003 the credit officer filed a case under the Bankruptcy Act. On 21.09.2003, the court gave decree in favor of the bank. The court declared borrowers bankrupt on 07.04.2004 and appointed a liquidator to realize the money by selling borrowers assets and to pay off their liabilities.

5) Write off loan account: The bank's board of directors in their 449th meeting held on 16.01.05 decided to write off Tk.2, 75, 54,302. After adjusted borrowers various deposit of Tk.4, 19,718 the bank wrote off Tk.2,71, 34,314 as bad and loss. The bank also wrote off its equity support of Tk.20.00 lac after getting permission from the Bangladesh Bank on May 2005.

6.2.17 Analysis and Findings

Case study findings are presented here typologically. By analyzing the above case, the study found the followings:

6.2.17.1 Credit Policy

It is found in the case study that at the time of granting loan the bank had no written credit policy. The credit officer informed the researcher that it was a policy lending. The loan sanctioned under equitable, balance growth and development policy of the then government.

6.2.17.2 Credit Investigation

As part of credit investigation, the credit officer paid visits of the company's factory land and assessed its value. It is found in the inspection reports that purchase price of factory land in the year 1980 was Tk.5000.00 per decimal but he assessed it at Tk.12000.00 per khata in the year 1981. The credit officer made no attempts to investigate the value of the personal land of sponsors, their existing businesses, business performance and credit reputation. Borrowers' bankers' opinions are found in the file where bankers opined that borrowers are doing successful business with them and they have no liability to the banks. Borrowers attached these bankers' opinions to the loan application form, From this it is clear that these opinions are collected and submitted by borrowers themselves. The credit officer made no investigation regarding these issues. As a result, later it is found in the file that Janata Bank Naogaon branch filed a case against A.R. Sidiqque for his overdue loan and court gave decree against him. It is found in the file that company had not sizing, dying and finishing facilities. But in feasibility report the credit officer reported that

> The ultimate consumer of the product will be the local people and readymade garments.

The credit officer failed to confirm that without having sizing, dying and finishing facilities, how borrowers will be able to sale their products to ultimate consumer. With the planned capacity, the factory was able to produce gray cloth only. If they avail the sizing, dying and finishing facilities from other companies then the costing and profitability position of the company would be different from the forecasted one. The credit officer also failed to take any attempts to investigate and to make sure about the consumers of the products. It is found in the file that A.R.Sidiqque and A.K. Sidiqque paid income tax Tk.800.00 for the assessment year 1978-79, 79-80, and 80-81. The credit officer failed to make any investigation from his part to verify, how the income tax payment of two persons were same over the years though feasibility report shows different income from year to year and also different income from person to person? The credit officer had the opportunity to verify the actual income tax payment and actual performance from income tax offices to judge honesty and profitability of the borrowers existing business. The credit officer did not collected opinions of the borrowers' customers, competitors and creditors to judge their credibility and payment behavior.

6.2.17.6 Documentation

It is found in the file that, bank created a charge against the factory land, building machineries and the land and building of the main sponsor when the company was located at Naogaon. No other security from other sponsors was sought and given. When the company transferred to DEPZ, BEPZA authority created first charge against factory land, building and machinery. After repeated request from the bank to the BEPZA to create pro-rata charges, BEPZA gave permission to the bank to create pari-passu charge. But the credit officer of the bank did not create any charges. In this regards the bank's legal adviser commented on 31.03.2002 that,

> BEPZA is the first charge holder; bank has no authority to take any legal action against BEPZA. BEPZA has the right to take over the company. After taking over the company and sale it, the proceeds should be used to meet their claim first, if any thing left then it should be available for bank.

It is found that the bank only created the charge against main sponsor assets and did not create any charge against the assets of other borrowers. The bank also did not take sponsors personal guarantee. It is believed by the researcher that if the credit officer was able to create the charge against borrowers' personal assets and to take borrowers personal guarantee then the bank would be in a position to recover the loan by selling mortgage assets and personal assets of borrowers.

6.2.17.7 Monitoring and Review

During 1984 to 1999 the credit officer inspected the company 8 (eight) times. In inspection reports the credit officer always commented on construction of building, installation of machinery and work progress of the company. Review of the company's financial performances was not available in the inspection reports. It is found in the file that after repeated reminders borrowers submitted audited financial statements of the company. It is clear from company's provisional financial statements at year end 1989 that net loss was Tk.13.44 lac, and accumulated losses were Tk.41.76 lac. Despite of these huge losses, the bank approved rehabilitation program of the company. The credit officer failed to monitor and review regularly and truly the operational performances of the company, and to avoid further investment and losses. It is necessary to monitor and grade the borrowers' performance regularly. The study believes that the credit officer were not able to assess the operational results and prospect of the company timely, regularly and truly. The credit officer also failed to detect the signs of problem loan and handling it.

6.2.17.3 Credit Analysis

It is found in the file that, in the loan application forms borrowers declared that A.R. Sidiqque was the owner of a flour mill and a stationery shop. His total investment was Tk.3.50 lac with an annual turnover of Tk.1.10 lac. But in feasibility study report, the credit officer wrote it Tk.3.05 lac and Tk.0.96 lac respectively In the same fashion, A.K. Sidiqque the owner of a rice husking mill and a first class contractor declared that his investment amounted to Tk.4.50 lac with an annul turnover of Tk.0.40 lac. But in the feasibility report the credit officer mentioned these as Tk.2.93 lac and Tk.0.59 lac respectively. It is also found in the loan application forms that borrower A.R. Sidiqque declared that he had no liability but later in the feasibility report it is found that he a had liability of Tk.0.11 lac in the year 1980-81. Net profit to equity of A.R. Sidiqque's existing business was calculated by the credit officer as 6%, 6% and 6.55% for the financial year 1978-79, 79-80, and 80-81 respectively. For A.K. Sidiqque it was 3% for all the three financial years. The credit officer's comment regarding the profitability was

> The operation results and financial position appear to be satisfactory.

Now the question is how the net profit to equity 3% and 6% appeared satisfactory to the credit officer? If borrowers could earn at the same rate from their investments then how they would be able to repay the bank loan bearing 15% interest rate?

6.2.17.4 Equity Support

In the credit appraisal report, the credit officer commented that borrowers would be able to support their equity of Tk.25.19 lac from their past savings and earnings from existing businesses. But their existing businesses net income levels and total net worth calculations showed that their means were not adequate to support the equity. If we think it alternatively, they could support their equity by selling all of their immovable property and then question would be raised how they would support the collateral security of the bank? The study believes that either the credit officer mistaken in calculating borrowers' ability or they intentionally committed this.

6.2.17.5 Demand and Supply Gap Calculation

In forecasting demand, supply and demand supply gap, the credit officer used extrapolation method but they did not mention the sources of data they used in calculating these.

6.2.17.6 Documentation

It is found in the file that, bank created a charge against the factory land, building machineries and the land and building of the main sponsor when the company was located at Naogaon. No other security from other sponsors was sought and given. When the company transferred to DEPZ, BEPZA authority created first charge against factory land, building and machinery. After repeated request from the bank to the BEPZA to create pro-rata charges, BEPZA gave permission to the bank to create pari-passu charge. But the credit officer of the bank did not create any charges. In this regards the bank's legal adviser commented on 31.03.2002 that,

> BEPZA is the first charge holder; bank has no authority to take any legal action against BEPZA. BEPZA has the right to take over the company. After taking over the company and sale it, the proceeds should be used to meet their claim first, if any thing left then it should be available for bank.

It is found that the bank only created the charge against main sponsor assets and did not create any charge against the assets of other borrowers. The bank also did not take sponsors personal guarantee. It is believed by the researcher that if the credit officer was able to create the charge against borrowers' personal assets and to take borrowers personal guarantee then the bank would be in a position to recover the loan by selling mortgage assets and personal assets of borrowers.

6.2.17.7 Monitoring and Review

During 1984 to 1999 the credit officer inspected the company 8 (eight) times. In inspection reports the credit officer always commented on construction of building, installation of machinery and work progress of the company. Review of the company's financial performances was not available in the inspection reports. It is found in the file that after repeated reminders borrowers submitted audited financial statements of the company. It is clear from company's provisional financial statements at year end 1989 that net loss was Tk.13.44 lac, and accumulated losses were Tk.41.76 lac. Despite of these huge losses, the bank approved rehabilitation program of the company. The credit officer failed to monitor and review regularly and truly the operational performances of the company, and to avoid further investment and losses. It is necessary to monitor and grade the borrowers' performance regularly. The study believes that the credit officer were not able to assess the operational results and prospect of the company timely, regularly and truly. The credit officer also failed to detect the signs of problem loan and handling it.

6.2.17.8 Handling Problem Loan

It is evident from the case study that, the company become sick due to inadequate capacity installation; shortage of working capital, installation of low grade local machinery, wrong assessment of market, increased cost of finished goods and inability to compete with big firms having advantage of economics of large scale production. It is also clear from the credit officer's inspection reports that sponsors had no intention to invest fund from their part. After the company becomes sick, the bank as a technique of handling problem loan, to safeguard its fund and to ensure safe returns of its investment comes forward and approved rehabilitation program and invested further huge amount. During the loan period, the bank management waived simple and compound interest, rescheduled the loan, changed the financing head, and provided equity support to make the company viable. But borrowers' intention was not good. They were engaged in black merchandizing[†]. In spite of allowing the borrowers various facilities, they failed to go in to commercial operation. The bank sanctioned loan of Tk.160.77 lac and after 18 (Eighteen) years of loan sanction, on 30.06.2000, loan account outstanding balance stood at Tk.275.54 lac. After becoming the company sick and find a thin chance to recover the loan, the bank board in their 449th meeting held on 16.01.05 decided to write off the loan account after adjusting borrowers various deposit amount of Tk.4,19,718. Out of total claim of Tk.2, 75, 54,302, the bank wrote off Tk.2, 71, 34,314 as bad and loss on May 2005, and the bank's equity support of Tk.20.00 lac after getting permission from Bangladesh Bank. The study believes that if the credit officer was able to take timely actions to call back the loan, the bank could avoid serious losses.

[†] Black merchandizing means engaging in over invoicing of machinery

6.3 CASE STUDY 2

Name of the company : E. Chemical Complex Ltd.

Name of Financing Institution : Bangladesh Shilpa Bank

6.3.1 Abstract

Proper investigation, accurate credit analysis, regular monitoring the borrowers' performance and grading the loan, efficient handling of problem loan and timely recovery of it are essential for good credit management. This case is characterized by poor credit investigation, cursory or inadequate credit analysis, lack of using authentic data, poor monitoring and reviewing, inadequate use of problem loan handling techniques and delay in taking decision to call back the loan. Among the sponsor directors, main sponsor had some experience in this line of business. The credit officer failed to collect adequate and accurate information by investigation to prepare feasibility study report. In preparing feasibility study report, the credit officer made poor and cursory analysis. Information used in preparing feasibility study was inconsistent. The credit officer failed to monitor the borrower's performance and grading the loan regularly. It is found in the file that borrowers were not interested to procure required machineries and a lot of tale found behind the procurement of machineries. After borrowers had failed to go into commercial operation, on recommendation of a politician the bank approved rehabilitation program and further invested huge amount. It is believed that if the credit officer was able to take action timely, the bank could escape itself from huge losses.

6.3.2 History of the Company

E. Chemical Complex Ltd. was an import substitute chemical product-manufacturing unit situated at Sarulia, Narayangonj. Owners of the company applied to the bank for a term loan of Tk.91.20 lac on 24.03.1987. Estimated cost of the project was Tk.188.90 lac and the capital structure of the company consisted of: Bank foreign currency loan Tk.71.20 lac; Local currency loan Tk.20.00 lac; Custom debenture Tk.7.15 lac; Deferred payment of interest due Tk.7.98 lac; Directors loan Tk.2.57 lac; Sponsors equity Tk.40.00 lac and Public issue Tk.40.00 lac. Management of the company was vested on five-member management board. The credit officer started feasibility study on 18.07.1987 and completed on 07.04.1988. The bank's board of directors approved the loan proposal on 18.09.1988. Out of the sanctioned loan, the bank disbursed Tk.70.80 lac. A lot of irregularities are found in the file regarding procurement of machinery. Borrowers faced various problems in procuring machineries. They took several initiatives to go into commercial operation but failed. After borrowers failed to go into commercial operation and to repay the loan, the bank on 30.11.1998 filed a case against borrowers under the Artha Rin Adalat. On filing the case, borrowers applied to the bank to give them another opportunity to go into commercial operation and presented an action plan. On 20.06.2000, the bank approved this action plan and withdrew the case on 06.09.2001. The bank disbursed some installments to procure and to install machinery but borrowers again failed to do according to loan agreement and to go into commercial operation. On 30.06.2004 the bank's total claim stood at Tk.131.33 lac. The bank served a legal notice to borrowers for its claim on 30.06.2004. After receiving the legal notice, borrowers applied to the bank to waive the interest and for rescheduling the loan. The bank's board in their 448th meeting held on 29.01.2005 decided to waive simple interest and penal interest amounted to Tk.53.43 lac and rescheduled the rest. According to rescheduling, borrowers should have to paid Tk.71.90 lac by 8(eight) equal interest free installments and first installment was fallen due on 30.04.2005. Borrowers again failed to deposit first installment up to 15.07.05 and further applied to the bank, to defer first installment due date from 30.04.2005 to 30.04.2006. No decision yet to make but the bank. In the mean time, the bank gave the borrowers permission to sale the mortgaged property to repay the loan. But the credit officer informed the researcher that borrowers now are not in a position to sale the property because the property now is in the possession of some local miscreants.

6.3.3 Directors of the Company

M.A.Talib: M.A.Talib, the managing director of the company an undergraduate, owner of a chemical process unit situated at Narayngonj. He is 34 years old, has traveled India for business purposes. As per application form, his total investment in existing business is Tk.48.65 lac with an annual turnover of Tk.32.70 lac. His total net worth was amounted to Tk.192.59 lac. He paid income tax of Tk.200.00, Tk.300.00, and Tk.500.00 respectively in the assessment years 1984-85, 1985-86 and 1986-87.

Mrs. M. Bibi: Mrs. M. Bibi, a director of the company, is wife of M.A.Talib, She is below S.S.C. a housewife, 28 years old and owner of 5% sponsors paid up share capital of the company.

K.L.Ahamed: K.L.Ahamed, a director of the company, is an undergraduate. He is 30 years old. No information about his assets and liabilities is found in the file.

A.A. Patwary: A.A. Patwary is a science graduate, a director of the company. He, a 35 year old person, has been working in a private glass factory for long time, widely traveled India, Pakistan, and Thailand. He paid income tax Tk.100.00, Tk.1037.00 and Tk.1500.00 for the assessment year 1985--86, 1986-87, and 1987-88 respectively. He owns a private land and declared that the value of this land would be Tk.12.50 lac.

N.N. Siddique: Siddique is the technical director of the company is a M.Sc., a 38 years old man, has been working as teacher of a private college for 15 years and holder of 2.5% sponsors paid up share capital. In loan application form he declared that his employer (College authority) is paying his income tax.

6.3.4 Credit Investigation

Credit officers inspected and assessed the value of company's factory land but he did not inspect the land of the main sponsor. They assessed the value of the main sponsor personal land, which was mortgaged to another bank. The loan application forms were attached with borrowers' bankers' opinions where their bankers opined that directors had no liability to any bank and they maintained their savings account satisfactorily with them. In application form, key sponsor also declared that value of his private land would be Tk.40, 000.00 per decimal. The credit officer valued this private land, factory land, and paddy land Tk.24000.00 (approx.) per decimal. He also assessed the land of another director at Tk.6.75 lac though this director declared the value of that land at Tk.12.50 lac.

6.3.5 Feasibility Report

Feasibility study contained appraisal of the management, marketing, financial ability, sector performance, etc. The following subsections present each appraisal separately.

6.3.5.1 Feasibility Study Schedule

Feasibility study started on 18.07.1987, It completed and submitted to the loan committee on 07.04.1988.

6.3.5.2 Management Appraisal

Credit officer's comment about management was as:

> The key person is well experience in this line of business. All members of management team were young, educated with diversified experience.

6.3.5.3 Net worth of and profitability of Sponsor Directors and their existing businesses

Net worth and profitability of sponsor directors existing businesses are presented in the tables below:

Table # 6.13
Shows the net-worth of the sponsor directors

(Tk. in lac)

M.A.Talib	84.24
A.A. Patwary	6.75
Total	90.99
Liabilities	Nil
Total	**90.99**

Source: Credit file

Table # 6.14
Shows the Profitability of the Existing Business of M.A.Talib

Particulars	1984-85	1985-86	1986-87
Sales Revenue (Tk. in lac)	28.89	29.70	32.70
Net Operating Profit (Tk. in lac)	3.47	3.86	3.76
Gross Profit to Sales (%)	25	21	21
Net Operating Profit to Sales (%)	13	11	12
Return on Equity (%)	8	7	8

Source: Credit file

Table # 6.15
Shows the Financial Position of the Existing Business of M.A.Talib

(Tk. in Lac)

Particulars	Y E A R S		
	1984-85	1985-86	1986-87
Current Assets	3.62	6.72	9.93
Fixed Assets	39.13	38.88	38.72
Total Assets	42.73	45.60	48.69
Less Liabilities	Nil	Nil	Nil
Net Worth	**42.76**	**45.60**	**48.65**

Source: Credit file

6.3.5.4 Cost and Means of Finance of the project

The following table shows the cost and means of finance of the project

Table # 6.16
Shows the Cost and means of Finance of the project

(Tk. in lac)

Cost of the project		Means of Finance	
Foreign currency	71.20	Bank Foreign currency loan	71.20
Local currency	111.26	Bank local currency loan	20.00
Working capital	6.44	Custom debenture	7.15
		Deferred payment of interest due	7.98
		Directors loan	2.57
		Sponsors contribution	40.00
		Public issue	40.00
Total	**188.90**	**Total**	**188.90**

Source: Credit file

6.3.5.5 Debt Equity Ratio: Debt equity ratio was calculated as 58:42

6.3.5.6 Equity Support: How sponsors would support their equity capital is not stated in the feasibility report.

6.3.5.7 Economic Analysis

In economic analysis, the credit officer forecasted the demand, supply, demand supply gap, and analysis the sector performance. These are presented in the following subsections.

6.3.5.7.1 Demand forecasting

The credit officer forecasted five years demand of the company by using extrapolation method. He used import and local production data for forecasting this. The credit officer forecasted that demand for the year 1985-1986 will be 2944 metric tons and for the year 1987-1988, 5822 metric tons.

6.3.5.7.2 Demand Supply Gap

At the time of the feasibility study, one firm with 2850 metric tons annual production capacity was operating in Bangladesh. The credit officer assumed that if this unit will run with its 80% capacity, then demand supply gap will be 3542 metric tons in the year 1987-1988 and 4652 metric tons in the year 1991-1992.

6.3.5.7.3 Sector Performance

In the year 1987-1988, the bank's total loan portfolio was Tk.4871.70 lac. Out of this, the bank allotted Tk.229.95 lac in this sector. In that year, out of total recoverable loan of Tk.131.87 lac, the bank recovered Tk.16.32 lac up to July 1987. It is 12.38% of total recoverable amount. In the financial year 1986-1987, total recoverable amount was Tk.304.02 lac, and the bank recovered Tk.41.22 lac, which was 13.55% of total recoverable amount. The overall recoverable loan of the bank was Tk 4387.29 lac in the financial year 1986-1987. But the bank recovered Tk.658.85 lac only, which was 15.02% of total recoverable amount.

6.3.5.8 Cost Comparison

The credit officer estimated the landed cost of an item imported from China at Tk.6696.00 per metric ton. He also estimated the cost of goods sold of that item in Bangladesh at Tk.2250.00 and in this regards he commented that

> The price of this product will be 30% lower than import cost.

6.3.5.9 Cost of Goods Sold

In feasibility report the credit officer prepared a statement of cost of goods sold. This statement showed increasing trends of cost of good sold.

6.3.5.10 Financial Analysis

The table below shows the forecasted profitability of the company

Table # 6.17
Shows the forecasted profitability of the company

Particulars	1st year	2nd year	3^{rd} year	4th year
Capacity Utilization (%)	60	65	70	75
Gross Profit to Sales (%)	43	42	41	41
EBIT (%)	34	34	33	32
Return on Equity (%)	30	33	26	26
Return on Capital Employed (%)	17	20	19	21
DSCR(times)	2.32	2.78	2.87	2.04
Fixed assets coverage ratio(times)	1.82			
Financial rate of return (FRR in %)	29			
Economic rate of return (in %)	24			

Source: Credit file

6.3.5.11 Recommendation

The credit officer commented about the prospect of the company in this way

> The company is technically feasible, financially rewarding, and commercially and economically viable and this is considered suitable for financing.

6.3.6 Facility Sought by Borrowers, Bank Sanctioned, and Disbursed

The following table shows how much loan was sought by the borrowers, how much the bank was sanctioned, and how much was disbursed.

Table # 6.18
Shows the Facilities Sought by Borrowers, Bank Sanctioned and Disbursed

(Tk. in lac)

Nature of loan	Borrowers Applied		Bank Sanctioned		Disbursed	
	Date	Amount	Date	Amount	Date	Amount
F/C Loan	24.3.87	71.20	18.9.88	71.20	26.11.91	31.71
L/C Loan	24.3.87	20.00	Do	20.00	-------	--------
IDCP	24.3.87	7.98				
Change of F/C loan to L/C loan		40.95	26.11.94	40.95		
Action plan	07.04.99	80.00	11.07.00	60.95	2.12.00	19.17
					13.9.01	19.17
Total		**220 .13**		**192.10**		**70.05**

Source: Credit file

6.3.7 Procurement of Machinery

In 1989, borrowers opened a letter of credit (L/C) equivalent to Indian Rupees (IRs) 33.10 lac to import machinery from India. After part shipment amounted to IRs.14.29 lac, the bank honored the L/C on 26.11.1991. After this part shipment, the supplier informed the buyer that they were unable to supply rest machinery within invoice price because of increase in the prices of machinery. On receiving this information, borrowers applied to the bank to change the supplier. But the bank declined to change the supplier and advised borrowers to make arrangement with the supplier to import the machinery at stated price. Borrowers requested the supplier and supplier supplied rest of the machinery. But borrowers informed the bank that they made no Pre Shipment Inspection (PSI) and requested the bank to make arrangement for post shipment inspection and the bank arranged a post shipment inspection. On inspection, it was found that machines were short supplied, obsolete, rusted and not properly packaged. Borrowers declined to accept the machines and requested the bank to black listed the supplying company and their local agent. Borrowers also requested the bank to revoke the L/C and to en-cash the PBG. Accordingly, the bank black listed the supplying company and their local agent, revoked L/C and en-cashed the PBG amounted to Tk.6.25 lac. On 24.12.1994, borrowers again opened a L/C to procure main machine from India. Supplier supplied the machine. But it was found in the post lending inspection that the machines were not supplied according to L/C specification. Borrowers declined to accept the machine and requested the bank to black list the supplying company and their local agent. Borrowers also requested the bank to revoke the L/C and en-cash the PBG. The bank black listed the supplying company and their local agent, revoked L/C and en-cashed the PBG amounted to Tk7.91 lac. After the bank approves the "Action Plan", a local agent was appointed by the bank to supply 16 classes' machinery, a main machine (Rotary Kelon) and to overhaul the existing machinery. On completion of installation of main machine and other machines, the credit officer paid visit to assess the work progress. On inspection, he found that installation was not made according to the bank's specification and the bank suspended the installment payments after payment of two installments.

6.3.8 Inspection Report

The credit officer several times paid visit to the company factory site and prepared inspection reports. The credit officer's inspection reports are presented here chronologically in the following subsections.

29.10.1992

After three years of the loan sanction, the credit officer inspected the company. It is found in the inspection report that, civil construction works were not satisfactory, work implementation pace was slow.

15.12.1993

It is found from the inspection report that machineries were stored in a teen shed, rusted and would be ineffective.

10.04.2002

Inspection report contained the credit officer's comment that,

> Borrowers are failed to meet their commitment and to start the commercial operation of the company within the stipulated time.

18.06.2004

Borrowers informed the bank that company was prepared to go into commercial operation. Indian engineers were in the factory site at that time. On hearing this, the credit officer inspected the company. After inspection, the credit officer reported that, no foreign experts were seen in the company site. Factory was running and producing some calcium carbonates which were not suitable for industrial use.

6.3.9 Recovery of Loan

Borrowers deposited Tk.6.00 lac as down payment of rescheduling the loan. The bank adjusted PBG of Tk.14.16 lac and L/C margin of U$.15470.

6.3.10 Handling Problem Loan

After default the loan, the credit officer took the following measures for handling the bad loan:

1) Borrowers failed to install machinery according to the specification of the company's project profile and to start its commercial operation. After receiving several reminders to repay the loan, borrowers on 04.08.1997 applied to the bank to waive simple and compound interest and for rescheduling the rest. They proposed that they are interested to pay the loan by quarterly installments within five years after adjusting their various deposits, PBG of Tk.6.25 lac and L/C margin of U$ 15,470. The bank's Management Advisory Committee (MAC) rescheduled the loan and allowed the borrowers to repay the loan by quarterly installment within two years.

2) Even after rescheduling the loan, borrowers failed to pay the installments and the bank filed a case against them. After filing of the case, borrowers submitted an action plan on 07.04.1999 and on 20.06.2000 to the bank and sought permission to start its installation work again. This application was recommended by a state minister. The plan approved on 11.07.2000.

3) After failure to go into commercial operation and to repay the loan, the bank served a legal notice on the borrowers on 30.06.2004 to repay the loan. On receiving legal notice, borrowers deposited Tk.6.00 lac as down payment and applied to the bank to waive interest and for rescheduling the loan account. The bank's board of directors in their 448th meeting held on 20.01.2005 resolved that:

(a) Down payment Tk.6.00 lac should be adjusted against interest;
(b) Long term loan Tk70.84 lac and other charge Tk1.06 lac total Tk.71.90 lac should be payable by 8(eight) equal interest free installment within two years. The first installment would fall due on 30.04.2005; and
(c) Total interest Tk.53.43 lac should be transferred to interest free block account and it should be waived after depositing all installments.

4) Legal Action: After 7 years of loan sanction, on 13.11.1995, the bank management decided to take legal action against borrowers and on 30.11.1998 filed a case under the Artha Rin Adalat 2. Later the case was transferred to District Judge Court. After approval of the "Action Plan" the bank withdrew the case on 06.09.2001. Again on 30.06.2004 the bank served a legal notice on borrowers.

6.3.11 Analysis and Findings

In these following subsections the study presents findings of the case.

6.3.11.1 Credit Policy

At the time of the feasibility study and approval of loan, the bank did not have any written credit policy. Feasibility study report contained the information about the bank's sector allocation (Tk.4871.70 lac), sanction (Tk.2299.50 lac) and portfolio performance.

6.3.11.2 Credit Investigation

The credit officer paid visit to the factory land, assessed the value of the property of main sponsor and collected borrowers' bankers' opinions. In the application forms, key borrower declared that he had no liabilities. But later it was found in the file that main sponsor had a liability of Tk.1.05 lac to Bangladesh Krishi Bank (BKB). The credit officer was not sought any explanation to the main sponsor why he concealed the information. The credit officer did not make any attempt to collect opinions of creditors, customers, competitors and tax authority to asses the creditworthiness of the borrowers. He also failed to investigate the prices of the machineries, technology, and to asses the capability of the borrowers.

6.3.11.3 Credit Analysis

Lots of anomalies are observed in credit analysis and these anomalies are presented in the following subsections:

1) Net worth Calculation: It is mandatory that in calculating net worth of borrowers, all assets and liabilities of borrowers should be taken into consideration. But it is found in the case study that in calculating main sponsor's[†] net worth, the credit officer only considered the value of his private land. The assets and liabilities of the main sponsor's existing business were not considered. Lots of wrong calculations are found in the feasibility study. For example, total assets of the main sponsor's were Tk.42.73 lac. But the credit officer calculated the net worth at Tk.42.76 lac.

[†] Terms Sponsors and Borrowers are used synonymously.

2) Income Tax: Feasibility study showed that key sponsor paid income tax Tk.200.00, Tk.300.00, and Tk.500.00 for the assessment year 1984-85, 1985-86, and 1986-87 respectively, though his existing business income statements showed the net income of Tk.3.47 lac, Tk.3.86 lac, and Tk.3.76. The main sponsor also owned some paddy land and industrial land worth Tk.143.94 lac. Inconsistencies are evident in the presentation of figures in the feasibility report.

3) Working Capital: Feasibility study contains information that the company would import major raw materials. But the credit officer assessed working capital needs of Tk.6.44 lac. The researcher believes that working capital of Tk.6.44 lac was insufficient to support a cost of goods sold of Tk.54.44 and for meeting other expenses.

4) Demand: Demand was estimated by using data compiled by BSB and M/S Talukder Chemical Ltd. It is found in the file that total forecasted consumption was 1113 M.T in the year 1980, 3379 M.T in the year1984, 6943 M.T in the year 1985, and 2944 M.T. in the year 1986. Demand was forecasted by using extrapolation method.

5) Cost Comparison: In feasibility study it is found that landed cost of the imported calcium carbonate was Tk.6696.00 per M.T. and the credit officer estimated the cost of good sold Tk.2250.00 per M.T. The credit officer commented that the price of the product might be 30% lower than landed cost of calcium carbonate imported from China. But Tk.2250.00 is not 30% lower than Tk.6696.00.

6) Cost of Goods Sold: It is found in the feasibility study report that trends of cost of goods sold per M.T. is increasing with increasing capacity utilization. But it is practice that cost of goods sold will decrease with increasing capacity utilization (assume that other cost remain same), due to distribution of fixed cost among larger production units.

7) Cash flow Statement: Cash flow statement shows that Tk.40.00 lac would come from sponsors equity capital and Tk.40.00 lac from bridge financing. But means of finance shows that Tk.40.00 lac would be financed by sponsors equity capital and Tk.40.00 lac from public issue. The company's four years cash flow statements did not shows any inflow either from public issue or from equity capital.

8) Sector Performance

Feasibility study showed that in 1978-88, the bank's total loan portfolio was Tk.4871.70 lac and the bank allocated Tk.229.95 lac in this sector. Up to July 1987 bank's total recoverable loan stood at Tk.131.87 lac, out of which, the bank recovered Tk.16.32 lac which was 12.38% of total recoverable amount. In the financial year 1986-87 total recoverable amount stood at Tk.304.02 lac, and the bank recovered Tk.41.22 lac, which was 13.55% of total recoverable amount. The overall recoverable loan in the financial year 1986-87 was Tk 4387.29 lac, but the bank recovered only Tk.658.85 lac which was 15.02% of total recoverable amount. The credit officer made no comments regarding the sector performance. It is clear from the study that sector recovery performance was not good. This poor performance may be the result of poor performance of the sector, or unwillingness of the borrowers' to repay the loan. The credit officer made no investigation and analysis to uncover the causes of poor performance of this sector.

9) Equity Support: The credit officer made no comments about how borrowers would provide their equity capital of Tk.40.00 lac. Feasibility study showed that out of five directors, four hold 17.5% shares of the company. The rest 82.5% would be held by the key sponsor. Net worth calculation of the key sponsor did not show any bank deposit. So, if he want to provide his equity, he must have been compelled to sale his existing profitable business or to sale his immovable property. If he sold the immovable property, how would he fulfill the collateral security requirement of the bank?

6.3.11.4 Monitoring and Review

From 1989 to 2004 i.e. during a period of fifteen years, the credit officer inspected the company only four times. The researcher believes that if the credit officer could monitor the company's work in progress frequently and assessed the viability of the company honestly and timely, the bank could easily avoid further investment and escape from huge losses.

6.3.11.5 Handling Problem Loan

The company failed to go into commercial operation due to delay in procurement of machinery, completion of construction of factory building and installation of obsolete and rusted machinery. It is found in the file that the supplier of machineries claimed that the obsolete and short machinery's were supplied according to the dark side agreement of merchandising[†]. It indicates that sponsors were not honest in their dealings. After borrower's failed to procure machinery, to go into commercial operation and to fulfill the bank's conditions, the bank on recommendation of a state minister again approved a key plan and disbursed additional loan. The bank expected that company would go into commercial operation and borrowers would be able to repay the loan timely. But borrowers again failed to fulfill the conditions of the bank, and to go into commercial operation. The bank sanctioned the term loan of Tk.71.90 lac and after 15 (Fifteen) years of its sanction on 30.06.2004 total outstanding amount stood at Tk.131.33 lac. The bank's board in their 448th meeting held on 29.01.05 decided to waive interest and other charges of Tk.53.43 lac and reschedule Tk.71.90 lac after adjustment of down payment of Tk.6.00 lac. The bank's board decided that rescheduled loan should have to be paid by 8(eight) equal interest free installments within two years. The first installment fell due on 30.04.2005. Borrowers have not yet deposit any installment.

[†] By dark side agreement of merchandising they mean over invoicing of imported machinery

6.4 CASE STUDY 3

Name of the company : M/S S. Textile Mills Ltd.

Name of the Financing Institution : Bangladesh Shilpa Bank

6.4.1 History of the Company

M/S S. Textile Ltd., a public limited company is situated at Tongi industrial area. The company was established to manufacture canvas base articles and denim cloth. After estimating the cost of the project of Tk.330.98 lac, owners of the company applied to the bank for a long-term loan of Tk.231.68 lac. Credit officers prepared a feasibility study report. At the time of appraisal, credit officers observed that owners of the company underestimated the cost. They revised the estimated cost at Tk.357.90 lac which included working capital need of Tk.11.89 lac. After estimation by credit officers, owners again applied to the bank for Tk.207.72 lac foreign currency loan and Tk.40.00 lac local currency loan totaling Tk.247.72 lac. The bank sanctioned the loan on 30.07.1980. Management of the company was vested on three members' management board where all were the family members. The company started its commercial operation on February 1984 and suspended in the year 1990. Borrowers failed to repay the loan and the bank filed several cases under Artha Rin Adalat. Borrowers also filed four writs against insurance company and the bank on 05.08.1991. Since 02.06.1992, the bank has not been charging any simple and compound interest on the loan account. Borrowers on 07.03.2003 applied to the bank by seeking waiver of interest (simple and compound) and for rescheduling the loan account. The bank's board in their 404th meeting held on 18.06.2003 waived interest of Tk.454.65 lac, and reschedule Tk.69.00 lac. When rescheduled the loan, the board imposed condition that loan should have to be paid by 8(eight) quarterly interest free equal installments within two years. The installment size was fixed at Tk.8.63 lac. The first installment fell due on 30.09.2003. Up to 31.12.2004, overdue installments stood at Tk.68.01 lac. Borrowers deposited Tk.30.28 lac upto15.07.2005. They again applied for rescheduling the unpaid amount of Tk.38.72 lac. In the application forms, borrowers promised to pay the unpaid amount by 18(eighteen) equal quarterly installments. The board has not yet made any decision about rescheduling. In the mean time, the bank's board in their 456th meeting held on 01.06.2005 decided to write off Tk.500.25 lac as bad and loss.

6.4.2 Directors of the Company

A. Rahman: A. Rahman, the chairman of the company, an M.A., owner of S. Tex Waterproof Works, a textile processing industry. He is experienced in this line of business, has traveled widely across world. Assets and liabilities position and the performance of the existing business of A. Rahman are not found in the file.

F.Rahman: F.Rahman, the Managing Director of the company, an honors graduate, has been working as a factory manager of S. Tex Waterproof Works for long time. Assets and liabilities position and payment of income tax of F.Rahman are not found in the file and in the feasibility study report.

J. Akhteri: J. Akhteri, the director of the company, is wife of A.Rahman, a housewife. Assets and liabilities position and payment of income tax of J. Akhteri are not found in the file or in the feasibility study report.

6.4.3 Feasibility Study

Aspects of feasibility study report are presented in the subsections below.

6.4.3.1 Study Schedule: Feasibility study schedule is not found in the report.

6.4.3.2 Credit Investigation: Evidence regarding credit investigation is not found in the feasibility study report.

6.4.3.3 Credit Analysis: By appraising management ability the credit officer commented that,

> All the directors are resourceful, educated, and well experienced in this line of business.

6.4.3.4 Financing need and means of finance of the company: The company's financing needs and means of finance are presented in the table below.

Table # 6.19
Shows the Financing need and Means of Finance of the Company

Financing need of the Company		Means of Finance	
Particulars	**Tk. in Lac**	**Particulars**	**Tk. in Lac**
Fixed cost	347.42	Bank F/C loan	201.99
Working capital	11.89	Bank L/C loan	40.00
		Directors loan	7.32
		Total Debt	**249.31**
		Equity:	
		Public issue	40.00
		Sponsors equity	40.00
Total cost	**Tk.359.31 Lac**	**Total Debt and Equity**	**Tk.359.31 lac**

Source: Credit file

6.4.3.5 Equity Support: How sponsors will provide their equity from their part was not mentioned in the feasibility report.

6.4.3.6 Technical Analysis: In technical analysis, credit officers did the following analyses.

1) **Product Mix and production per year:** Product mix and production per year are presented in the table below:

Table # 6.20
Shows the Product Mix and production per year

Products No.	Product	Production per year(In yard)
1	Sail Cloth	12,320
2	Rain Coat	11,475
3	Tents	2,700
4	Medium Tarpaulin	55,350
5	Heavy Tarpaulin	1,05,975
6	Motor Hood	52,650
7	Misc. Canvass Stores	40,500
8	Conveyor Belting	16,875
9	Industrial Filter Cloth	49,350
10	Denim Cloth	2,56,500
Total		**6,03,695**

Source: Credit file

2) Technology: By analyzing technology the credit officer commented that

> The technology is already known in the country. The proposed product mix will not involve any difficulty and unknown technology in the manufacturing process. The product expected to face no problem in this regard.

6.4.3.7 Market Appraisal: In doing marketing analysis, the credit officer analyzed the following aspects:

1) Export Demand Queries: The following table shows the forecasted export demand of the product.

Table # 6.21
Shows the forecasted export demand of the product

Year	Canvas + Canvas product (In square yard)	Denim Cloth (In square yard)
1979	12,00,000	48,00,000
1980	19,44,000	85,60,000

Source: Credit file

Comment: The credit officer quoted the comments of representative of TCB and EPB. They commented that,

> Bangladesh could enter into the export market due to the comparative advantage of cheap labor and liberal government policy.

2) Local Demand for Canvas and Canvas Product: The following table shows the forecasted local demand for canvass and canvass products.

Table # 6.22
Shows the local demand for Canvas and Canvas Product

Year	1980-81	1981-82	1982-83	1983-84	1984-85
Demand(In million Yards)	3.30	4.13	5.16	6.45	8.06

Source: Department of Textile and GOB study in this sub-sector

1) **Denim Cloth Demand:** The credit officer in feasibility study forecasted the local demand of denim cloth. The forecasted demand is presented in the table below:

Table # 6.23
Shows the local demand for Denim Cloth

Year	1980-81	1981-82	1982-83	1983-84	1984-85
Demand(In million Yards)	.81*	.90	1.00	1.11	1.23

Source: Credit file

Note: *The credit officer forecasted computation by using SFYP per capita consumption and the growth rate

2) **Demand Supply Gap:** The following table shows the demand, supply and demand supply of the company products

Table # 6.24
Shows the demand, supply and demand supply of the company products

Year	**Canvas and its Product** (In Square Million Yards)			**Denim Cloth** (In Square Million Yards)		
	Demand	**Supply**	**Gap**	**Demand**	**Supply**	**Gap**
1980-81	3.30	1.51*	1.79	.81	N/A**	N/C***
1981-82	4.13	1.51	2.62	.90	N/A	N/C
1982-83	5.16	1.51	3.65	1.00	N/A	N/C
1983-84	6.45	1.51	4.94	1.11	N/A	N/C
1984-85	8.06	1.51	6.55	1.23	N/A	N/C

Source: Credit file

Note: *At present there are 16 canvas and canvas based articles manufacturing units in the country. At 100% capacity utilization they can produce1.51 million square yards with single shift
**Actual production statistics is not available
*** Not calculated

3) **Price Comparison:** Comparative import prices of the products and company's proposed price are presented in the table below.

Table #6.25

Shows the Comparative Prices of Canvas, Canvas based Articles and Denim Cloth

Items	Unit	C&F price*	Ex-factory price	Proposed price
Sail Cloth	Yards	34	NM**	30
Rain Coat	Pcs.	525	350	300
Tents	Pcs.	4000	3200	3000
Medium Tarpaulin	Yd.	NI***	60	58
Heavy Tarpaulin	Yd.	NI	65	60
Motor Hood	Yd.	NI	62	58
Misc. Canvass Stores	Yd.	NI		
Conveyor Belting	Yd.	62	62	60
Industrial Filter Cloth	Yd.	62	64	60
Denim Cloth	Yd.	29	NM	27

Source : Credit file

Note * All prices are in BD Tk.
** NM: Not Marketed
*** Not Imported

Comment: In price comparison section the credit officer commented that

> The product will be in better position in local, as well as foreign market due to cost competitiveness and for better quality. The proposed prices are expected to be competitive in the export markets because they are substantially lower than the C&F prices.

6.4.3.8 Financial Analysis: In financial analysis, credit officers analyzed the following aspects.

1) **Earning and Profitability Forecast of the Company:** The following table shows the Forecasted earning and profitability of the company.

Table # 6.26

Shows the Earning and Profitability Forecast of the Company

(Tk.in Lac)

Particulars	1st year	2and year	3rd year	4th year
Sales	22103	26014	28104	30014
Gross Profit	6527	7588	8215	8802
Operating Profit	1547	2746	3624	4489
Other Income	1269	1523	1648	1759
Profit Before Bond Purchase	2816	4249	5272	6248
Net Profit after Bond Purchased @ 30%	1972	2989	3690	4374
Gross Profit to Sales (%)	30	29	29	29
Net Profit to Sales (%)	25	26	26	26
Return on Equity (%)	48	57	40	34
Return on Capital (%)	15	17	17	17
Debt Service Coverage Ratio(times)	1.81	1.66	1.83	2.03

Source: Credit file

2) Break Even Point[†]**:** The credit officer forecasted that the company expected to reach in break even at 44% of the rated capacity and at Tk.20.05 million sales levels.

3) Financial Rate of Return (FRR): By analyzing sensitivity, the credit officer forecasted the following financial rate of returns

(a) 27% (on schedule operation), (b) 24% (with one year slippage), (c) 24% (with 20% increase in the price of raw materials), (d) 24% (with 20% decrease in selling price)

6.4.3.9 Credit officer's comments: In feasibility study report finally the credit officer commented that

> The scheme is considered technically feasible, financially rewarding and economically viable. Thus may be considered suitable for bank financing.

6.4.4 Facilities Sought by Borrowers, Bank Sanctioned and disbursed: The following table shows how much loan borrowers sought, how much bank gave sanction and how much disbursed.

Table # 6.27
Shows how much loan borrowers were sought, how much the bank was sanctioned and how much was disbursed

(Tk.in Lac)

Nature of loan	Borrowers Applied		Bank Sanction		Disbursement	
	Date	Amount	Date	Amount	Date	Amount
F/C		207.72	30.07.80	201.99	Up to 5.01.83	177.10
L/C		40.00	28.11.80	40.00	Up to 7.9.83	12.32
Working Capital		40.00	3.6.89	40.00	10.6.89	40.00
Bridge financing				1.87	12.10.83	1.87
Working Capital		50.00	10.6.89	50.00	14.9.91	50.00
Total		**337.72**		**333.86**		**281.29**

Source: Credit file

6.4.5 Handling Problem Loan: For handling problem loan, the credit officer applied following techniques:

[†] Break even point is the point of no profit no loss

6.4.5.1 Rescheduling and Waiver of Interest

1) After default the loan, the bank filed two cases against borrowers and their insurance company (Guarantor of working capital loan) on 27.02.1992 and on May 1992. After the bank filed the cases, insurance company came into a settlement with the bank. According to the settlement, the insurance company deposited Tk.35.00 lac as down payment and the bank rescheduled the rest. Insurance company paid his dues by 24 equal monthly installments of Tk.4.65 lac each.

2) Borrowers deposited Tk.30.00 lac and on 07.03.2003 applied to the bank to waive the interest and reschedule the loan account. The bank's board in their 404th meeting held on 18.06 2003 resolved that,

> a) Interest will not be charged on working capital loan from 30.09.1994, (b) Down payment of rescheduling Tk.18.44 lac and borrowers sundry deposits Tk.155.02 lac total Tk.173.46 lac should be adjusted against the principal long term loan amount, (c) Long term principal loan Tk.64.46 lac and legal cost, foreign exchange fluctuation cost Tk.4.54 lac total amount Tk.69.00 lac should be paid by 8 equal quarterly installments of Tk.8.63 lac each, (d) Waived accumulated interest on long-term loan up-to 31.03.1992 amounts Tk.449.01 lac and bridge financing accumulated interest up-to 30.06.1999 amounted to Tk.5.64 lac and total amount Tk.454.65 lac. (*Source:* File note)

3) Borrowers failed to deposit the installments and on 30.06.2004 again applied to the bank for rescheduling the unpaid amount. The bank's board in their 430th meeting approved the rescheduling and resolved that it should be paid by 12 equal quarterly installments.

4) Borrowers on 30.12.2004, 30.05.2005, and 29.06.2005 again applied to the bank for rescheduling the unpaid amount. But the bank's management board did not make any decision yet.

6.4.5.2 Legal Action: As a technique of handling problem loan, the bank took several legal actions against borrowers which are presented in the table below.

Table # 6.28

Shows the legal actions taken by the bank against borrowers

Nature of Action	Date	Against
Legal Notice	22.01.1992	Insurance company for guarantee of working capital loan
Suit file in the Artha Rin Adalat	27.02.1992	Borrowers and insurance company
Suit file	29.11.1997	Borrowers for working capital loan
File Execution Suit	30.06.1998	Borrowers
File Execution Suit	25.11.1998	Borrowers
Croaky Case Filed		Borrowers

Source: Credit file

6.4.6 Recovery of Loan: How much and when the loan recovered are presented in the table below:

Table # 6.29
Shows the Total recovery of loan

(Tk. in lac)

Account	Date	Amount
Sundry deposit	1982 to 1992	85.52
Insurance company	May,1992 to May1994	151.00
Sale of factory assets	26.06.2000	115.00
Down payment	07.03.2003	30.00
Installments	30.9.2003 to 29.6.2005	30.28
Total		**401.80**

Source: Credit file

6.4.7 Write off the Loan Account: After getting permission from Bangladesh Bank for write off the loan account, the bank's board in their 456th meeting held on 01.06.2005 wrote off Tk.500.25 lac as bad and loss.

6.4.8 Analysis and Findings

By analyzing the case the following facts are found:

6.4.8.1 Credit Policy: It is found that bank did not any credit policy at the time of feasibility study and loan sanction. No portfolio allocation and portfolio performance is found in the file.

6.4.8.2 Credit Investigation: Evidence of investigation regarding the performance of the borrowers existing businesses, price of the machinery, income tax payment is not found in the file. Credit officers failed to collect opinions of borrower's customers and creditors to confirm their payment behavior and collection efficiency. They also failed to collect opinions of the borrowers' competitors to ensure competitive position of the borrowers.

6.4.8.3 Credit Analysis

a) Technology: In feasibility report credit officers reported that

(1) Technology is already known to the country (2) Only Valika Woolen Mills, a BTMC enterprise sometimes produces Jeans cloth with negligible quantity, quality of which is inferior

In second statement, they wrote that only an enterprise was producing a negligible amount of denim cloth. On the other statement, they claimed that technology already known to the country. These are the contradictory statements in a sense that if an organization is producing a negligible amount of this product how this technology is well known to the country. Later it is found in the file that borrowers failed to produce denim cloth, the major product of the industry and the company becomes sick.

b) Forecasted Demand

1) Export demand: Import queries and borrowers statements were used to forecast the demand. No recognized data was used for forecasting demand.

2) Domestic demand: Domestic demand was forecasted on the basis of the study of the department of textile, Government of Bangladesh (GOB).

3) Demand Supply Gap Calculation: For forecasting demand and supply gap, credit officers assumed that the existing units would run on a single shift basis. But they expected that proposed unit would run on two-shift basis which lead to a wrong forecast of demand supply gap. They also failed to forecast the demand supply gap by sensitivity analyses. Credit officers ignored the production of up coming units in forecasting supply and demand supply gap. In forecasting supply, credit officers only considered the estimated production of the existing units and failed to collect and consider the actual production data of the existing units. The researcher believes that if they take in to consideration the actual production data of the existing units, they were able to forecast actual demand supply gap.

c) Price Comparison: In feasibility report, credit officers commented that prices of the products of this unit would be substantially lower than C&F price. But comparison table shows that the price of denim cloth, the major product of this unit was a bit lower than C&F price. Credit officers commented that existing companies were producing inferior product and they expected that the quality of the products of this unit would be superior. It is never expected that the existing units is producing inferior quality products and new unit would be able to produce superior quality product without having skilled manpower.

6.4.8.4 Monitoring and Review the Performance: It is evident from the file that credit officers failed to monitor and review the performance for update the grading of the loan. If credit officers could frequently monitor and review the performances of the borrowers and update the grading of the loan, the bank would be able to handle the loan in early stage and could escape from huge losses.

6.4.8.5 Handling Bad Loan: The study found a lot of bad loan signs in the file such as, (1) Delay in commercial operation, (2) Reluctance of borrowers to deposit the installments, (3) Poor performance of the company, (4) Suspension of production etc. It is expected that if credit officers feel that borrowers are unable to perform the loan, they would take necessary actions to liquidate the loan. But after seven years of suspending its commercial operation and non-repayment of loan, credit officers were failed to liquidate the loan. In this case, it is observed that credit officers took legal action, rescheduled the loan and waived the interest to handle problem loan. Other techniques such as advisory services, rehabilitation of the company, compromise settlement are available to handle bad loan. But credit officers failed to use these techniques.

6.5 CASE STUDY 4

Name of the Company : S. Packaging Ltd.

Name of the Financing Institution : Pubali Bank Ltd

6.5.1 Brief History of the Company: S. Packaging Company Ltd., a sister concern of S. Group. Group enjoyed credit facilities from the bank for long time. After opening L/C to import machinery for S. Packaging Company Ltd., owners of the company applied to the bank on 07.07.1997 for working capital loan of Tk.100.00 lac. The credit officer of the branch of the bank completed feasibility study and on 01.09.1997 sent a proposal to the bank's head office by recommending Tk.85.00 lac working capital loan. The bank's board of directors in their meeting held on 12.10.1997 sanctioned Tk.55.00 lac working capital loan. From inception of the loan, the branch allowed borrowers excess drawings. At the time of renewals and enhancements of the loan, the bank's management imposed condition on borrowers to adjust the excess drawings. The bank's board also directed the branch to take vigorous action to adjust the borrowers' excess drawings. But the branch and borrowers failed to adjust the excess drawings. On 12.10.2002, borrowers' excess drawing stood at Tk.842.18 lac. The bank issued several reminders to adjust the excess drawings. After receiving several reminders from the bank to adjust the excess drawing, borrowers on 09.04.2002 applied to the bank for renewal and enhancement of their existing loans, grant fresh loan and for rescheduling the loan by transferring excess drawing to a block account. They also applied to allow them three years time to adjust their excess drawing. The bank's board of directors in their 433rd meeting renewed the loan limit and transferred the excess drawing amount of Tk.842.18 lac in a block account and rescheduled it. According to the rescheduling, excess drawings have to be paid by monthly installments of Tk.23.44 lac each with 13% interest. Borrowers also have to deposit 20% of the loan amount as down payment. The branch informed the borrowers the terms and condition of renewal and rescheduling. Borrowers regret the terms and condition of rescheduling and again on 31.10.2002 applied to the bank to change some terms and condition of rescheduling. The bank's board again in their 483rd meeting rescheduled the excess drawing by creating two separate accounts. The board transferred the principal loan amount of Tk.873.86 lac in block account A, which have to be paid by equal monthly installment within 5(five) years with 8%

interest and interest amount of Tk.210.33 lac in block account B, which have to be paid by equal monthly installment within 5(five) years without interest. Borrowers again failed to deposit the down payment and installments. After borrowers had failed to repay the loan, the bank on 18.10.2004 served a legal notice on the borrowers to repay the loan. On 25.12.2004, the bank published an auction notice to sale the mortgaged property. The bank took necessary steps to file a suit in the Artha Rin Adalot 2003 against borrowers for its claim. In the mean time, borrowers on 07.05.2005 filed four writ petitions in the High Court against secretary Ministry of Law, Justice and Parliamentary Affairs, Bangladesh, for depriving them from their constitutional rights under Articles 26, 27, 31, 40 and 42 of Bangladesh Constitution. The bank on 26.10.2004 sought permission to the Bangladesh Bank to write off the loan amount of Tk.651.56 lac as bad and loss. Bangladesh Bank on 28.02.2005 gave permission to write off the loan account as bad and loss.

6.5.2 Directors of the Company

A. Alam, M. U. Ahamed, A. M. Sikder and A. Mamun are the directors of the company. Details regarding educational qualification, experience, assets and liability position, age of the directors are not available in feasibility study report and in the file. Only net-worth and designation of the directors are found in the feasibility report which are as follows:

1) A. Alom Managing	Diretor	Tk.108.22 lac
2) M. U. Ahamed	Director	22.53
3) A.M. Sikder	Director	1.25
4) A.Mamun	Director	5.00
Total net worth		**Tk.137.00 lac**

6.5.3 Credit Investigation

Credit officers paid visit to the factory site of the company and assessed the value of the factory land and building to be mortgaged to the bank. Borrowers in the application form declared that they had no liabilities. Credit officers made no efforts to collect information about borrowers' assets, liabilities, credit reputation, payment behavior, customer dealings and the performance of their existing businesses.

6.5.4 Feasibility Study: Aspects of feasibility study are presented in the following subsections:

6.5.4.1 Financial Structure of the Company

Feasibility study report contained the information that company's authorized capital was Tk.100.00 lac, paid up capital Tk.2.50 lac and total capital fund Tk.125.29 lac. Nothing about assessment of working capital need and the means of finance found in the feasibility report.

6.5.4.2 Technical and Economic Analysis: No technical and economic analyses are found in the feasibility report.

6.5.4.3 Financial Analysis: Following table shows the projected financial position of the company.

Table # 6.30
Shows the projected financial position of the company

Particulars	**1998**	**1999**	**2000**
Current Ratio	2.13	2.80	3.70
Quick Ratio	.85	1.54	2.44
Leverage	.78	.51	.34
Inventory Turn over (days)	98	94	95
Receivable Turn over (days)	9	9	9
Assets Turnover (times)	1.39	1.27	1.11
Net Profit to Sales (%)	15	17	20
Return on Equity (%)	33	53	66

Source: Credit file

6.5.4.4 Profit from the Group: It is found in the file that group had been enjoying working capital loan of Tk.48.00 lac since long time. Branch credit proposal contained information that bank earned Tk.4.30 lac from this group in the year 1997 and out of this income; interest income from 23.04.1997 to 30.06.1997 was Tk.3.44 lac.

6.5.5 Facilities Sought by Borrowers, Branch Recommendation and Head Office Approval and outstanding

For how much loan borrowers were applied, how much branch was recommended, how much the bank sanctioned and how much was outstanding are presented in the table below:

Table # 6.31
Shows the Facilities Sought by Borrowers, Branch Recommendation and Head Office Approval and year end outstanding

(Tk. in lac)

Nature of loans	Borrowers applied for		Branch Recommended		Head office sanctioned		Outstanding	
	Date	Amount	Date	Amount	Date	Amount	Date	Amount
C.C.(Hypo) L/C IBP	07.07 .1997	30.00 50.00 20.00	01.09. 1997	30.00 40.00 15.00	10.10. 1997	35.00 30.00	----	------
Total		**100.00**		**85.00**		**55.00**		
C.C.(Hypo) L/C IBP O.D.	22.10 .1998	75.00 50.00 100.00 25.00	05.01. 1999	50.00 50.00 ----- 100.00	25.02. 1999	40.00 50.00 ------- 70.00	22.10 .1998	32.23 53.06 ------ 84.11
Total		**250.00**		**200.00**		**160.00**		**169.40**
C.C.(Hypo) L/C IBP	09.02 .2000	100.00 50.00 100.00	01.03. 2000	100.00 75.00 100.00	02.04.00	55.00 75.00 100.00	01.03 .2000	39.73 66.84 125.54
Total		**250.00**		**275.00**		**230.00**		**232.11**
C.C.(Hypo) L/C IBP	16.05 .2001	300.00 400.00 1000.00	31.05. 2001	250.00 300.00 1000.00	12.10. 2002 Rescheduling	842.18 75.00 150.00	31.05 .2001 PAD	74.58 346.00 490.00 205.00
Total		**1700.00**		**1550.00**		**1067.18**		**1115.58**

Source: Credit file

6.5.6 Comparison of Forecasted and Actual Performance of the Company:

Comparative statements of the company's forecasted and actual performances are presented in the table below.

Table # 6.32
Shows the Comparison between Forecasted and Actual Performances of the Company

Basis of comparison	Forecasted			Actual		
	1998	1999	2000	1998	1999	2000
Current Ratio (CR)	2.13	2.80	3.70	.47	1.17	1.01
Quick Ratio (QR)	.85	1.54	2.44	.15	.58	1.50
Leverage (times)	.78	.51	.34	4.59	1.24	3.72
Inventory Turnover(days)	98	94	95	120	67	110
Receivable Turnover (days)	9	9	9	40	33	85
Assets Turnover (times)	1.39	1.27	1.11	1.10	2.27	1.71
Net Profit to Sales (%)	15	17	20	10.48	5.88	12.11
Return on Equity (%)	33	53	66	66.05	30.55	98.19
Sales (Tk.in lac)				245.47	504.10	990.09
Net Profit (Tk. in lac)				36.75	58.11	119.92
Inventory (Tk.in lac)				58.95	73.95	231.03
Receivables (Tk.in lac)				182.62	120.32	230.46

Source: Credit file

6.5.7 Trends of Excess Drawing: Trends of Excess Drawing are presented in the table below:

Table # 6.33
Shows the Trends of Excess Drawings

(Tk. in lac)

Date	Limit Sanctioned	Actual Drawing	Excess drawing
26.10.1997	25.00	88.40	63.40
22.10.1998	55.00	169.49	114.49
09.02.2000	165.00	232.11	67.11
31.05.2001	230.00	1115.58	885.58

Source: Credit file

Table 6.33 depicts that from the very beginning of the loan, borrowers drew excess amount from the bank. In the year 2001, they drew huge excess amount of Tk.885.58 lac and it is considered as the main cause of the loan to turn in to default.

6.5.8 Handling Problem Loan: The following techniques were applied by the bank for handling this problem loan.

1) Decline to renew the loan: From inception of the loan, branch allowed borrowers excess drawings. After huge excess drawing in the year 2001, the bank board of directors declined to renew and to enhance the credit limit. Bank's head office via their letters several times directed the branch manager to take necessary actions to adjust the excess drawings. But branch and borrowers failed to adjust the excess drawings.

2) Rescheduling the loan: After borrowers had failed to adjust the excess drawings, on 09.04.2002, they applied to the bank for rescheduling the loan by transferring the excess drawings to an interest free "Block A/C" and renew the existing limit. Bank board of directors in their 433rd meeting rescheduled the excess drawings amounted to Tk.842.18 lac by transferring it to a block account and renewed the existing limit. According to rescheduling, borrowers have to deposit 20% of excess drawing as down payment and remaining by equal monthly installment of Tk.23.44 lac each with 13% interest within 31.10.2005.

3) Re-fixation of terms and conditions of rescheduling: Branch informed the borrowers the terms and conditions of rescheduling. Borrowers regretted the conditions of rescheduling and on 31.10.2002 and on 26.01.2003 applied to the bank to change some terms and conditions of rescheduling. They also applied to the bank to create an interest free block account, to reduce the interest rate, to waive interest and to extend the repayment period. Bank's board of directors in their 483rd meeting rescheduled the excess drawings. In rescheduling, board created two separate block account named block account "A" and block account "B". Board transferred the principal amount of Tk.874.00 lac to "Block A/C-A" and resolved that it have to be paid by equal monthly installments with 8% interest within 5(five) years. Accrued interest Tk.210.32 lac transferred to "Block A/C-B" and it have to be paid by equal interest free monthly installments within 5(five) years.

4) Legal Actions: After borrowers had failed to deposit the installments, the bank on 29.09.2004 served a legal notice on to borrowers to repay its claim. Bank also published an auction notice in the daily news paper to sale the mortgaged property on 25.12.2004. Bank now is prepared to file a suit in the Artha Rin Adalot 2003.

6.5.9 Recovery of Loan

Working capital loan holds the character of continuous drawings and repayment. In 2002, after huge excess drawing, bank's board declined to renew and to enhance the loan limit. By considering borrowers' applications, bank's board on 12.10.2002 and on 26.05.2004 rescheduled the loan account but they failed to deposit any installment yet.

6.5.10 Classification Status: In 2002, borrowers were declared defaulter for non payment of excess drawings and on the expiry of the renewal date of the loan. After rescheduling, borrowers applied to the bank to take necessary steps for declassifying them. On request of the bank, Bangladesh Bank on 21.08.2004 gave No Objection Certificate (N.O.C) for declassifying them. After that, borrowers again become defaulter for non-payment of installments.

6.5.11 Write off the Loan Account: Bank has classified the loan as bad and loss and applied to Bangladesh Bank for giving permission to write off the loan amount of Tk.651.56 lac. Bangladesh Bank on 28.02.2005 gave No Objection Certificate (N.O.C) to write of the loan amount of Tk.651.56 lac.

6.5.12 Analysis and findings

By analyzing the case the study found the following facts:

6.5.12.1 Credit Policy: It is found in the file that at the time of appraisal and approval of loan the bank did not have any written credit policy.

6.5.12.2 Credit Investigation: For credit investigation, the credit officer paid visits to the factory site of the company. The credit officer did not investigate any other aspects of credit investigation to evaluate the creditworthiness of the borrowers.

6.5.12.3 Credit Analysis: In credit analysis, the credit officer analyzed the following aspects:

(1) Inventory and receivable turnover: It is found in the feasibility study report that in calculating inventory turnovers, the credit officer estimates that it would be 98 days, 95 days and 95 days respectively for the financial years 1998, 1999, 2000 and receivable turnovers 9 days for the financial years, 1998, 1999, and 2000. The study believes that receivables turnovers were underestimated. Later it is found in the file that actual receivable turnovers were 40 days, 33 days, and 85 days respectively for the financial years 1998, 1999, and 2000.

(2) Leverage: The officer forecasted that leverage of the company would be .78 times, .51 times and .34 times in the financial years 1998, 1999, and 2000. But actually it was 4.59 times, 1.24 times and 3.72 times in the financial yeas 1998, 1999 and 2000.

(3) Excess drawings: It is found in the file that the credit officer allowed excess drawings from the inception of the loan. In the year 1997 it was about Tk.64 lac. Subsequently it was increased to Tk 885.58 lac in the year 2001.

6.5.12.4 Identification and Handling Problem Loan: It is clear from the file study that the bank allowed huge excess drawings from very beginning of the loan. It is a violation of banking rules. Continuous allow of excess drawings and reluctance of borrowers to adjust it proved that the bank management encouraged borrowers in violating the banking rules. It is the responsibility of the credit officer to monitor and to detect signs of a problem loan. If he actively involves in malpractices how he could detect the signs of a problem loan and handle it?

6.5.12.5 Disciplinary Action against the Credit Officer: The bank's head office several times sought explanations to the branch manager why and who allowed borrowers excess drawings. The branch manager gave explanations. It is true that the branch allowed borrowers huge excess drawings and it is no denying the fact that they were actively involved in the mechanism. The bank's management has not yet taken any action against the credit officer.

6.6 CASE STUDY 5

Name of the Company : I. Leather Process Ltd.

Name of the Financing Institution : IFIC Bank Ltd.

6.6.1 History of the Company: I. Leather Process Ltd. was an export oriented leather processing unit situated at Savar, Dhaka. Owners of the company estimated the financing need of the company at Tk.474.11 lac. They got permission from the department of industries, Bangladesh, to set an industry costing Tk.474.11 lac and later it was revised at Tk.743.90 lac. The company got from MABINCO a term loan of Tk.439.36 lac. Owners of the company applied to the bank on 23.07.1988 for working capital loan of Tk.400.00 lac. Bank's board on 27.09.1988 sanctioned Tk.400.00 lac working capital loan and segregated the loan as: Tk.200.00 lac permanent working capital, and Tk.200.00 lac for Eid purchase working capital. The company started its commercial operation on 12.12.1989. Bank several times renewed and enhanced the credit facilities. After six years of its operation, company suspended its commercial operation in 1995 and at the end of the year all the sponsor directors of the company resigned. After resignation of the directors of the company, MABINCO took over the management position of the company. Borrowers suspended their transaction with the bank and became defaulters. On 28.04.1999; the bank sent a legal notice on to the sponsor directors to repay their loan. But they failed to repay the loan and the bank on 27.04.2000 filed a suit against borrowers in the Artha Rin adalat 3 for its claim of Tk.1056.06 lac. On filing the suit, a sponsor director of the company applied to the bank on 07.09.2003 by seeking waiver of 85% of before case accrued interest and 100% of during and after suit accrued interest. In the mean time, the bank's total claim stood at Tk.1446.33 lac. The bank's board of directors in their meeting held on 05.11.2003 decided to waive interest of Tk.1030.32 lac and rescheduled the rest. According to the rescheduling, borrowers have to pay 10% of rescheduled amount as down payment and the rest by 16 (sixteen) equal interest free quarterly installments of Tk.23.40 lac each. After rescheduling the loan, the bank on 16.11.2003 withdrew the case against the borrowers. After withdrawing the case, borrowers on 17.11.2003 applied to the bank to take necessary steps to declassify their name as defaulters. On the request of the bank, Bangladesh Bank on 27.12.2004 gave a No Objection Certificate (N.O.C.) and declassified the borrowers and the company. Borrowers have been depositing the installment regularly since rescheduling.

6.6.2 Directors of the Company: The name of the directors are found in the file but detail about their assets, liabilities, educational qualification, experience, capability, existing ventures were not available in the file.

6.6.3 Application for the Loan: It is found in the file that before submitting the application for loan, a meeting was held among three parties (deputy chairman and a director of MABINCO, managing director of the I. Leather and the managing director of the bank). After holding the meeting, the managing director of the company on 23.07.2003 applied for loan in a letter pad of the company. On 30.07.1988 the general manager of MABINCO wrote a letter to managing director of the bank for urgent response (within 2/3 days) from the bank regarding loan sanction.

6.6.4 Feasibility Study

The bank was not prepared the feasibility study report. It made decision on the basis of the feasibility study report of MABINCO. MABINCO's feasibility report contained the followings:

6.6.4.1 Original and Revised finance need of the Company: Original and revised finance need of the company is presented in the table below:

Table # 6.34
Shows the Original and Revised finance need of the Company

(Tk. in lac)

Particulars	**Original Cost**			**Revised Cost**		
	F/C*	**L/C****	**Total**	**F/C**	**L/C**	**Total**
Land	------	5.50	5.50	------	15.00	15.00
Building	-------	88.30	88.30	------	95.00	95.00
Machinery	240.00	30.35	270.35	403.14	70.06	473.20
Office equipment	-------	7.50	7.50	-----	11.00	11.00
Pre-operating expenses	------	4.00	4.00	12.46	24.84	37.30
Contingency	------	19.60	19.60	------	-------	-------
Interest during construction	------	33.16	33.16	-------	37.40	37.40
Total fixed cost	240.00	188.41	428.41	415.60	253.30	668.90
Working capital(net)	-------	45.70	45.70	------	75.00	75.00
Total cost	**240.00**	**234.11**	**474.11**	**415.60**	**328.30**	**743.90**

Source: Credit file

Note: *F/C: Foreign currency,
**L/C: Local Currency

6.6.4.2 Means of Finance: Original and revised sources of finance of the company are presented in the table below:

Table # 6.35
Shows the original and revised sources of finance of the company

(Tk. in lac)

Sources of Finance	Original			Revised		
	F/C*	L/C**	Total	F/C	L/C	Total
Bank loan	240.00	-----	240.00	415.60	------	415.60
IDCP***	------	21.72	21.72	-------	37.40	37.40
Directors loan	-------	12.39	12.39	-------	10.90	10.90
Total Debt	240.00	34.11	274.11	415.60	48.30	463.90
Equity:						
Sponsors contribution	-----	100.00	100.00	------	140.00	140.00
Underwriting	-------	100.00	100.00	-------	140.00	140.00
Total Equity		200.00	200.00		280.00	280.00
Total Debt & Equity			**474.11**			**743.90**

Source: Credit file

Note: *F/C: Foreign currency,
**L/C: Local Currency,
***IDCP: Interest during construction period.

6.6.4.3 Profitability: Forecasted profitability of the company is shown in the table below:

Table # 6.36
Shows the forecasted profitability of the company

(Tk. in lac)

Particulars	**1st year**	**2nd year**	**3rd year**	**4th year**
Attainable Capacity (%)	60	65	70	80
Revenue	811.00	1004.00	1070.00	1234.00
Gross Profit	251.00	324.00	330.00	404.00
Earning before interest and tax	194.00	259.00	260.00	327.00
Earning after tax	92.65	148.97	154.57	218.03
Dividend 25%	70.00	70.00	70.00	70.00
Retained Earning	22.65	78.97	84.57	148.03
Gross Profit to Sales (%)	31	32	31	32
Net Profit after Bond Purchase (%)	11	15	14	17
Debt Servicing Coverage Ratio(times)	3.08	3.90	2.47	3.17

Source: Credit file

6.6.4.4 Statement of Fixed Assets: In feasibility study report, the credit officer prepared a statement of the company's fixed assets. This was as follows:

Assets	Tk. in lac	% of total assets
Land and building	223.12	27.81
Machinery, furniture, fixture & vehicles	579.20	72.19
Total	Tk.802.32 lac	100%

It observed in the statement of fixed assets that the share of immovable property is only 27.71% in comparison to total fixed assets.

6.6.4.5 Cash flow Statement: The company's forecasted cash flow statement showed that fund would be available from the bank loan amount to Tk.116.69 lac, Tk.64.58 lac, and Tk.71.10 lac in first, second, and third month of the first year and outflow would be (bank deposit) Tk.46.40 lac, Tk.58.00 lac, and Tk.69.60 lac respectively for the first, second and third month of the same year.

6.6.5 Documentation: At the time of approval of the loan, the bank imposed a condition on borrowers that, the bank would create a registered first charge on the inventory and second charge on the fixed assets of the company. But later on 21.06.1989, the bank head office sent a letter by ordering the branch to create a token legal mortgage and equitable mortgage instead of registered mortgage by considering the loan as a special loan. The branch accordingly created a token mortgage amount of Tk.1.00 lac and equitable mortgage with the consent of MABINCO.

6.6.6 Outstanding Trends of the Loan: It is found in the file that the credit officer prepared a statement of outstanding of the loan account. The table below shows the outstanding trends of the loan account:

Table # 6.37
Shows the trends of outstanding loan of the company

(Tk in lac)

Date	30.11.89	30.12.90	31.12.91	31.12.92	29.07.93	27.01.96	28.04.99	17.04.2000	15.09.04
Outstanding	71.32	336.42	333.65	375.89	418.00	542.62	855.29	1056.06	1446.33

Source: Credit file

6.6.7 Facilities Sought by Borrowers, Branch Recommendations, Head Office Approval, Outstanding and Expiry Dates: Following table shows the facilities sought by borrowers, the branch recommendations, the head office approval, outstanding balances and the expiry dates of the loan:

Table # 6.38

Shows Facilities Sought by Borrowers, Branch Recommendations, Head Office Approval, Outstanding loan and its Expiry Dates

(Tk. in Lac)

Nature of loan	Borrowers application date and amount		Branch recommendation		Head office approval		Out standing	Expiry date
C.C*.(hypo)	23.7.1988	400.00	----	400.00	27.9.1988	400.00	------	31.8. 89
C.C.(hypo)	24.9.1989	400.00	8.11.1989	400.00	04.6.1990	400.00	78.35	30.12. 90
C.C.(hypo)	23.1.1990	400.00	23.1.1990	400.00	29.12.1991	400.00	336.42	31.12. 92
C.C.(hypo)	7.3.1992	500.00	7.3.1992	500.00	------	-------	375.89	-----
C.C.(hypo)	21.4.1993	800.00	27.1.1996	800.00	------	-------	542.62	-------

Source: Credit file

Note: * C.C: Cash Credit

6.6.8 Comparison between Estimated and Actual Performance of the Company: The following table shows the comparison between estimated and actual performance of the company.

Table # 6.39

Shows the comparative statements of estimated and actual performance of the company

Basis of Comparison	Estimated				Actual			
	1styear	2nd year	3rd year	4th year	1989	1990	1993	1997
Gross Profit to Sales (%)	31	32	31	32	N/A*	N/A	N/A	N/A
Current Ratio					2.54	.28	.39	.06
Debt/Equity Ratio	62:38				62:38	75:25	82:18	84:16

Source: Credit file

Note: *N/A: Not Available

6.6.9 Inspection Report: It is found in the file that the credit officer inspected the factory only once on 05.02.1990. Borrowers from time to time submitted the company's inventory positions to the bank in the bank's prescribed form and the credit officer always relied on those reports.

6.6.10 Handling Problem Loan: After becoming the loan as problem loan, the bank adopted the following steps to handle it:

(1) Rescheduling: After fifteen (15) years of the sanction and disbursement, in 2004, the loan account stood at Tk.1446.33 lac. Due to non repayment of the loan, borrowers became defaulter and they applied to the bank to waive interest and to reschedule the loan. The bank waived the interest amounted to Tk.1030.32 lac and transferred working capital loan of Tk.416.00 lac to a term loan account and rescheduled it. According to the rescheduling, borrowers had to deposit Tk.41.60 lac as down payment of rescheduling and the rest by equal installment of Tk.23.40 each.

(2) Legal Actions: After default the loan, borrowers suspended the transaction with the bank. 6(six) years after suspending the transaction, the bank on 28.04.1999 sent a legal notice to sponsor directors of the company to repay their debts within 15(fifteen) days and on 27.04.2000 filed a suit against them in the Artha Rin Adalot-3 for its claim of Tk.1056.06 lac. Subsequent to file the suit, borrowers came to a settlement with the bank and the bank on 16.11.2003 withdrew the case.

6.6.11 Recovery of Loan: According to the settlement, borrowers deposited Tk.41.60 lac as down payment of rescheduling. The rest amount has been depositing the borrowers by equal installment of Tk.23.40 each since rescheduling.

6.6.12 Analysis and Findings: By analyzing the case the following facts are found:

6.6.12.1 Feasibility study Report: It is found in the file note that borrowers applied after holding the meeting among the three parties namely: managing director of the bank, the deputy chairman, and a director of MABINCO, and the managing director of ILPL. Borrowers applied for the loan on a letter pad of the company though the bank at that time had prescribed application form. The feasibility study report of MABINCO was attached to the application. MABINCO's feasibility study report contained the cost of the project; the means of finance and the forecasted profitability of the company. Neither credit investigation nor analysis were done by credit officers of the bank to determine the actual working capital need; to assess the character of the borrowers; their capability; and the performance of their existing businesses. Credit officers relied on the feasibility report of the MABINCO.

It is also found in the file that borrowers applied for the loan on 23.9.1988 and the bank sanctioned it on 27.9.1988. The study believes that it is impossible to investigate and to prepare a feasibility report within a period of 4(four) days. It is found in the MABINCO feasibility report that, company required Tk.75.00 lac net working capital and it would be financed from various sources rather than the bank loan. The credit officer failed to make queries, why the borrowers applied for working capital loan of Tk.400.00 lac though MABINCO feasibility study showed the net working capital need amounted to Tk.75.00 lac? why the means of finance did not show any working capital loan?

Originally, the cost of the project was estimated at Tk.474.11 lac and later it revised at Tk.743.90 lac, about double of the original estimate. Causes of revision are not found in the file. The company got permission from department of industries, Bangladesh, to set up an industry costing Tk.489.70 lac but the bank financed a project costing Tk.743.90 lac. No evidence is found in the file about application and the permission of the department of industries, Bangladesh, for revision of cost.

6.6.12.2 Valuation of the Land and Building: In the statement of fixed assets, the credit officer valued land and buildings at Tk.223.11lac. But in calculating financing need, credit officers estimated that land cost would be Tk.15.00 lac and building cost would be Tk.95.00 lac. It is appeared inconsistent. The credit officer did not give any explanation about this.

6.6.12.3 Documentation: Documentation was not properly made in this case. At the time of loan sanction, the credit officer decided that he would create first charge on inventory and second charge on fixed assets before disbursement of the loan. But later it is found that head office ordered the branch to create a token legal charge and equitable mortgage by considering the loan as a special one. At the time of renewal and enhancement of the loan, the credit officer again changed his stand and willing to create pari-passu charge with the consent of MABINCO. But it is found in the file that the credit officer did not create pari-passu charge.

6.6.12.4 Monitoring and Review the Performance of the borrowers: It is necessary to review the performance and update the grading of the loan regularly to ensure recovery of the loan. It is found in file that the credit officer paid visits to the company only once and always relied on the report of the borrowers. The provisional and audited financial statements showed that the company has been incurring huge losses from its inception. Company's current ratio, debt equity ratio, inventory turnover ratio have been deteriorating over the years. But the credit officer did not review the performance of the company. He failed to identify the causes of poor performance; to take actions to improve the financial position of the company; and to call back the loan. Rather it is found in the file that credit officer always sent proposals to the head office for renewal of the loan.

6.6.12.5 Handling Problem Loan: A lot of bad loan signs are developed by scholars. Early detection of problem loans and efficient handling of it can avoid loan losses. Signals of bad loan such as, huge losses over the years; poor inventory turnover; poor assets turnover; poor current ratio; poor payment of loan; change of management; suspension of operation; huge block inventory; huge creditors; poor transactions are found in this case. But the credit officer failed to identify these signs of problem loan or intentionally overlooked these.

6.7 CASE STUDY 6

Name of the Company : M. Group of Industries Ltd.

Name of the Financing Institution : Pubali Bank Ltd

6.7.1 Abstract: Poor credit management results non-performing loan. Credit management means evaluation of credit proposal, monitoring and reviewing the performance of borrowers, identification and handling problem loan. Inefficient or cursory evaluation of credit proposal, infrequent or poor monitoring, failure to review the performance regularly and use of inadequate techniques to handle problem loan results loan default. This case is characterized by poor evaluation of credit proposal, existence of anomalies between the branch and head office credit appraisal, influences of top executives in granting loan, poor monitoring and review the performance of company, excess drawings, several rescheduling and delay in identifying and handling.

6.7.2 History of the Company: M. Group consists of M. Enterprise Ltd., M. Industries Ltd., M. Paper Industries Ltd., M. Fine Papers ltd., and M. Tissue Paper Ltd. M. Enterprise Ltd. and M. Industries Ltd. The group has been enjoying credit facilities from S. Bank since long time. After establishment of M. Paper Industries Ltd., owners of the group on 13.2.1994 applied to the bank for working capital loan of Tk.1425.00 lac and a term loan of Tk.700.00 lac. It is found in the file that, borrowers planned to use working capital loan of Tk.1050.00 lac to repay the existing loan to S. Bank and the rest to meet the working capital need and to purchase fixed assets of M. Paper Industries Ltd. The bank's board of directors on 04.04.1994 sanctioned Tk.250.00 lac term loan and Tk.970.00 lac working capital loan total Tk.1220.00 lac in favor of M. Paper Industries Ltd. The bank's board of directors several times renewed and enhanced the credit facilities. Borrowers always tried to maintain the credit within limit. But in the year 2001, the bank allowed borrowers huge excess drawings (about Tk1741.25 lac). The bank's head office several times directed the branch and the borrowers to adjust the excess drawings. But borrowers failed to adjust the excess drawings. After borrowers had failed to repay the loan, they applied to the bank for rescheduling the loan. The bank's board of directors on 4.11.2002 decided to transfer the excess drawing to a block account and rescheduled it. According to the rescheduling the PAD[†] liability should have been paid by monthly installment of Tk.25.00 lac within five years and other excess drawings in various accounts should

[†] PAD: Abbreviation of PAD is payment against document. It is one types of short term loan

have been paid within 30.6.2003. During processing of the loan file for rescheduling, borrowers became defaulter. After rescheduling, borrowers applied to the bank to take necessary steps to declassify their name as defaulter and the branch on 04.01.2003, requested the head office to take necessary steps to declassify the borrowers. The head office applied to the Bangladesh Bank to declassify the borrowers' name and got permission from Bangladesh Bank to declassify the borrowers' name.

Borrowers failed to fulfill the conditions of rescheduling and again applied to the bank for rescheduling the excess drawings and to renew the existing credit limit. On 27.04.2004, the bank again renewed the loan amounted to Tk1400.00 lac and transferred Tk 2295.00 lac to a block account which would be paid by equal quarterly installment within 8 years with 8% interest. The installment size was fixed at Tk100.10 lac each. Borrowers again applied to change some conditions of rescheduling and the bank's board on 26.12.2004 resolved in their board meeting that interest on block account would not be charged up to 2(two) years. Borrowers again applied to reduce the installment size and the branch sent a proposal to the head office to reduce the installment size from Tk.100.10 lac to Tk.50.00 lac. The bank's board in their 323rd meeting held on 26.05.05 declined to reduce the installment size and resolved that legal action should be initiated if borrowers fail to deposit two consecutive installments.

6.7.3 Brief Bio-Data of the directors of the group

Major General (Rtd.) R. Jabbar: General R.Jabbar., the chairman of all the units of the M. group has served as Bangladesh High Commissioner of Turkey and chairman of Bangladesh Red Crescent Society. His net worth was Tk. 26.54.

M. A. Tasem: M. A. Tasem, the managing director of all units of M. group, a science graduate. He started his carrier as a credit officer, resigned from bank in 1973 and started his carrier as a businessman. As per application form, value of M.A.Tasem's assets was Tk.259.68 lac and liabilities Tk.20.80 lac.

Mrs. S. Tasem: Mrs. S. Tasem, the directors of all units of M. group is a housewife. Her total asset was Tk.60.67 lac and she had no liabilities.

K. G. Tilan: K. G. Tilan, the technical director and also the G. M. of the M. Paper Industries Ltd., served as manager for 30 years in various paper mills in Bangladesh. As per application his assets value was Tk10.00 lac and he had no liabilities.

6.7.4 Feasibility Study Report: Step wise feasibility study report is presented in the following subsections.

6.7.4.1 Credit Investigation: Evidence of collection of creditors/customers/bankers opinion/trade checking/CIB report is not available in the file. M.D., A. G. M. (Credit, head office) and D. G. M. (Branch) of the bank paid visit to the factory site. In the credit proposal credit officer commented that

> M. Paper Industries Ltd. yet not received any credit facility from any bank. The unit is the sister concern of M. group. All the directors of this unit are also the directors of the M. group.

6.7.4.2 Income Tax: Evidence of payment of income tax by sponsor directors is not found in the file. For group income tax, credit officer wrote that

> Company is enjoying tax holiday facility.

6.7.4.3 Management Appraisal: Management was mainly vested on board of directors. The managing director of the company was the key executive of the company. All directors had previous business experience. The technical director also the general manager of the company had 30 years of working experience as manager in various paper mills in Bangladesh.

6.7.4.4 Technical Appraisal: By assessing technical aspect the credit officer commented that,

> Machines are second hand with German technology. Machinery already have been procured and installed. The cost of the product will become lower than existing product of other industries in Bangladesh because this unit will use wasted paper as 20% raw materials for production.

6.7.4.5 Marketing Appraisal: The credit officer appraised the market demand of the company product and commented that

> The demand of the industrial grade paper is increasing day by day with the growth of industry in the country.

6.7.4.6 Financial Analysis: The following aspects were analyzed in the financial analysis.

1) Financing plan of the Company: It is shown in the table below that the company was highly leveraged. The company used about 76% of borrowed capital.

Table # 6.40
Shows the cost and means of finance of M. Paper Industries Ltd.

(Tk in Lac)

Cost of the Company		Means of Finance		Percentage
Cost already incurred	1026.07	Long term bank loan	1345.46	50.08
Cost to be incurred	784.41	Owners Equity	640.20	23.83
Working Capital	875.88	Working capital loan	700.70	26.08
Total cost	2686.36	Total financing	2686.36	100.00

Source: Credit file

2) Forecasted profitability of the company: The credit officer estimated the future profitability of the company ant it is presented in the table below:

Table # 6.41
Shows the Forecasted Profitability of M. Paper Industries Ltd.

Particulars	1st year	2nd year	3rd year	4th year	5th year
Gross Profit to Sales (%)	24	24	24	24	24
Operating Profit to Sales (%)	21	21	21	21	21
Net Operating Profit to Sales (%)	14	15	15	15	15
Current Ratio	2.01	2.38	2.77	3.18	3.71
Quick Ratio	1.88	2.24	2.63	3.04	3.71
Debt Service Coverage Ratio	1.80	2.08	2.31	2.55	2.74

Source: Credit file

Figures in the above table and the way of forecast appear to be cooked. All the figures are very encouraging. Had it been a reasonable one, the company could not fall any financial problem.

3) Projected cash surplus: The credit officer projected the following cash flow of the company:

Table # 6.42
Shows the projected Cash surplus of the Company

(Tk. in Lac)

Construction Year	1st year	2nd year	3rd year	4th year	5th year
260.41	277.29	319.49	373.01	427.98	467.75 1

Source: Credit file

Table shows that cash surplus would be in the construction year Tk.260.41 lac. It appears wrong because, how the surplus cash would be Tk. 260.41 lac during construction year? The credit officer gave no explanation about this. It is clear from the table that the company would have cash surplus. But the company is facing financial problem.

4) Long term Loan Break-up

Fixed–Assets	Tk.1085.41 lac
Interest During construction	260.05
Total	Tk.1345.46 lac

5) Commercial Operation: The credit officer commented about commercial operation of the company. He commented that

> The unit will go into commercial operation within 2/3 months.

6.7.4.7 Recommendation: In feasibility report the credit officer recommended that,

> As per company profile, all the financial factors show excellent performance of the company. The machineries were second hand with German technology. Machineries already been imported and install by constructing the required factory building. Sponsors used their own fund to procure machineries and own land for installation of it. There is a scope for wide marketability of this product. Price will be lower due to consumption of 20% of local waste paper as raw materials. It may kindly noted that the proposed borrowers will utilize LSM (Loan against Secured Mortgage) Tk.450.00 lac, to complete the incomplete construction works of M. Paper Industries Ltd. and the balance Tk.250.00 lac will be needed by them for importing machineries and equipments of M. Fine Paper Mills Ltd., the second unit of the mill after successful commencement of commercial production of the present unit.

6.7.5 Head office credit appraisal: After preparing feasibility study report, the branch sent a credit proposal to the bank's head office. After receiving the branch credit proposal, the head office's credit officer also prepared a board memo and presented it to the bank's board of directors for approval. The board memo contained the following information:

6.7.5.1 Projection of important ratios: The credit officer projected the following important ratios:

Table # 6.43
Shows the projected Important Ratios

Particulars	**1994-1995**	**1995-96**
Current Ratio	.81	1.44
Quick Ratio	.10	.61
Leverage(gross)	2.58	1.00
Inventory Turnover(days)	85	81
Receivable Turnover(days)	8	8
Assets Turnover(times)	1.77	1.61
Gross Profit to Sale (%)	27	28
Net Profit to Sales (%)	18	20
Return on Equity (%)	112.76	63.38
Debt/Equity Ratio	46:54	------

Source: Credit file

Table shows that projected profitability and activities ratios are very good whereas liquidity ratios are very weak. The situation appears to be abnormal. It may be that management used all fictitious figures.

6.7.5.2 Existing and proposed credit: The following table exhibits the existing credit and the proposed credit facilities of the company

Table # 6.44
Shows the existing and Proposed Credit of the company

(Tk. in lac)

Types of credit	Existing	Proposed
C.C. (pledge)	—	450.00
C.C. (Hypo)	—	10.00
Overdraft	84.00 lac	100.00
Term loan	—	250.00
L/C		300.00
Bank Guarantee	—	20.00
Total		1220.00

Source: Credit file

From the table it is clear that the company currently enjoying overdraft facility and applied for various short term loan facilities.

6.7.5.3 Valuation of the company assets: The following table exhibits the acquisition date of fixed assets, date of valuation, actual price, estimated market price and the increased value of fixed assets.

Table # 6.45
Shows the Valuation of Fixed Assets

(Tk.in lac)

Description of Assets	Date Acquired	Date of Valuation	Actual Price	Market Price	Increase
Land and land development	1992-94	1994	25.00	212.71	750.80%
Building and construction works	1992-94	1994	425.00	657.89	54.80%
Plant and machinery	1992-94	1994	347.00	577.53	66.40%

Source: Credit file

It is clear from the above table that the estimated market value of land and land improvement is 750.80% higher than the actual price. Building and construction works is 54.80% and plant and machinery is 66.4% higher than actual price.

6.7.6 Facility Sought by M. Group, Branch Recommendation, Head office Sanctioned, Outstanding balances and the expiry dates: Facility sought by M. Group, branch recommendation, head office sanction, outstanding balances and expiry dates are presented in the table below.

Table # 6.46
Shows the Facility Sought by M. Group, Branch Recommendation, Head office Sanctioned and Outstanding

(Tk. in lac)

Nature of loan	Borrowers application		Branch Recommendation		Head Office Sanction		Outstanding	Expiry date	
	Date	Amount	Date	Amount	Date	Amount	Date	Amount	Date
C.C.(Pledge)	13-2-1994	450.00	12-2-1994	450.00	4-4-1994	450.00			
C.C (Hypo)	13-2-1994	375.00	12-2-1994	375.00	4-4-1994	100.00	—	—	30-6-95
L.S.M. (Term loan)	13-2-1994	700.00	12-2-1994	700.00	4-4-1994	250.00			
L/C limit	13-2-1994	600.00	12-2-1994	600.00	4-4-1994	300.00			
Over draft	—	—	—	—	4-4-1994	100.00	—	84.00	
Bank Guarantee	--------	----------	---------	---------	4-4-1994	20.00		84.00	
Total		2125.00		2125.00		1220.00			
C.C.(Pledge)	13-6-1995	700.00	2-7-1995	550.00	25-9-1995	550.00	2-7-1995	347.20	
C.C.(Hypo)	13-6-1995	100.00	2-7-1995	200.00	25-9-1995	200.00	2-7-1995	99.20	
Overdraft.	13-6-1995	500.00	2-7-1995	800.00	25-9-1995	800.00	2-7-1995	153.00	30.6.96
L/C	13-6-1995	250.00	2-7-1995	20.00	25-9-1995	20.00	2-7-1995	410.25	
Term Loan	13-6-1995	20.00	2-7-1995	420.00	25-9-1995	420.00	2-7-1995	212.91	
Bank Guarantee	13-6-1995	—	2-7-1995	20.20	25-9-1995	20.20	2-7-1995	245.88	
IBP								1578.44	
Total		**1570.00**		**2010.20**		**2010.20**			

Table 6.46 Continued

Nature of loan	Borrowers application		Branch Recommendation		Head Office Sanction		Outstanding	Expiry date	
	Date	Amount	Date	Amount	Date	Amount	Date	Amount	Date
C. C. Hypo	4-6-1996	650.00	10-6-1996	550.00	7-7-1996	550.00			
L/C	4-6-1996	400.00	10-6-1996	400.00	7-7-1996	400.00			
Term loan	4-6-1996	159.00	10-6-1996	158.74	7-7-1996	158.74			30.6.97
Overdraft	4-6-1996	100.00	10-6-1996	100.00	7-7-1996	100.00			
Bank Guarantee	4-6-1996	20.00	10-6-1996	20.00	7-7-1996	20.00			
IBP	4-6-1996	450.00	10-6-1996	400.00	7-7-1996	400.00			
Total		**1779.00**		**1678.74**		**1678.74**			
C.C.(Hypo)	30-10-1997	650.00	25-11-1997	650.00	30-12-1997	650.00			22-11-98
L/C		400.00		400.00		400.00			
Term Loan		159.00		159.00		159.00			
Overdraft		100.00		100.00		100.00			
Bank Guarantee		200.00		200.00		200.00			
IBP		450.00		450.00		450.00			
Total		**1779.00**		**1779.00**		**1779.00**			
C.C.(Hypo)	30-10-1997	750.00	25-11-1997	750.00	20-12-1997	750.00	22-11-1998	22-11-199	
L/C	30-10-1997	400.00	25-11-1997	400.00	20-12-1997	400.00	22-11-1998	22-11-1998	30-12-1998
IBP	30-10-1997	450.00	25-11-1997	450.00	20-12-1997	450.00	22-11-1998	22-11-1998	
Guarantee	30-10-1997	20.00	25-11-1997	20.00	20-12-1997	20.00			
Term Loan	30-10-1997	150.00	25-11-1997	150.20	20-12-1997	150.20			
Overdraft	30-10-1997	100.00	25-11-1997	100.00	20-12-1997	100.00			
Total		**1870.00**		**1870.20**		**1870.20**			
C. C. Hypo	01-03-1999	1000.00	5-5-1999	1000.00	2-8-1999	1000.00			630.77
L/C	01-03-1999	500.00	5-5-1999	500.00	2-8-1999	500.00			325.36
IBP	01-03-1999	450.00	5-5-1999	400.00	2-8-1999	450.00			330.93
Guarantee	01-03-1999	20.00	5-5-1999	20.00	2-8-1999	20.00			33.73
Overdraft	01-03-1999	100.00	5-5-1999	100.00	2-8-1999	100.00			99.60
Term loan	01-03-1999	–	5-5-1999	–	2-8-1999	–			140.08
Total		**2070.00**		**2070.00**		**2070.00**			**1560.39**

Table 6.46 Continued

Nature of loan	Borrowers application		Branch Recommendation		Head Office Sanction		Outstanding	Expiry date	
	Date	Amount	Date	Amount	Date	Amount	Date	Amount	Date
C.C.(Hypo)	25-06-2000	1350.00	20-7-2000	1350.00	10-10-2000	1350.00	23.6.01	2193.25	3-7-2001
L/C	25-06-2000	700.00	20-7-2000	700.00	10-10-2000	700.00			
IBP	25-06-2000	700.00	20-7-2000	700.00	10-10-2000	700.00			
Overdraft	25-06-2000	150.00	20-7-2000	150.00	10-10-2000	150.00			
Guarantee	25-06-2000	46.00	20-7-2000	46.00	10-10-2000	46.00			
Term Loan	25-06-2000	175.00	20-7-2000	175.00	10-10-2000	175.00			
Total		**3121.00**		**3121.00**		**3121.00**			
Working capital loan	04-5-2002	2366.60	30-6-2002	2366.60	4-11-2002	2366.60	4-11-2002	3674.00	
Block A/C		1354.90		1354.90		1354.90			31-12-2003
Total		**3721.50**		**3721.50**		**3721.50**		**3674.00**	
Interest free block A/C	8-1-2004	2200.00	08-1-2004	2295.00	27-04-2004	2295.00	26-8-2004	3807.97	
Renewal of working capital loan		1400.00		1400.00		1400.00			
Total		**3600.00**		**3695.00**		**3695.00**			
Renewal of working capital	30-11-2004	1400.00	06-12-2004	1400.00	26-12-2004	1400.00	–	–	31-12-2005
Block A/c		2295.00		2295.00	26-12-2004	2295.00	7-3-2005	3788.56	
Total		**3695.00**		**3695.00**		**3695.00**		**3788.56**	

Source: Credit file

6.7.7 Performance analysis: M. Group performances are analyzed in the following subsections like (i) Excess drawings, (ii) Performance Evaluation, (iii) Sub-unit performance.

6.7.7.1 M. Group Excess Drawings: It is found in the file that the bank's head office sought explanation on 23-06-2001 to the branch for allowing excess drawing in favor of M. group. Group excess drawing is presented in the table below:

Table # 6.47
Shows the Excess Drawings of M. Group

(Tk. in lac)

Name of the unit	Limit	Drawings	Excess drawings	Percentage
M. Pine Paper Ltd.	50.00	476.06	426.06	852%
M. Paper Industries Ltd.	50.00	422.65	372.65	745%
M. Enterprise Ltd.	350.00	1294.54	944.54	270%
Total	**450.00**	**2191.25**	**1741.25**	**387%**

Source: Credit file

Table shows that percentage of excess drawings is about 387% of the approved amount.

6.7.7.2 Comparison between M. group actual performances with estimated performance of M. Paper Industries Ltd. Comparison of M. group actual performance with estimated performance of M. Paper Industries Ltd. is presented in the table below:

Table # 6.48
Shows the comparison between actual performances of M. group and estimated performance of M. Paper Industries Ltd.

Basis of Comparison	Actual Performance of M. Group			Estimated performance of M. Paper Industries Ltd.	
	91–92	92–93	93–94	94–95	95–96
Assets Turnover(times)	1.58	1.57	1.45	1.77	1.61
Gross Profit to Sales (%)	13.14	11.03	11.90	27%	28%
Net Profit to Sales (%)	3.53	2.71	2.30	17.80%	19.6%
Return on Equity (%)	13.88	11.88	9.18	112.76	63.38

Source: Credit file

The analysis shows that estimated performance of M. Paper industries Ltd. is very good compare to the performance of the group. Return on equity of M. group actual performance is 9.18% in the year 1993-1994 but estimated return on equity of M. Paper Industries Ltd is 112.76% in the year 1994-95. It is appeared overestimate rate of return on equity.

6.7.7.3 Actual performance of various unit of M. Group: Actual performance of various units of M. Group is shown in the table below:

Table # 6.49
Shows the Actual Performance of various unit of M. Group

Particulars	M. Enterprise Ltd.			M. Paper Industries Ltd.			M. Fine Paper Ltd.	
	1996–97	97–98	98–99	1996–97	97–98	98–99	97–98	98–99
Net Profit (Tk.in lac)	–	165.90	165.95		26.00	50.77	39.73	201.52
Receivables(Tk. in lac)	–	63.14	124.12		140.94	(38.10)	–	–
Inventory Turnover(days)	592	424	439	321	94	21	28	58
Assets Turnover(times)	0.20	0.41	0.45	0.48	0.68	0.79	3.20	2.80
Net Profit to Sales (%)	1.95	3.18	7.48	12.00	1.41	1.85	2.72	8.78
Return on Equity (%)	0.64	2.12	5.20	10	1.7	3.26	282.27	112.61

Source: Credit file

By analyzing the table it is found that performances of M. Enterprise Ltd. and M. Paper Industries Ltd. are not good but return on equity of M. Fine Paper Ltd is very high and it appears abnormal comparative to other units.

6.7.8 Handling Problem loan: For handling this problem loan, the bank taken the following steps:

(1) After allowance of huge excess drawings, the bank's head office several times gave borrowers and the branch management reminders to adjust the excess drawings. But they failed to do so. 04-05-2002 borrowers applied to the bank to transfer the excess drawings to an interest free block account and proposed that it would be paid by yearly installment within 10 years. The bank's board of directors in their meeting held on 4-11-2002 resolved that borrowers had to deposit Tk.652.00 lac as down payment of rescheduling and after deposit of the down payment; the rest amount Tk1204.00 lac would be rescheduled.

(2) The branch informed the borrowers about the conditions of rescheduling. Borrowers declined to accept the decision and again applied to the bank to reschedule the loan account. Board of directors of the bank in their meeting held on 31-03-2003 rescheduled the excess drawings on PAD account. According to the rescheduling, borrowers had to deposit 5% of total loan amount as down payment. The rest amount would be paid by monthly installments of Tk.25.00 lac plus 10% interest within 5 years. Board also gave borrowers deadline of 30-6-2003 to bring down the excess drawings of other accounts within limit.

(3) Borrowers failed to bring down the excess drawings of other accounts within limit and again on 27-04-2004 and on 26-12-2004 bank's board rescheduled the excess drawing of Tk.2295.00 lac. The board also transferred excess drawings to a four years interest free block account and resolved that it should have to be paid by quarterly installments of Tk100.10 lac each within 8 years.

6.7.9 Recovery of Loan: It was a both short and long-term loan. Continuous deposit and withdraw was of the nature of short term loan. After rescheduling the loan, four (4) installments (Tk.100.10 × 4= Tk.400.40 lac) were due up-to 7.03.2005. Out of which, borrowers deposited Tk.215.20 lac only.

6.7.10 Analysis and Findings: By analyzing the case, the following facts are found:

6.7.10.1 Credit Investigation: It is evident from file that the credit officer paid visits to the factory site and assessed the value of the factory land, building and machineries. Evidences regarding payments of creditors; collection of debtors; opinions of creditors and competitors are not available in the file. The credit officer failed to investigate and collect the evidence of income tax payment of the sponsor directors. It is found in the file that the group has been enjoying credit facilities from S. Bank for a long time. But in feasibility report the credit officer wrote that borrowers yet not received any loan from any bank. CIB report is not available in the file. It is necessary to verify the income tax payment of borrowers, but in feasibility report the credit officer commented that the group had been enjoying tax holiday. Payment of income tax is necessary to asses the creditworthiness of the borrowers. But the credit officer commented on the tax payment of the group. It might be for the ignorance or avoidance of the credit officer. In CIB report and in trade checking column, the credit officer wrote that the company had no liability to other bank. Evidences regarding the investigation of the value of the assets and liabilities of sponsor directors and assessment of the character of the sponsors are not found in the file.

6.7.10.2 Credit Analysis: Borrowers applied for loan in plain paper on 17.01.1994 and also in the bank prescribed form on 13.02.1994. The branch prepared the credit proposal on 12-02-1994 and sent it to head office on 16-02-1994. Date of application and preparation of credit proposal shows that the credit officer prepared the credit proposal before the receipt the application in bank's prescribed form. The credit officer prepared credit proposal and sent it to head office within 03 days. It is impossible and appears manipulated.

6.7.10.3 Anomalies between the information contains in the branch credit proposal and borrowers application: The following anomalies between the branch credit proposal and borrowers application are detected in the case study:

(1) Branch credit proposal contained the information that company will go into commercial operation within 2/3 months. Sponsors already construct the factory building and install the machineries on their own land and from their own fund without taking any loan from any other banks. But it is found in the feasibility study

that company was needed long term bank loan of Tk.1345.46 lac which included Tk.1085.41 lac for procurement of fixed assets and Tk.260.41 for interest during grace period. But borrowers applied for L. S. M. (Loan against Secured Mortgage) of Tk.700.00 lac only.

(2) In the feasibility study, it is mentioned that owner's equity of Tk.640.20 lac was the only means of finance. But the branch credit officer in the credit proposal commented that borrowers already spent Tk.1200.00 lac from their own part. It was inconsistent with the branch credit proposal and borrowers application.

(3) In a plain paper, borrowers applied for a loan of Tk.1700.00 lac but later in bank's prescribed form loan application submitted for Tk.2125.00 lac.

(4) In a plain paper, borrowers applied for working capital loan only. But later in bank's prescribed application form, it is found that borrowers applied for both working capital loan and term loan.

6.7.10.4 Anomalies between the branch and the head office credit analysis: Some anomalies between the branch credit proposal and the head office board memo are presented in the table below

Table # 6.50

Shows the Anomalies between the Branch and the Head Office Credit Analysis

Particulars		Branch Office	Head Office
Paid up Capital		Tk.17.00 lac	Tk.17.00 lac
Total shareholders fund		–	Tk.14.20 lac
Loans from shareholders		–	Tk.5501.00 lac
Total shareholders fund		Tk.640.00 lac	Tk.564.28 lac
Liabilities		Nil	Tk.84.00 lac
Gross profit to sales	94–95 95–96	24% 24%	27% 28%
Operating profit to sales	94–95 95–96	21% 21%	17.80% 19.60%
Current Ratio	94–95 95–96	2.01 2.38	0.81 1.44
Quick Ratio	94–95 95–96	1.88 2.24	0.10 0.61
Value of Land, Building & machinery		Tk.2800.00 lac	Tk.1448.13 lac

Source: Credit file

It is observed that information in the branch credit proposal and the head office credit analyses were incoherent. From this it can be concluded that all figures are manipulated.

6.7.10.5 Demand, Supply, Demand Supply Gap and Cost Comparison: In the branch credit proposal, the credit officer expected that demand of the product would increase with the growth of industry in the country. But he failed to supply any statistics in favor of his expectations. He commented that the cost of the product would be lowerer, because the company would use waste paper as 20% of its total raw materials. But he did not mention the cost of the existing competitor's product and their capacity. He also did not consider the production of up-coming industries to determine the demand supply gap.

6.7.10.6 Cash flow Analysis: It is found in the branch credit proposal that cash surplus of the company would be Tk.260.41 lac, Tk.277.29 lac and Tk.467.75 lac in the first, second and fifth financial year. The huge idle cash surplus does not indicate the efficient management of fund. But the credit officer commented in the feasibility report that the sponsors were experienced and efficient in this line of business. It appears motivated appraisal.

6.7.10.7 Liability of Sister Concern: In loan application form, borrowers declared that sister concerns of this unit had no liability to any bank. But it is found in the branch credit proposal that two existing factories land, building and machinery were mortgaged to S. Bank.

6.7.10.8 What went wrong? It is evident from the file that borrowers had been enjoying credit facility from S. Bank B. B. Avenue branch since long time. Informally, M. D. of the bank proposed the borrowers to borrow from his bank and to repay the existing loan of S. Bank. Borrowers promised the M.D. of the bank that they will repay the existing loan of the group after getting loan from the bank. The bank sanctioned the loan but borrowers failed to fulfill their commitment. It is a misconception in the credit that "the borrowers who cheat another would not cheat you". The credit officers ignored this misconception.

6.7.10.9 Review and Monitoring: After sanctioning the loan, the prime function of the credit officer is to continuous review and monitors the performance of borrowers to ensure the safe return of his investment. It is found in the file that the credit officer estimated returns on equity were 112% and 63.88% of M. Paper Industries Ltd. for the financial years 1994–95 and 1995–96. But in the years 1997, 1998 and 1999, the actual returns on equity were 10%, 1.7% and 3.26%. Estimated inventory turnovers were 85 days and 81 days for the year 1994, 1995 whereas actually it was 321 days in the year 1997. Estimated assets turnovers for the year 1994 and 1995 were 1.77 and 1.61 times respectively, but actually in 1997 and 1998 these were 0.48 and 0.68 times. Performance analyses show that these were unsatisfactory. Despite of poor performance the bank approved several renewals and enhancements of loan limit in favor of the group.

6.7.10.10 Signs of Bad Loan: The following bad loan signs are found in the case:

(1) It is found in the file note dated on 17.06.1999 that according to BB loan classification rules, four loan accounts of borrowers in S. Bank were classified as irregular and one as substandard.

(2) A letter sent by Bangladesh Bank BRPD is found in file. In this letter, BB informed the bank that A. Tasem, the managing director and the main sponsor director of the group was a defaulter of a loan amount of Tk.33.00 lac, and his total dues were Tk.234.00 lac. A case was filed against him on 24.04.1995.

(3) Dhaka custom office served a show cause notice to the group for evading custom duty of Tk.509.77 lac. Custom office advised the bank not to make any foreign business deal with borrowers.

6.7.10.11 Legal Action against Borrowers: After borrowers had failed to fulfill the commitment and to repay the loan as per agreement, the bank's board of directors on 26.05.2005 resolved that legal action should have been initiated against borrowers if they fail to deposit two consecutive installments. Branch hast yet initiate any legal action against borrowers though they failed to deposit 04(four) installments consecutively.

6.7.10.12 Actions against the Credit officer and the Branch Manager: The head office of the bank several times sought explanations to the branch management who and why allowed excess drawings to borrowers. The branch management gave its explanation. The branch existing employees informed the researcher that, the bank management dismissed two branch managers with an equivalent rank of D. G. M. from their job and filed criminal cases against them. Cases are now at the hearing stage.

6.8 CASE STUDY 7

Name of the Company : **M/S M. Tannery Ltd.**

Name of the Financing Institution : **Rupali Bank Ltd**

6.8.1 History of the Company: M/S M. Tannery Ltd., a private ltd. company established on 20-04-1983 for manufacturing and exporting leather products. The board of directors of the company was consisted of six members, where all were the family members. On 02.03.1983, company opened an account and had been enjoying working capital facility since 1984. The loan account was renewed and enhanced several times from 1984 to 1990. In 1990 total loan stood at Tk.155.00 lac. Company suspended its transaction with the bank in 1991. In 1995 borrowers applied to the bank to sanction them fresh credit to rehabilitate the company; to waive interest; and to reschedule the exiting loan. The board of directors of the bank in their meeting waived interest amount of Tk.74.83 lac; created a block account for the remaining interest of Tk.24.96 lac; and principal amount of Tk.155.00 lac totaling Tk.179.96 and rescheduled this. According to rescheduling condition, interest would be charged at bank rate and it should have been paid by 24 quarterly installments within six years after one year grace period. The bank's board also sanctioned additional working capital loan of Tk.75.00 lac and term loan of Tk.85.00 lac to rehabilitate the company. From 1995 to 2004, the bank made several renewals, enhancements and rescheduling of the loan. The bank gave several opportunities to the borrowers but they failed to repay the loan. At last on 28-3-2004, the bank decided to file a case under Arth Rin Adalat 2003 and accordingly the branch's credit office on 29.4.2004 filed a case in the Artha Rin Adalat 2003 for the bank's claim of Tk.1285.52 lac

6.8.2 Feasibility report: Feasibility study report is not available in the file.

6.8.3 Facility Sought by borrowers, Bank's Approval and Disbursement, Renewals, Enhancements and Rescheduling of Loan: Facility sought by borrowers, bank approval and disbursement, renewals, Enhancements and rescheduling of loan are presented in the table below:

Table-6.51

Shows the Facility Sought, Bank Approved and Disbursement, Renewal, Extension and Rescheduling of Credit

(Tk. in lac)

Nature of Credit	Borrowers Application		Branch Recommendation		Head office Sanction		Expiry Date
	Date	Amount	Date	Amount	Date	Amount	
C.C (Hypo)	1995	10.00	1995	10.00	1995	10.00	1995
C.C.(Pledge chemical)	1995	15.00	1995	15.00	1995	15.00	1995
C.C.(Pledge leather)	1995	50.00	1995	50.00	1995	50.00	1995
Term loan	1995	85.00	1995	85.00	1995	85.00	1995
Total		**160.00**		**160.00**		**160.00**	
C.C. (Hypo)	1996	20.00	1996	20.00	1996	20.00	1996
C.C.(Pledge chemical)	1996	30.00	1996	30.00	1996	30.00	1996
C.C.(Pledge leather)	1996	150.00	1996	150.00	1996	150.00	1996
Eid Advance	1996	150.00	1996	150.00	1996	150.00	1996
Total		**350.00**		**350.00**		**350.00**	
C.C(Pledge)	30-10-97	600.00	2-11-97	600.00	3-3-1998	295.00	3-3-1999
Term loan	30-10-97	133.00	2-11-97	150.00	3-3-1998		
Total		**833.00**		**850.00**		**295.00**	
Eid Advance	3-3-98	500.00	3-3-98	300.00	–		–
Total		**500.00**		**300.00**			
C.C(Pledge)	20-9-98	400.00	20-9-98	225.00	07-02-99	200.00	30-12-1999
C.C(Hypo)	20-9-98	120.00	20-9-98	50.00	07-02-99		
C.C.(Chemical)	20-9-98	350.00	20-9-98	50.00	07-02-99		
Term loan	20-9-98	200.00	20-9-98	1250.00	07-02-99		
Total		**1070.00**		**450.00**		**200.00**	

Table 6.51 continued

Nature of credit	Borrowers application		Branch Office recommendation		Head office Sanction		Expiry Date
	Date	Amount	Date	Amount	Date	Amount	–
Eid Advance	14-2-1999	500.00	18-3-1999	300.00			
Total		**1100.00**		**500.00**			
C.C(Hypo)	18-8 99	600.00	29-5-01	600.00	11-6-01	200.00	
C.C(Pledge)		300.00		300.00		150.00	
Term loan		150.00		150.00		85.00	
C.C(Hypo) segregating						572.00	
Total		**1050.00**		**1050.00**	–	**1007.00**	
Working Capital	01-7 02	200.00	03-8-03	200.00			

Source: Credit file

It is clear from the table that in the year 1995, borrowers applied for working capital loan of Tk.160.00 lac. The bank's branch recommended for the same amount and the bank's board also sanctioned the same amount. But after that, borrowers applied for enhancing of their loan limit but bank's declined to sanction the amount they applied for. In the year 1998, borrowers applied for a loan of Tk.1007.00 lac. The branch recommended for Tk.450.00 lac but the board sanctioned only Tk.200.00 lac. After 1998, borrowers several times applied to sanction them additional loan, renewals and for enhancing the loan limits but the bank's board of directors declined to sanction additional loan, renewal and enhancement..

6.8.4 Handling Problem Loan: The following steps were used by the credit officer to handle this bad loan:

(1) In the year 1995, borrowers applied to the bank to waive interest and to reschedule the loan account. The bank's board of directors waived interest of Tk.74.83 lac; rescheduled the principal of Tk.155.00 lac and interest of Tk.24.96 lac. According to rescheduling, borrowers should have been paid the principal amount by 24 quarterly equal installments within six years after one year grace period and the interest amount of Tk.24.96 lac should have to be adjusted from export bills @ 5%.

(2) Borrowers failed to repay the loan and they again applied to the bank for rescheduling the loan. The bank board on 17-07-2001 approved rescheduling.

According to rescheduling, the bank's board transferred total outstanding interest of Tk.572.00 lac to C. C. (Hypo) segregation A/C, and resolved that: C. C. (Hypo) segregation A/C should have to be paid by quarterly equal installments within 30.6.2009; term loan of Tk.85.00 lac by equal quarterly installments within 31.5.2009 after depositing of Tk.21.82 lac as down payment. The board also renewed C. C. (Hypo) loan of Tk.200.00 lac and C. C. Eid advance of Tk.150.00 lac.

(3) Legal Action: After 20 years of loan sanction, the bank management board and the credit committee on 28.3.2004 decided to file a suit against borrowers. The branch on 29.04.2004 filed a suit in the Artha Rin Adalot- 2003 for bank's claim of Tk.1285.52 lac

6.8.5 Recovery of Loan: Borrowers failed to repay the loan as agreement. The bank recovered Tk.10.55 lac from borrowers export bills; Tk.37.00 lac from installments and Tk.21.00 lac from down payment of rescheduling totaling Tk.71.55 lac.

6.9 CASE STUDY 8

Name of the Company : M/S L. Footwear Ltd.

Name of the Financing Institution : Rupali Bank Ltd.

6.9.1 History of the Case: M/S L. footwear Ltd., a public limited company was established to manufacture and to export leather shoes. The owners of the company applied on 28-01-1996 to the bank for term loan of Tk.500.00 lac. The estimated financing need was Tk.1032.00 lac and the sources of finance were: bank loan Tk.500.00 lac; interest during construction period (IDCP) amounted to Tk.55.22 lac; sponsors contribution Tk.235.00 lac; public issue amounted to Tk.235.00 lac and director's loan was Tk.6.78 lac. The bank's branch sent this credit proposal to the head office on 08.02.1996 and management board of the bank in their 357th & 358th meeting held on 21.09.1996 sanctioned the loan. The loan was segregated as a foreign currency loan of Tk.398.39 lac; part cost of civil construction of Tk.51.06 lac; and interest during construction period was Tk.50.55 lac. The company started its commercial operation on 16.04.98. According to the repayment schedule of loan, the first installment fell due on 10.10.98, after six months of its commercial operation. But borrowers failed to repay the loan and the bank on 16.06.2000 classified the loan A/C. After classifying the loan account, on 06.02.2001 borrowers applied to the bank to reschedule the loan account and to sanction an additional loan. The branch sent a proposal to the head office to reschedule the existing loan; to sanction a fresh back to back L/C limit of Tk.250.00 lac; and a packing credit of Tk.50.00 lac. The branch informed the head office that borrower's loan was termed unclassified though Bangladesh Bank inspection team earlier classified the loan as bad and loss category. On 04.03.2002, the board of directors of the bank rescheduled the term loan A/C; sanctioned back to back L/C limit of Tk.100.00 lac and packing credit up-to 10%. After rescheduling the loan, borrower failed to deposit the installments and became defaulters. On 30.10.2003, total outstanding installments stood at Tk.380.20 lac. Out of total overdue installments, borrowers deposited only Tk77.42 lac. Again borrowers applied for rescheduling the loan A/C and on 05.05.2004 the bank's board in their 600th meeting rescheduled the loan A/C and resolved that if borrowers had failed to deposit two consecutive installments, the branch could without approval of the head office take the legal actions against the borrowers. Total overdue on 30.05.2005 stood at Tk.109.82 lac in term loan account, Tk. 61.07 lac in principal loan account, Tk.15.19 lac in interest on term loan block account and Tk.1.24 lac on another interest free term loan block account. Branch has not yet taken any legal action. Borrowers again applied to the bank for rescheduling the entire loan account.

6.9.2 Directors of the Company

Q. Tulfiquer: Q. Tulfiquer, the managing director of the company an undergraduate, served 11 years as police officer and an expert in poultry farming. He was 58 years old, traveled several times India and Pakistan to visit his relatives. He was the managing director of K. A. Complex Ltd. Q. Tulfiquer's total assets was Tk.144.00 lac and liabilities Tk.12.50 lac to Bangladesh Krishi Bank (BKB). He declared that his income and expenditure for the year 1994-95 were Tk.11.00 lac and Tk.8.00 lac respectively. Evidence of income tax payment was not available in the file.

Mrs. S. Sultana: Mrs. S. Sultana, wife of M. Tulfiquer, was the chairman of the company. She is a matriculate, 46 years old, traveled India and Pakistan to visit her relatives. She was also the chairman of the K. A. Complex Ltd. Her assets and liabilities were Tk.109.00 lac and Tk.8.75 lac respectively in the year 1994-95. She invested Tk.90.00 lac in her existing business. Mrs. S. Sultana declared that her annual income in the year 1994-1995 was Tk.11.00 lac and expenditure Tk.3.00 lac. No evidence regarding income tax payment was found in the file.

Q. R. Ahamed: Q. R. Ahamed, son of M. Tulfiquer, the director of the company was a Bachelor of Science. He a 26 years old, traveled North America, Europe, and Middle East for study. He did not engage in any occupation. As per his declaration in the application, he had no assets and liabilities.

Q. A. Ahamed: Q. A. Ahamed, the director of the company was a son of M. Tulfiquer, a Bachelor of Arts. He 30 years old traveled North America, U. K. and Asian Countries. He is a director of the KACL and the proprietor of Tupreme Traders. Q. A. Ahamed's assets were valued at Tk.35.00 lac and liability was Tk.3.75 lac with BKB. As per application form, his total income for the year 1994-95 was Tk.3.00 lac. He paid no income tax.

S. Naz : S. Naz, the director of the company, an M. A., served in a non governmental organization. She 29 years of age traveled, India and Pakistan. S. Naz assets were valued at Tk.16.00 lac with no liabilities. Her yearly income and expenditure were Tk.2.40 lac and Tk.1.00 lac respectively. No evidence of income tax payment is found in the file.

6.9.3 Borrowers Feasibility Study: Borrowers prepared a feasibility study. In their feasibility study they analyzed some aspects which are presented in the following subsections:

6.9.3.1 Estimated cost and means of finance of the Company: The following table shows the estimated cost and means of finance of the company.

Table # 6.52
Shows the estimated cost and means of finance of the Company

(Tk. in Lac)

Estimated Cost of the Company		**Means of Finance**		**Percentage**
Cost of Fixed Assets	962.00	Bank loan	500.00	48.45%
Net working capital	70.00	Deferred payment of IDCP	55.22	5.35%
		Sponsor contribution	235.00	22.77%
		Public Issue	235.00	22.77%
		Directors- Loan	6.78	.66%
Total cost	**1032.00**	**Total Debt and Equity**	**1032.00**	100%

Source: Credit file

It is observed in the table that debt equity ratio is 55: 45.

6.9.3.2 Forecasted Earnings of the company: Forecasted earnings of the company are presented in the table below:

Table # 6.53
Shows the Forecasted Earnings of the company

Particulars	**1st year**	**2nd year**	**3rd year**	**4th year**
Sales	1550.82	1767.94	1908.96	1966.87
Cost of Goods Sold	1229.00	1400.08	1510.81	1523.31
Earning before interest and tax	128.68	200.72	223.90	222.47
Gross Profit to Sales (%)	21	21	21	21
Operating Profit to Sales (%)	16	17	17	16
ROE (%)	32	29	22	19
ROCE	22	21	21	19

Source: Credit file

Table shows the company's for four years forecasted profit. It is observed in the table that gross profit to sales is 21% in all the four years. Forecasted figures were encouraging but it is appeared cook.

6.9.3.3 Fund flow Statements: Fund flow statement showed that forecasted surplus cash flows were Tk.117.71 lac, Tk.237.70 lac, Tk.322.45 lac and Tk.416.06 lac respectively for the 1st to 4th financial years.

6.9.4 Feasibility Study Report: After receiving the application for, the credit officer prepared a feasibility report and it contained the following aspects:

6.9.4.1 CIB Report: Letter was sent to BB but no CIB report is found in the file.

6.9.4.2 Banker's opinion: The credit officer sent 16 letters to different banks on 12.03.1996 but the credit officer did not receive any opinion from any bank.

6.9.4.3 Estimated Cost of the Company and Means of Finance: The following table shows the estimated cost of the company and means of finance:

Table # 6.54
Shows the estimated Cost of the Company's and Means of Finance

(Tk. in lac)

Estimated Cost of the Company		Means of Finance		Percentage
Cost of Fixed Assets	791.31	Bank loan	500.00	55.17%
Net working capital	115.00	Sponsor contribution	204.66	22.58%
		Public Issue	201.65	22.25%
Total cost	**906.31**	**Total Debt and Equity**	**906.31**	100.00%

It is clear from the table that the credit officer estimated cost is lowerer than borrower's estimate (Borrowers estimate was Tk.1032.00 lac, where the credit officer estimate was Tk.906.31 lac). But debt equity ratio is same in two cases (It is 55: 45).

6.9.4.4 Management Ability: In this section of feasibility study report, Bio-Data, assets and liability position of borrowers are available. It is found that Bio-Data and assets and liabilities of borrowers were same as borrowers' application.

6.9.4.5 Assessment of the Value of Land: The factory land was inspected and assessed by the head office inspection team. They assessed the value of land as

Tk.16.25 lac and borrowers declared it as Tk.40.00 lac. Which was 2.5 times higher than the assess value

6.9.4.6 Production Volume: The company had the plan to produce leather shoe-1000 pair per day and 3,00,000 pair per year.

6.9.4.7 Cost of Machinery: The credit officer estimated that the cost of machinery would consist of Foreign Machinery Tk. 398.39 lac + Local Machinery 58.00 lac = Total Tk.456.39 lac.

6.9.4.8 Financial Analysis: In financial analysis, the credit officer analyzed the following aspects:

6.9.4.8:1 Demand: No figure is available in the file about demand but the credit officer commented that:

> There may be a scope that, the world market of leather goods, particularly leather shoes will gradually turn in favor of developing countries like Bangladesh.

6.9.4.8.2 Profitability: Company's forecasted profitability is presented in the table below:

Table # 6.55
Shows the Forecasted profitability of the company

(Tk. in lac)

Particulars	1st year	2nd year	3rd year	4th year
Sales	1558.95	1756.42	1894.37	1900.27
Cost of Goods Sold	1297.31	1460.82	1574.71	1586.73
EBIT	56.60	88.84	140.80	145.61
DSCR(times)	1.47	1.30	1.71	1.83
Gross Profit to Sales (%)	17	17	17	16
Operating Profit to Sales (%)	12	12	12	11
Net Profit after Bond Purchase (%)	3	4	6	6
FRR = 25%, BCR = 1.6%, NPV = 45133, Cost of capital 15%, Initial capital outlay Tk.737.76 Lac				

Source: Credit file

From table it is clear that profitability percentages are encouraging but the same rates over the years are appeared cook figures.

6.9.5 Sanction of the Loan: The bank's board in their 357th and 358th meeting held on 21.06.1996 sanctioned a term loan of Tk.500.00 lac and it was segregated as; local currency loan Tk.449.45 lac and deferred payment of interest during construction period Tk.50.55 lac.

6.9.6 Disbursement Schedule: In sanction letter, the bank included the condition that Tk.398.39 lac should have to be disbursed against L/C to import machineries and the rest of Tk.51.06 lac by equal quarterly installments of Tk.10.212 lac each for completion of the construction work.

6.9.7 Repayment Schedule: With the loan sanction letter, the bank included a repayment schedule of loan. According to repayment schedule, total loan should have to be paid by 22 equal quarterly installments of Tk.20.43 lac each with interest accrued thereon. Loan repayment would start after twelve months of opening L/C to import machinery or 6 (six) month after the commercial operation of the company whichever is earlier.

6.9.8 Procurement of Machineries: To procure machineries, the bank invited an international tender. In tender bidding "Challenge Chemical and Technology" offered the lowest price. Tender documents showed that selected bidder failed to mention the name of the country of origin and the models of the machines but this bidder was selected to supply the machineries. Later it was found in the file that, the supplier of the machineries was a joint venture partner of the company.

6.9.9 Facility Sought by Borrowers, Bank Sanctioned and Disbursement: How much loan sought by borrowers, bank sanctioned and disbursement are presented in the table below:

Table # 6.56
Shows the Facility Sought by Borrowers, Bank Sanctioned and Disbursed

(Tk. in Lac)

Types of Facility	Borrowers Application		Bank Sanction		Disbursement	
	Date	Amount	Date	Amount	Date	Amount
Term loan	28-01-96	555.22	21.06-96	500.00	Up to- 99	449.25
Back to back L/C	13-9-01	250.00	4-3-02	100.00	–	–
Packing credit	13-9-01	50.00		10%		
Back to back L/C	14-3-02	100.00	23-4-03	100.00	–	–
Packing credit	14-3-02	10%	23-4-03	10%	–	–

Source: Credit file

6.9.10 Handling of problem loan: After detecting this loan as problem loan, the bank adapted the following techniques to handle it:

(1) On 22.12.1999 total overdue installments stood at Tk.175.15 lac. Bank given borrowers several reminders to repay their overdue installments. On 01-02-2000 borrowers applied to the bank for waiver of interest, and for re fixation of installment size and on 13.9.2001 for rescheduling the loan. The bank's board in their 589th meeting held on 4.03.2002 rescheduled the loan. According to the rescheduling, total loan amount should have to be paid by 20 equal quarterly installments of Tk.32.80 lac + interest. The first installment fell due on 4.06.2002.

(2) Borrowers' failed to deposit all installments of rescheduling. On 30.10.2003, total overdue installment stood at Tk.380.20 lac. They deposited Tk.77.42 lac and again applied for rescheduling the loan account. The bank directed borrowers to deposit down payment of rescheduling but they failed to deposit the down payment. Borrowers appealed to the bank to consider various deposits of Tk.77.42 lac as down payment and reschedule the loan. The bank's board in their 660th meeting held on 5.5.2004 rescheduled the loan. The board decided that (i) Principal loan of Tk.449.25 should have to be transferred to a block account, (ii) 9% interest would be charged on it, (iii) It should have to be paid by 28 quarterly equal installments, (iv) Installment size would be Tk.27.43 lac, (v) First installment would fall due on 05.06.2004, (vi) Accrued interest should have to be transferred to a separate interest free block account and it should have to be paid by 28 quarterly installments, (vii) If borrowers fail to repay two consecutive installments, the branch could take legal action without approval of the head office.

6.9.11 Recovery of loan: On 29.06.2000, borrowers deposited Tk.0.20 lac as a token installment payment. From July 2000 to 30.10.2003, borrowers deposited Tk.77.42 lac and from 30.10.2003 to 31.03.2005 Tk.16.43 lac. Total recovery of the loan amounted to (Tk.20.00 lac + Tk.77.42 lac + Tk.16.45 lac) Tk.142.94 lac.

6.9.12 Overdue Installments: Borrowers failed to deposit installments due and total dues are:

Principal loan Block A/C:

Four (4) Installments	Tk.109.82 lac
Less Deposit	Tk.15.19 lac
Overdue	Tk.94.63 lac

Interest Block A/C:

Four (4) Installments	Tk.61.07 lac
Less Deposit	Tk.1.24 lac
Overdue	Tk.59.83 lac

Total overdue Tk.94.63 lac + Tk.59.83 lac = Tk.154.46 lac.

6.9.13 Analysis and Findings: By analyzing the case, the following findings are found:

6.9.13.1 Credit Policy and Portfolio of the Sector: Study of the loan file shows that at the time of feasibility study, the bank's had no written policies regarding sector allocation, disbursement and performance.

6.9.13.2 Credit Investigation: It is found in the file that the bank head office inspection team inspected the factory site and assessed the value of land. The team assessed that the value of factory land at Tk.16.25 lac though sponsors declared the value of land Tk.40.00 lac. It is 2.46 times higher than assessed value. It is found in the sanction letter that loan disbursement should have to be made after receiving satisfactory credit reports from client's bank. The credit officer sent 16 letters to various banks for their opinions about borrowers. But no opinion is found in the file. From the feasibility study it is clear that the credit officer did not collect CIB (Credit Information Bureau) report. It is found in the file that after making some disbursements, Bangladesh Krishi Bank informed the bank that the borrowers were defaulters in their bank. One of the directors of the company owned a business but the credit officer did not made any effort to investigate and to analyze the performances of his business; to collect opinions of their creditors; customers; to judge his dealings and payment behavior. The credit officer also failed to investigate the price of the machineries and to uncover the interest of the tender bidder in the company.

6.9.13.3 Feasibility Study: The followings are available in the credit officer feasibility study:

(1) Management Ability: In this section of feasibility study, Bio-Data, assets and liabilities of the borrowers are available. No comment about management ability is found in the feasibility report.

(2) Demand Analysis: In analyzing demand, the credit officer hoped that the demand of leather product in the world market would gradually turn into favor of the developing countries like Bangladesh. But not statistics were found to support his hope.

(3) Financial Analysis: No evidence is available in the file, how the credit officer forecasted sales and cost of goods sold. It is found in the file that net present value of initial capital outflow would be Tk.737.76 lac though financing need for fixed cost was estimated at Tk.791.31 lac and net working capital Tk.115.00 lac totaling Tk.906.31 lac.

(4) Assets Turnover: It is found in the projected financial statements that assets turnover would be 1.72 times. But borrower's feasibility study showed that their existing business assets turnover is 0.7 times. How the credit officer assessed and believed that the assets turnover of up coming company would be 1.72 times though their existing business assets turnover is only 0.7 times.

(5) Equity Support: Borrowers declared that they would provide Tk.235.00 lac equity capital and Tk.6.78 lac debt capital. But in the feasibility report, the credit officer assessed equity needs at Tk.204.68 lac. Borrowers in their loan application form declared that their net worth is Tk.279.01 lac and individuals net worth calculation are as follows:

Table # 6.57
Shows the net worth of Borrowers

S.L	Name of the Sponsors	Assets	Liabilities	Net worth
1	Md. Tulfiquer	Tk.144.00 lac	Tk.12.50 lac	Tk.131.5 lac
2	Mrs. S. Sultana	Tk.109.00 lac	Tk.8.75 lac	Tk.100.25 lac
3.	Q. R. Ahamed	**Nil**	**Nil**	**Nil**
4	Q. A. Ahamed	Tk.35.00 lac	Tk.3.75 lac	Tk.31.25 lac
5	S. Naz	Tk.16.00 lac	**Nil**	Tk.16.00 lac
Total Net worth				**Tk 279.01 lac**

Source: Credit file

It is clear from table 6.57 that sponsors total net worth was Tk.279.01 lac. It is not clear how they would provide their equity and debt capital of Tk.235.00 lac +Tk.6.78 lac = total Tk.241.78 lac from their net worth of Tk.279.01 lac..

6.9.13.4 Handling of problem loan: After borrowers had failed to repay the loan, the credit officer used the following techniques to handle the loan:

(1) First rescheduling: Borrowers failed to loan as agreement and become defaulters. After defaulted the loan borrowers applied for rescheduling it. After receiving application from borrowers for rescheduling the loan, the branch on 4.10.2001 sent a proposal to the head office by recommending rescheduling the term loan; approval of back to back L/C credit of Tk.100.00 lac; and packing credit of Tk.10.00 lac. It is found in the file note that the branch requested the head office to consider various deposit of Tk.48.89 lac as down payment of rescheduling. After receiving the proposal of the branch, the head office on 8.01.2002 made queries to the branch about classification status of the borrowers, who gave permission to open L/C and how various deposits could be treated as down payment? In reply of these queries, the branch informed the head office that Bangladesh Bank inspection team classified the loan as bad and loss. The branch manager gave permission (without the head office approval) to open L/C, and G. M. (credit of the head office) gave instruction over telephone to treat various deposits as down payment for rescheduling. After receiving this answer, on 04.03.2002, the bank board of directors rescheduled the loan and sanctioned a fresh credit to borrowers.

(2) Second rescheduling: After first rescheduling, borrowers failed to deposit 6 (six) installments and again applied for rescheduling the loan. The bank's branch on 23.06.2003 sent a proposal to the head office for rescheduling the loan. On 05.05.2004, the bank's board of directors second time rescheduled the loan by considering the various deposit of Tk.77.42 lac as down payment of rescheduling.

(3) Third rescheduling: After the second rescheduling, borrowers again failed to deposit several installments and applied for rescheduling. On 30.5.2005, the branch again sent a proposal to the head office for 3rd time rescheduling the loan. But the head office yet not takes any decision.

6.9.13.5 Status of the Loan Account: It is found that after borrowers failure to deposit 12 (twelve) installments, the bank classified the loan on 16-06-2000. Bangladesh Bank inspection team also classified the loan as bad and loss. On 31-3-2005, out of 4 (four) installments, borrowers paid Tk.16.43 lac which was less than 1 (one) installment. Despite of failed to deposit installments, the branch still treating the loan as unclassified.

6.9.13.6 Overdue loan:

Principal Block A/C Installments overdue	Tk.154.46 lac
Principal overdue	Tk.385.07
Interest free Block A/C (15.2675 ×24)	Tk.366.42
Total	Tk.905.95 lac

6.9.13.7 Legal Action: Borrowers failed to deposit 4 (four) installments. The branch did not take any initiative to take legal action, though the bank's board in their 660th meeting resolved that the branch could take any legal initiative against borrowers if they had failed to deposit two consecutive installments without approval of the head office.

6.9.13.8 Administrative Action: The loan was classified several times. The branch failed to classify the loan and to initiate legal action against borrowers. The head office did not take any disciplinary action against the credit officer who was responsible for this bad loan.

6.10 CASE STUDY 9

Name of the Company : Air Sarafat Ltd.

Name of the Financing Institution : IFIC Bank Ltd.

6.10.1 History of the Company: Air Sarafat Ltd. (ASL), a private limited company, was incorporated to operate a Short Take off Landing (STOL) domestic airline in the year 1996. The financing need of the company was estimated at Tk.973.66 lac and the means of finance was segregated as bank loan of Tk.670.00 lac; interest during construction of Tk.52.93 lac; and equity capital of Tk.250.73. The owners of the company applied to the bank for a long term loan of Tk.678.00 lac on 25.06.1996. On 30.12.1996 the bank sanctioned Tk.670.00 lac as long term loan. Borrowers had failed to go in to commercial operation and on 12.11.1997 they applied again to the bank for an additional term loan of Tk.215.00 lac and working capital loan Tk.75.00. The bank on 15.12.1997 sanctioned an additional term loan of Tk.180.00 lac and working capital loan Tk.50.00 lac. The company started its commercial operation on 11.02.1998. After four months of its commercial operation, on 28.6.1998, one aircraft made crash landing on a jute field near Savar and another aircraft declared technically inoperative. After these accidents, the company suspended its operation and informed the bank on 09.08.1998. Borrowers then planed to lease two aircrafts and on 09.08.1998 applied to the bank for an additional loan of Tk.350.00 lac. But the bank declined to sanction the additional loan to lease aircrafts.

Borrowers failed to repay the loan as per agreement. The bank recovered Tk.277.86 lac from an insurance company as insurance claim of the damaged aircraft and Tk.114.77 lac by selling the other aircraft. Borrowers also deposited Tk.10.00 lac as part payment of installments due. The bank totally recovered Tk.393.62 lac. On 03.07.2000, the loan becomes classified. The bank made several rescheduling the loan. On 24.12.2002, borrowers again applied to the bank to transfer their total dues of Tk.890.23 lac to an interest free block account and to reschedule it. The bank again rescheduled the loan and resolved that borrowers should have to pay the loan by 24 equal quarterly installments of Tk.36.88 lac each. Up to 24.5.2005, borrowers did not deposit any installment and overdue amount stood at Tk.227.59 lac. Though borrowers failed to deposit 6 (six) consecutive installments the bank did not classify the loan.

6.10.2 Directors of the Company

Details regarding the educational qualification, experience, assets and liabilities position, existing business performance, net worth of borrowers are not available in the file. It is found in the file that A. V. M. (Rt.) A. C. Khondoker, the chairman of the company was the first air chief of Bangladesh, an active politician and a contestant of parliament election1996. Mrs. N. Alam, the managing director of the company was a retired captain (pilot), of Bangladesh Biman. She was also the director of K. Group. F. Karim and J. Karim were also directors of the company. All were the family members, highly educated and also directors of K. Group. K. Group has been doing business with the bank for long time.

6.10.3 Feasibility report of the Company: Feasibility study report of the company is enumerated in the following subsections:

6.10.3.1 Financial need and means of financing: Financial need and means of financing of the company are presented in the table below:

Table #6.58
Shows the financial need and means of financing of the company

(Tk. in Lac)

Financing need		Means of finance	
Cost of Fixed Assets	960.93	Bank loan	670,00
Net working capital	12.73	IDCP(Interest during construct period)	52.93
		Equity	250.73
Total	**973.66**	**Total**	**973.66**

Source: Credit file

It is observed in the table that company's debt equity ratio is 75: 25

6.10.3.2 Credit Investigation

Evidences of investigation regarding character of the borrowers, corporate performance, capability, competitor's performance, group's creditor's opinions, customers' opinion etc are not available in the file. Some CIB forms are found in the file but no CIB report is available in the file.

6.10.3.3 Credit Analysis

The credit officer prepared a spread sheet[†] and fill up Lending Risk Analysis[†] (LRA) manual in credit analysis. The spread sheet analysis and LRA were as follows:

Table # 6.59
Shows the Spread-sheet Analysis

Particulars	1st year	2nd year	3rd year
ROE (%)	22	26	27
ROI (%)	24	21	18
D/E	0.70	0.60	0.45
DSCR	N/A	2.63	3.54

Source: Credit file

It is observed in the table that the profitability ratios and leverage ratios are encouraging.

LRA: By fill up LRA manual, the credit officer finally commented on the various risks and these are: Business risk---Acceptable, Security risk---Acceptable, Overall risk—Acceptable.

LRA Score: There are various risk columns in the LRA manual. Out of these, the credit officer ticked 23 acceptable business risks grids, 10 acceptable security risks grids and overall matrix B category grid i.e. it is acceptable grid.

Supply Risk: The credit officer assessed risk of equipment, power, and operating expenses as average. How did he assess the average risk without having expertise knowledge about this high-tech sector?

Sales Risk: In sales risk column it is found that the credit officer wrote:

> Data could not be obtained.

Competitive Pressure: In competitor's name column, the credit officer wrote the name of competitor Aero Bengal. But information about competitor turnover, profitability etc were not mentioned. Bangladesh Biman the largest airline is operating in Bangladesh. The market share of Bangladesh Biman and their performance were not considered in assessing competitive pressure of the company.

[†] Spread Sheet is a sheet of presenting comparative financial ratios of a company over the years.

[†] LRA: Lending Risk Analysis is a model of analyzing borrower creditworthiness. It consists of both quantitative and qualitative judgment. By putting the pints in the several areas the credit officer calculates whether the borrower risk is acceptable or not.

Performance Risk: The credit officer assessed the performance risk of the company as average. In the feasibility study, total sales were forecasted on the basis of the Dhaka–Cox's Bazaar route ticket sale. But in LRA the credit officer forecasted that customers' concentration would be 41% in Dhaka–Barisal route.

Forecasted performance of the company: In LRA manual, the credit officer forecasted three years performance of the company. This organization was the sister concern of the K. Group. But the credit officer did not evaluate the performance of K. Group.

SWOT (Strengths, Weaknesses, Opportunities and Threads) Analysis: In the SWOT analysis, the credit officer found two strengths and no weakness of the company though at that time Aero Bengal and Bangladesh Biman were doing same business.

Resilience risk and Management Integrity risk: The credit officer evaluated the resilience risk and the management integrity risk of the company as average.

Security cover risk: The credit officer calculated the present value of the security at Tk.774.64 lac, which was 103% of requested loan. But in risk grid, the credit officer tick on the average grid.

Overall risk calculation: In overall risk measurement, the credit officer tick 7 average risk grid out of major 8 risk components and 29 average risk grid out of 33 various risk components.

6.10.4 Facility Sought by Borrowers, Bank Sanctioned and Disbursement: Facility sought by borrowers, bank sanctioned and disbursement are presented in the table below:

Table # 6.60
Shows the Facility Sought by Borrowers, Bank Sanctioned and Disbursed

(Tk. in Lac)

Types of Credit	Borrowers Applied		Bank Sanctioned		Disbursed	
	Date	Amount	Date	Amount	Date	Amount
Term loan	25.6.1996	670.00	12.30.96	670.00	21.07.97	670.00
Term loan	12.11.97	215.00	15.12.97	180.00	27.4.98	180.00
Working Capital loan	12.11.97	75.00	15.12.97	50.00	–	–
Additional term loan	09.08.98	350.00	23.9.98	25.00	27.9.98	25.00
Guarantee Issue	5.10.97	50.00	–	–	–	–

Source: Credit file

It is observed in the table that bank disbursed entire amount of loan sanction. In the year 1997, borrowers applied for issue guarantee of Tk.50.00 lac but the bank declined to sanction this amount of loan.

6.10.5 Handling problem loan: After turn into non-performing loan, the credit officer used the following techniques to handle this bad loan:

(1) First rescheduling: After borrowers had failed to repay the loan, they applied to the bank for rescheduling the loan and the bank board of directors on 27.10.1998 rescheduled the loan. According to the rescheduling, the entire loan should have to be paid by 26 equal quarterly installments and the first installment fell due on 01.07.1999.

(2) Second rescheduling: After first rescheduling, borrowers failed to deposit the installments and on 17.6.2000 they again applied to the bank for rescheduling the loan. The bank's board of directors on 19.4.2001 again rescheduled the loan and resolved that it would be payable by 28 equal quarterly installments. The board determined the first installment date on 01.10.2000 and installment size Tk.50.50 lac.

(3) Third rescheduling: Again borrowers failed to deposit the installments and applied for rescheduling. On 19.08.2002, the branch sent a proposal to the head office for rescheduling the loan. The bank's board of directors on 24.12.2002, approved the rescheduling. The board decided to transfer entire loan liability to an interest free block account and resolved that it should have to be paid by 24 equal quarterly installments of Tk.36.88 lac each and the first installment fell due on 01-10-2002.

(4) The bank has not yet waived any interest but has not been charging interest on loan account since 2002.

6.10.6 Recovery of Loan: Total recovery of loan is presented in the table below:

Table # 6.61
Shows Recovery of Loan

(Tk. in Lac)

On Account	Date	Amount
Insurance Claim	27.04.1998	277.78
Part payment of Installment	18.11.1999	10.00
Sale proceeds of Aircraft	30.01.2001	124.77
Total		**412.55**

Source: Credit file

It is observed that the bank recovered only 46.16% of the total claim.

6.10.7 Documentation

The loan sanction letter included a condition that personal guarantee of directors and collateral security were to be taken before disbursement. But it is found in the file that borrowers opened L/C on 12.6.1997 and the bank made L/C payment on 21.07.1997 without taking any personal guarantee and collateral security. On application of borrowers on 18.01.1998, the bank waived the collateral requirement and decided that personal guarantee of directors and guarantee of K. Pipe would have to be executed. All directors gave personal guarantee except the chairman of the company. Subsequently borrowers mortgaged their Protirakha Sanchay Patra (PSB) and Bangladesh Sanchay Patra (BSP) worth of Tk.150.00 lac, personal land of Mrs. F. Karim, hypothecated the aircraft, and insurance coverage to the bank.

6.10.8 Financial performance of the company

Audited financial statements of the company showed net loss of Tk.56.50 lac in the year 1996 and it stood at Tk.199.55 lac in 1998. No other financial statements are found in the file.

6.10.9 Analysis and Findings: By analyzing the case the followings facts are found.

6.10.9.1 Credit Policy: It is found in the study that the bank had no written credit policy at the time of the loan sanction.

6.10.9.2 Credit Investigation: It is a highly technical sector. The credit officer made no attempt to investigate the technical feasibility of the company. He made no investigation regarding demand, supply, and no attempt to forecast demand supply gap and did not made no attempt to collect information from borrowers debtors, creditors and customers of the existing businesses of borrowers' to assess the character and capability of the borrowers; to asses financial performance of borrowers existing businesses; net worth of the borrowers as well as the group.

6.10.9.3 Credit Analysis: It is found in the file that four credit officers prepared the feasibility report and analyzed lending risk. No one of them had any technical knowledge about this sector. In feasibility study, credit officers forecasted the sales on the basis of the Dhaka- Cox's Bazaar route ticket sales basis. But in LRA, it is found that customers' concentration would be 41% in Dhaka –Barisal route. No explanation about this was given by credit officers. The credit officer did spread sheet analysis of the company. He measured the ‘Y’ score and ‘Z’ score of the company but no attempt was made to analyze and to measure the ‘Y’ score and ‘Z’ score of the group. The credit officer analyzed the lending risk but sources of information were not mentioned in the file. To fill up the lending risk analysis manual, it is utmost necessary to collect information by investigation. How did the credit officer fill up the LRA manual without making any effort to investigate and to collect information? Three years forecasted profits of the company are found in the LRA manual but the credit officer failed to take in to account the performance of its sister concern. In the sanction letter, the bank imposed a special condition that valuation certificate of borrowers assets should have to be collected from the bank's approved surveyor before disbursement of the loan. But the study found in the file that it was collected after disbursement of the loan. It is a question, without any valuation and assessment, how the credit officer opined in LRA that the realizable value of the security would be 103% of the loan value?

6.10.9.4 Equity Support: Except the chairman, all directors of the company were also the directors of K. Group. It is found in the application form and in the memorandum of association that paid up capital of the company was Tk.200.00 lac. But in the means of finance it is found that the equity capital of the company was Tk.251.73 lac. It is impossible that the equity capital is higher than paid up capital. It is also found in the file that K. group was one of the top ten defaulters of the bank. All directors of K. Group were also the directors of this company. In a situation like this, how it would be possible for them to contribute equity capital?

6.10.9.5 Lending Risk Analysis: According to the risk analysis norm if security covers 75% – 100% of the loan amount it indicates the average risk and if it covers more than 100% it indicates strong risk. The credit officer risk calculation shows that security covers 103% of the loan amount. But he ticked in average risk grid. He also ticked in average column for management integrity risk. But the file shows that except the chairman, all the directors of the company were the directors of K. Group and K. Group was earlier declared as one of the top ten defaulters of the bank. It is certainly a motivated lending risk analysis of the credit officer.

6.10.9.6 SWOT Analysis: In SWOT analysis, the credit officer indicated strengths of the company only and failed to indicate weaknesses of the company. It was a high tech sector. Any failure of the supply of accessories might cause serious disruption in the operation. The Biman Bangladesh as the prime competitor's of the company was not mentioned in the SWOT analysis. Any change in government policy regarding fare, operation of airlines business might threats its operation. Existing private airline Aero Bengal was not performing well. The credit officer did not mention these weaknesses in SWOT analysis.

6.10.9.7 Procurement of Machinery: It is found in the file that before submitting the application form for loan, borrowers made agreement with an aircraft manufacturer. The bank relied on the quotation price of this single company. No attempt was made by the credit officer to verify the actual price of the aircraft. No standard procedure of procurement was followed by the bank.

6.10.9.8 Legal Action: The loan was classified on July 2000. The bank made several rescheduling but borrowers failed to deposit installment regularly. The bank has not yet taken any legal action against borrowers. Moreover, the credit officer informed the researcher that the branch is now considering to send a proposal to the head office for further rescheduling the loan and to waive interest.

6.10.9.9 Disciplinary Action: The file showed that borrowers deported the hypothecated aircraft and sold it without prior permission of the bank. In this connection on 20-8-2000, the head office sent a letter to the branch by seeking explanation how the borrowers could deport the hypothecated aircraft without prior permission of the bank.

6.10.9.10 Fund Diversion: It is found in the financial statements of the company that in the year 1996, the company lent Tk.115.00 lac to K. Galvanized Ltd. How the company lent K. Galvanized Ltd. where the company applied for a loan of Tk.974.00 lac and the bank financed Tk.670.00. It is clear that the company diverts its loan to K. Galvanized Ltd. The company's 1998 financial statements showed that it borrowed Tk.167.00 lac from MOSCO agency Ltd. Why did the company need Tk.167.00 lac?

6.10.9.11 Release of Pledged Assets: It is found in the file that the bank released (PSP and BSP) collateral security of Tk.150.00 lac though the loan was overdue. From release of pledged assets it is proved that the bank management was not interested to protect the bank's interest.

6.11 CASE STUDY 10

Name of the Company : A. Poly Packaging & Printing
Name of the Financing Institution : Pubali Bank Ltd.

6.11.1 Brief History of the enterprise: A. Poly Packaging and Printing a sole proprietorship organization, was established for producing and supplying garment accessories. The owner of the organization has been enjoying credit facilities from the bank's Mohakhali branch without formal credit agreement with the bank since long time. In the year 1999, the borrower formally applied to the bank for working capital loan of Tk.10.00 lac; for L/C guarantee; and for Inland Bill Purchased (IBP). No information regarding assets and liability, performance of the existing business of borrower is available in the file. On 05.10.1999, the branch sent a proposal to the bank's head office by recommending C.C (Hypo) loan of Tk.5.00 lac; L/C limit of Tk.25.00 lac; and IBP limit of Tk.25.00 lac in favor of the borrower. The credit proposal contained information about the borrower net worth, present and forecasted sales figures of his company, and performance with the bank. On 31.10.1999, the branch informed the borrower that the bank head office sanctioned the loan. After loan approval, on 28.11.1999 borrower applied to the bank to transfer his loan account from Mohakhali branch to Motijheel Sena Kalayan Sangstha branch. The head office approved the transfer and the branch transferred borrower's all documents from Mohakhali branch to Motijheel branch. On 10.09.2000, borrower applied to the bank for renewal and enhancement of his loan limit. The branch sent a proposal for renewal and enhancement of the loan limit and the bank's head office approved the renewal and enhancement of the loan limit. In the year 2000 and 2001, the branch allowed borrower's huge excess drawings. After huge excess drawings, the borrower on 02.04.2001 again applied to the bank for renewal and enhancement of his loan limit but the bank's board of directors declined to renew and to enhance the loan. The head office gave borrower and the branch several reminders to adjust the excess drawings. But the borrower failed to adjust the excess drawings and suspended transactions with the bank. The bank's legal adviser on 10.12.2002 served a legal notice to the borrower to repay the loan but the borrower did not response. After serving legal notice on borrower, the bank served a legal notice on to the third party guarantor. The third party also did not response and the bank circulated an auction notice in the local daily to sell the mortgage property. On 31.03.2004, the bank filed a case against the borrower under the Artha Rin Adalat 2003. The case is now in hearing stage.

6.11.2 Proprietor of the Organization: M. Hossain is the proprietor of the organization. Bio-Data of the proprietor is not available in the file.

6.11.3 Feasibility Study: No evidence regarding credit investigation and feasibility study are available in the file. The branch prepared a credit proposal and it contained the followings:

6.11.3.1 Net worth of the Borrower

In the loan proposal, the credit officer calculated the net worth of the borrower and the net worth calculation was such as: Total Assets = Tk.73.00 lac (Cash in hand Tk.2.50 lac + Cash with Pubali bank Tk.3.00 lac + Proprietorship net worth Tk.50.00 lac + Real estate Tk.15.00 lac + Others(not specified) Tk. 2.50 lac) – Total liabilities Tk.1.50 lac = Net worth Tk.71.50 lac.

6.11.3.2 Sales performance of the borrower existing business: Sales performance of the borrower existing business is shown in the table below:

Table # 6.62
Shows the Sales Performance of the Borrowers existing business

Particulars	Actual	Estimated	
	1998-1999	1999-2000	2000-2001
Sales	Tk.52.00 lac	Tk.88.00 lac	Tk.200.00 lac

Source: Credit file

6.11.4 Facility Sought by Borrowers, Branch Recommended and Head office Approved: The facility sought by borrower, branch recommendation and head office approval are presented in the table below:

Table # 6.63
Shows the Facility Sought by Borrower, Branch Recommendations and Head office Approved

(Tk. in Lac)

Nature of loan	Borrower Application		Branch Recommendation		Head Office Approved	
	Date	Amount	Date	Amount	Date	Amount
C.C(Hypo)	-----	10.00	5.10.99	5.00	31.5.99	4.00
L/C(Revolving)	-----	25.00	Do	25.00	Do	24.92
IBP	-----	25.00	Do	25.00	Do	25.00
Total		**60.00**		**55.00**		**53.92**
C.C(Hypo)	10.9.2000	50.00	29.10.00	20.00	22.11.00	10.00
L/C(Revolving)	Do	55.00	Do	40.70		40.70
IBP	Do	75.00	Do	30.00		30.00
L/C(Usance)	Do	U$1.00	Do	U$.75		-----
Total						**80.70**
C.C(Hypo)	02.4.2001	40.00	-----	-----		-----
IBP		60.00	-----	-----		-----
Total		**100.00**	-----	-----		------

Source: Credit file

It is clear from the table that, the head office sanction is lowerer than the borrower's application and the branch recommendation. It is also observed in the table that the head office approved the loan only one time though the branch recommended two times and the borrower applied three times for renewals and enhancing the loan limit.

6.11.5 Monitoring and the Review: No evidence is found in the file about the review of the performance of the borrower. At the time of recommending the renewal and enhancement of loan by the branch, the credit officer calculated the net worth of the borrower, prepared spread sheet analysis by using financial statements figures of one year.

6.11.6 Legal Action: In the year 2001, the bank allowed the borrower huge excess drawings. The borrower several times applied to renew and to enhance the loan limit but the bank declined to renew and to enhance the loan and gave him several reminders to adjust the excess drawings. After refusal of renewal and enhancement of the loan, the borrower stopped transactions with the bank. After giving several reminders to repay the loan, the bank's legal adviser served a legal notice on to the borrower. But the borrower did not response. The bank's legal adviser then on

15.06.2003 sent a legal notice on to third party guarantor and at last on 31.03.2004 filed a case against the borrower in the Artha Rin Adalat 2003.

6.11.7 Analysis and Findings: Findings of the case are enumerated in the following subsections:

6.11.7.1 Credit Investigation: Evidence regarding valuation of mortgage property, assessment of the borrower business performance, trade checking, and collection of opinions of creditors, customers, competitor are not available in the file.

6.11.7.2 Feasibility Study

No feasibility study report was available in the file. The credit proposal contained the calculations of net worth, actual and estimated sales of the borrower business and the performance of the borrower with the bank. The credit officer did not mention the basis of forecasting the sale figures.

6.11.7.3 Monitoring and Review

It is utmost necessary to monitor the borrower performance regularly. In this case, the credit officer failed to monitor and to review the performance of the borrower business.

6.11.7.4 Discrepancy in the branch loan proposal

Table # 6.64
Shows the discrepancy in the branch loan proposals

(Tk. in lac)

Particulars	Actual Sales	Estimated Sales	
	1998-1999	1999-2000	2000-2001
Figures in the loan proposal prepared by the branch on 5.10.1999	52.00	88.00	200.00
Figures in the loan proposal prepared by the branch on 10.09.2000	120.00	130.00	150.00

Source: Credit file

It is shown in the table that the loan proposal of the branch contained information that actual sales figure in the year 1999 was Tk.52.00 lac whereas in the loan proposal of 2000, it was mentioned as Tk.200.00 lac. It is appeared cook.

6.11.7.5 Excess Drawings: It is evident from the file study that at the end of 2000 and the beginning of 2001, the branch allowed borrower huge excess drawings without getting prior approval of the head office. On 14.11.2001, the total outstanding loan stood at Tk.33.74 lac whereas at that time the borrower credit limit was Tk.10.00 lac only. It is clear that the branch management was involved in this malpractice.

6.11.7.6 Legal Action: It is found in the study that the bank legal adviser served a legal notice to the borrower to repay the loan. But the borrower did not response. Then the bank's legal adviser on 15.06.2003 sent a legal notice to the third party guarantor and at last on 31.03.2004 filed a case against the borrower in the Artha Rin Adalat 2003. But the bank did not take any legal action against who allowed the borrower excess drawing.

6.11:8 Conclusions: It is misconception that "repeated customer[†] has little risk". This misconception is hold good in this case. The credit officer was heavily depended on the repeated relationship rather than acute investigation and analysis of the borrower performance. Poor risk assessment, cursory financial analysis, poor review of the performance, and delay in taking legal actions are the causes of becoming the loan as this nonperforming loan.

[†] Repeated customer means the customer who is doing transactions for long time with the bank.

6.12 Presentation of Case Studies Findings: The objective of the case study is to explore the actual credit management process of sample banks in Bangladesh. Individual case and its findings were presented in the various subsections of this chapter. The study believes that cross case presentation would be more appealing to readers. Hence, the study presents a cross case analysis and findings in the following table:

Table # 6.65

Presents Cross Case Analysis and Findings

Findings	Case-1	Case-2	Case-3	Case-4	Case-5	Case-6	Case-7	Case-8	Case-9	Case-10
Aspects investigated by credit officers	Physical inspection of collateral land.	Physical inspection of collateral land.	No investigation was done	Physical inspection of collateral land.	No investigation was done	Credit officers paid visit to factory site	No investigati on was done	.Inspected the factory site and assessed the value of collateral land	No investigat ion was done	No investigatio n was done
No. of aspects investigated	01	01	00	01	00	01	00	01	00	00
Sources used for collecting information	1.Creditiors opinion 2. Bankers opinion	1.Creditiors opinion 2. Bankers opinion	No sources used	No sources used	Long-term financier feasibility study	No sources used	No sources used	No sources used	Surveyor report	No sources used
Number of sources used	02	02	00	00	01	00	00	00	01	00
Aspects analyzed in credit analysis	1.Net worth 2.Management 3.Demand 4.Supply 5.Contributation to G.D.P. 6. Profitability	1.Net worth 2.Management 3.Demand 4.Supply 5.Demand supply gap 6. Cost comparison 7. Sector performance 8. Profitability	1.Net worth 2.Management 3.Demand 4.Supply 5.Demand supply gap 6. Cost comparison 7. Sensitivity 8.Profitability	1.Profitabi lity 2.Profit from the group	1.Net woorth 2.Management 3.Technical aspects 4.Marketing aspects 5. Cash flow 6.Profitability	1.Net worth 2.Management 3.Technical aspects 4.Marketing aspects 5.Profitability	No evidence regarding credit analysis is found in the file.	1.Net worth 2.Management 3.Technical aspects 4.Marketing aspects 5.Profitability	1.Spread-sheet analysis 2.LRA(Lending Risk analysis.	1.Net worth 2.Sales

Table 6.65 continued

Number of aspects analyzed in credit analysis	06	08	08	02	06	05	00	05	02	02
Data used for forecasting future demand, supply etc.	1. Sources of data are not found. 2.Extrapolation method is used for forecasting demand, supply etc.	1. Import data and local production data are used 2.Extrapolation method is used for forecasting demand, supply etc.	1. Projection of per capita cloth consumption in FYPis used for forecasting demand. 2. TCB and EPB forecasting	No basis of forecasting is found.	No basis of forecasting is found.	No basis of forecasting is found.	No basis of forecasting is found.	No basis of forecasting is found.	No basis of forecasting is found.	No basis of forecasting is found.
Profitability forecasted	35%	29%	27%	33%	31%	37%	No calculation is found	25%	24%	No calculation is found
Actual profit/loss	Loss	No production	Not found in the file	12%	Loss	2.30%	8.50%	Not found in the file	Not found in the file	Not found in the file.
Who influenced in sanctioning loan	Politician, Bureaucrats	Politicians	No clue found in the file.	Credit officers	Top bank executives	Top bank executive and politicians	Credit officers	Credit officers	Credit officers and politicians	Credit officers
Frequency of inspection, monitoring and reviewing	8 times	4 times	0	0	01 times	Reviewed at the time of renewal	01 times	0	01 times	0

Table 6.65 continued

Rescheduling	03 times	03 times	04 times	02 times	01 times	03 times	02 times	02 times	03 times	0 times
Disbursement of loan	Tk.180.77 lac	Tk.60.05 lac	Tk.281.29 lac	Tk.1115.50 lac	Tk.542.60 lac	Tk.3695.00 lac	Tk.1250.00 lac	Tk.449.25 lac	Tk.897.60 lac	Tk.33.74 lac
Amount outstanding	Tk.275.50 lac	Tk.125.33 lac	Tk.725.25 lac	Tk.1115.50 lac	Tk.1446.30 lac	Tk.3788.56 lac	Tk.1285.22 lac	Tk.905.95 lac	Tk.885.12 lac	Tk.33.74 lac
Repayment of loan.	Tk.5.50 lac	Tk.20.16 lac	Tk.401.80 lac	Nil	Tk.186.00 lac	Tk.60.00 lac	Tk.226.50 lac	Tk.142.94 lac	Tk.412.55 lac	Nil
Interest waived/Write off	Tk.40.92 lac	Tk.53.43 lac	Tk.454.65 lac	Tk.651.50 lac	Tk.1030.32 lac	Nil	Tk.74.83 lac	Nil	Nil	Nil
Legal actions taken against borrowers	File case for bankruptcy	File case under Artha Rin Adalat	6 cases have filed	1. Sent legal notice. 2. Auction the mortgage property. 3. File case under Artha Rin Adalat.	1. Sent legal notice 2. File case Under Artha Rin Adalat	No action	File case	No action	No action	File case under Artha Rin Adalat
Legal action taken against credit officers	No	No	No	No	No	1. File case against branch manager	No	No	No	No

Sources: Compiled by the researcher from case studies analysis and findings

6.13 Summary of the Case Study Findings

The objective of the case study is to explore how financial institutions of Bangladesh banks in particular are performing their credit management functions and to identify reasons of default loans. Credit officers of banks in Bangladesh verbally said that they are properly followed all the necessary steps of credit management process and performing their job accurately. But their claims are not supported by the case studies findings. The case study findings are presented in the below:

Credit policy: Sample banks did not have any written credit policies which are the driving guidelines of the credit management though Bangladesh Bank made it mandatory for all banks to have written credit policy by December 2003.

Credit investigation policy: It is found in the case studies that sample banks did not have written credit investigation policy and written guidelines about what relevant information a credit officer should collect and what are the possible sources of information.

Aspects investigated: In 50% of the cases, no inspection was carried out, in other 50% of the cases, credit officers paid visit only companies factory site.

Sources of information: In 60% of the cases, credit officers did not collect any information. In 20% of the cases, they collected information from one source and other 20% of the cases from two sources. In all the cases no counter-checking was done

Aspects analyzed in credit analysis: On the average, credit officers analyzed 4 aspects in credit analysis.

Data banks: Banks in Bangladesh have no databank from where the credit officer can collect data about economy, business, borrowers, sector performance, industry average, market price etc.

Sources of data: The study found that data used in feasibility studies by credit officers are nothing but mere presentation of some figures. Data used in feasibility studies have no supporting evidence (Case-4, 5, 6, 7, 8, 9, and 10).

Forecasting: In some feasibility studies, credit officers used extrapolation method for forecasting demand, supply and demand supply gap (Case-1, 2, and 3) but the data used in forecasting these have no authenticity. In other cases, no basis of forecasting are found in the file.

Profitability forecast: High profitability was expected (37% in case 06, 35% in case 01, 33% in case 4) in feasibility study.

Actual performance: In most cases enterprises incurred losses.

Influences: In 50% of the cases, bank officials took initiative to grant bad loans (Case 4, 5, 7, 8, and 10). In 20% of the cases, both bank officials and politicians influenced in preparing credit proposals and granting loans (Case 6, and 9). In one of the case, both politician and bureaucrat influenced granting loan (Case 1).

Monitoring and review policy: The study found that sample banks did not have written policy for monitoring and reviewing the performance of the borrowers.

Monitoring: In all the cases, credit officers failed to monitor and to review the performance of borrowers regularly. Credit officers simply evaluated the performance of borrowers at the time of rescheduling and renewal. In preparing proposal for rescheduling and renewal, the credit officer needs to evaluate the borrowers past performance and to forecast the future performance. In all the cases, credit officers forecasted that borrower's company would be able to earn a fair return. Later, borrowers' performances showed poor and at the end they became defaulters. It is necessary to review and to monitor the performance of the borrowers regularly. But in all cases, credit officers made no attempts to evaluate the performance of borrowers regularly and grading the loan.

Rescheduling: One of the loans rescheduled 4 times, 4 loans 3 times, 3 loans 2 times, one loan one time and one is none. Rampant use of rescheduling means bank officials cooperation.

Techniques of handling bad loans: After borrowers became defaulter, credit officers took initiative to recover the loan amount. In recovery drives, they gave emphasis to recover the principal amount only. For handling problem loans, in 05 of the cases they waived interest (case 1, 2, 3, 5 and 7), in 05 cases lessen interest rate (case 4, 6, 7, 8, and 9), and in 06 cases, abstained from charging interest (case 4, 5, 6, 7, 8 and 9).

Legal Action: In 80% of the cases, banks taken legal action against borrowers but only one case legal action taken against credit officers.

CHAPTER 7

FINDINGS OF THE OPINION SURVEY

7.1 Introduction

Second phase of this study is quantitative one and it is based on an opinion survey. Data have been collected through self administered questionnaire to three respondent groups: namely credit officers, good borrowers and bad borrowers. Following criteria is used for presenting findings of the study:

1) Demographic characteristics of the respondents,

2) Credit management process,

3) Credit investigation,

4) Credit analysis,

5) Credit monitoring and reviewing,

6) Identification and handling problem loan,

7) Identification of causes of problem loans in Bangladesh and

8) Miscellaneous

It is planned in the study to test the respondents' opinions statistically. In this regards, the study formulated some hypotheses which were presented in chapter 5. To test these hypotheses, the researcher places these hypotheses under the related tables.

7.1.1 Personal Characteristics of the Respondents

Before going in to detail analysis of respondents' opinion it seems relevant to know and to explore demographic characteristics of the respondents. It is believed that sometimes the quality of response on a particular issue may depend on the respondents' age, schooling, and experience. So it is important to describe the demographic characteristics of the respondents.

7.1.1.1 Response rate: Response rates of the respondents' are exhibited in the table below.

Table #7.1
Shows the response rate of the respondents

Respondent Groups	Number of questionnaire sent	Number of respondents	Response rate
Credit officers	40	33	83%
Bad borrowers	18	12	66%
Good borrowers	19	15	79%
Total	**77**	**60**	**78**

Response rate is the ratio between the sets of questionnaire sent to the respondents and receipt of filled in questionnaire. Table 7.1 shows that total 77 questionnaires were sent to respondents. Out of total mailed questionnaire, 60 questionnaires were retuned by respondents and the response rate is 78 percent. Among the respondent groups credit officers' response rate is the highest (83%) and bad borrowers' response rate is the lowest (66%). Despite of repeated communication, bad borrowers' response rate is comparatively low. The researcher talked with them to find out the causes of their unwillingness. They told the researcher that they are afraid of expressing their opinion in black and white.

7.1.1.2 Group wise classification of the respondents: Group might have some reflections on the respondent's opinion. Following table shows the group-wise classification of the respondents.

Table # 7.2
Shows the Group wise classification of the respondents

Respondent Groups	Number of respondents	% of respondents
Credit officers	33	55%
Bad borrowers	12	20%
Good borrowers	15	25%
Total	**60**	**100%**

It is shown in the table 7.2 that out of 60 respondents, 33 are credit officer i.e. 55 percent respondents are credit officer, 12 are bad borrower i.e. 20 percent are bad borrower and 15 respondents' i.e.25 percent are good borrower.

7.1.1.3 Age wise classification of the respondents

It is believed that age has some considerable reflections on the opinion of respondents. Hence it is desirable to classify the respondents according to their age. Respondents' age wise classification is presented in the table 7.3.

Table# 7.3
Shows the age-wise classification of the respondents

Age group	Number of respondent	% of respondents
30 years or below	2	3.3
31 years to 40 years	20	33.3
41 years to 50 years	24	40.0
51 years and above	14	23.3
Total	**60**	**100.0**

Table 7.3 shows that 40 percent respondent belong to an age group of 41- 50 years. 33.3 percent belong to 31-40 years age group, 23.3 percent belong to 51 and above age group and only 3.3 percent belong to 30 or below age group. It is clear from the statistics that most of the respondents are above age.

7.1.1.4 Academic discipline wise classification of the respondents: Table 7.4 exhibits the academic discipline wise classification of the respondents.

Table # 7.4
Shows the academic discipline- wise distribution of respondents

Academic discipline	Number of respondent	% of respondents
Arts	11	18.3
Science	12	20.0
Business/ Commerce	37	61.7
Total	**60**	**100.0**

Basic educational discipline might be a factor of understanding credit management. It is clear from table 7.4 that most of the respondents i.e. 61.7 percent are of business/commerce background. It is a general feeling that the credit officer with business background is efficient. Out of total respondents, 20 percent respondents have science background and 18.3 percent have arts background.

7.1.1.5 Years of schooling wise classification of the respondents: It is expected that educational qualification of a respondent has a considerable impact on the opinion of the respondent hence it is chosen to classify the respondents on the basis of their years of schooling. Table 7.5 shows the years of schooling wise distribution of respondents.

Table # 7.5

Shows the years of schooling-wise distribution of respondents

Years of schooling	**Number of respondent**	**% of respondents**
Up to 13 years	2	3.3
14 years to 17 years	30	50.0
18 years to 19 years	13	21.7
20 years or more	15	25.0
Total	**60**	**100.0**

It is shown in the above table that 50 percent of the respondents have achieved maximum general education (Graduate or Masters) in Bangladesh. Among the respondents' 21.7 percent have completed 18-19 years and 25 percent completed 20 years or more. A negligible portion of the respondents (3.3 percent) completed up to 13 years of schooling i.e. they are under graduate.

7.1.1.6 Professional experience wise groupings of the respondents: Table 7.6 in the below shows the professional experience wise classification of the respondents.

Table # 7.6

Shows the professional experience wise groupings of the respondents

Experience	**Number of respondent**	**% of respondents**
Up to 5 years	4	6.7
6 to 10 years	12	20.0
11 to 15 years	10	16.7
More than 15 years	34	56.7
Total	**60**	**100.0**

Professional experience might have a considerable impact on the opinion of the respondent hence it is considered best to classify the respondents on the basis of their professional experience. Table 7.6 shows that about 57 percent of the respondents belong to more than 15 years experience category. The others 16.7 percent belong to 11-15 years category, 20 percent belongs to 6-10 years category and only 6 percent belong up-to 5 years category. It can be concluded from the above data that majority of the respondents are experienced in their group.

7.1.2 Credit Management Process: It is planned in the study to survey the opinion of the three respondent groups to know what steps banks in Bangladesh are being following in their credit management process. Table 7.7 shows group wise respondents opinion about the steps of credit management process of banks in Bangladesh.

Table #7.7
Shows respondents opinion about the steps of credit management process of banks in Bangladesh

Steps in Credit Management	Credit Officers (n=33)		Bad Borrowers (n=12)		Good Borrowers (n=15)		Total (n=60)		Chi	p-value	Result at 5% level
	N	%	N	%	N	%	N	%			
Strategic plan for target markets		39.4	7	58.3	8	53.3	28	46.7	1.63	0.444	Ins.
Credit policy formulation	25	75.8	9	75	5	33.3	39	65	8.82	0.012	Sig.
Client request/ relationship marketing	22	66.7	12	100	10	66.7	44	73.3	5.45	0.065	Ins.
Client interview	22	66.7	8	66.7	8	53.3	38	63.3	0.86	0.650	Ins.
Credit investigation	32	97	12	100	15	100	59	98.3	0.83	0.660	Ins.
Credit analysis	32	97	12	100	15	100	59	98.3	0.83	0.660	Sig.
Preparation of proposal	33	100	12	100	15	100	60	100	-	-	-
Credit approval	32	97	12	100	15	100	59	98.3	0.83	0.660	Ins.
Credit negotiation	21	63.6	12	100	15	100	48	80	12.27	0.002	Sig.
Documentation	26	78.8	12	100	15	100	53	88.3	6.48	0.039	Sig.
Loan disbursement	32	97	12	100	12	80	56	93.3	5.84	0.054	Ins.
Internal audit	29	87.9	9	75	3	20	41	68.3	22.27	0.000	Sig.
Monitoring and review	31	93.9	12	100	12	80	55	91.7	3.99	0.136	Ins.
Problem loan resolution	25	75.8	12	100	13	86.7	50	83.3	3.88	0.143	Ins.
Loan recovery	32	97	12	100	15	100	59	98.3	0.83	0.660	Ins.
Average value	12.33		13.75		11.73		12.47				
SD	3.15		1.22		1.79		2.63				
CV (%)	25.53		8.84		15.27		21.07				
F- test	F = 2.140; p< 0.127 (Not significant)										

(1) H_0: Banks in Bangladesh are not following most of the steps in credit management process
(2) H_0: There exists no difference of opinion among three respondent groups about the steps of credit management in Bangladesh

The study developed 15 steps of credit management process by studying existing literature which has already been described in chapter 2 and 3; and respondents were asked to pass their opinion which steps banks in Bangladesh are following. Table 7.7 shows that out of the formulated 15 steps of credit management, respondent groups opined that banks in Bangladesh are following on the average 12 steps. Individually, credit officers opined that banks are being following 12 steps; bad borrowers opined that banks are being following 14 steps and good borrowers opined that 12 steps of credit management are being following by banks in Bangladesh. Table 7#7 also shows that only 46.7 percent respondent opined that first step (Strategic plan for target markets) of credit management is following in the credit management process. But it is the first step of planning and management in scientific management. It is clear from statistics that more than average (12 out of 15) steps are following by banks in Bangladesh and it rejects the null hypothesis.

The study tried to find out whether respondent groups have any significant differences of opinion about individual step of credit management. It is clear from χ^2 test in table 7#7 that there exits no significant differences of opinion among respondent groups about steps 2, 7, 9, 10, and 12 and there exists differences of opinion among three respondent groups about steps 1, 3, 4, 5, 6, 8, 11, 13, 14 and 15. It is hypothesized in the study that there exists no difference of opinions among the respondent groups about steps of credit management process of banks in Bangladesh. From 'F' statistics it is clear that ($F=2.140$; $p<0.127$) there exists no difference of opinion among three respondent groups and it cannot rejects the null hypothesis.

7.1.3 Credit investigation: Credit investigation usually done to collect information about borrowers and their business to assess their creditworthiness. Here, the researcher wants to know the opinion of three respondent groups whether banks in Bangladesh have any credit investigation policy and from where credit officers are collecting information about borrowers and their business. The study tried to survey respondents opinion to know what are the aspects credit officers are investigating, from where they are collecting information and to measure the strengths or weaknesses of present credit investigation of banks in Bangladesh. The survey results are presented in the following subsections:

7.1.3.1 Existence of credit investigation policy in banks of Bangladesh: The researcher tried to collect opinions of the respondents whether banks in Bangladesh have any credit investigation policy. The findings of the survey are summarized in the table below:

Table # 7.8
Shows the group wise respondents opinion about existence of credit investigation policy in banks of Bangladesh

Respondent groups	Opinion				Total	
	Yes		No			
	N	%	N	%	N	%
Credit officers	30	90.9	3	9.1	33	100.0
Bad borrowers	10	83.3	2	16.7	12	100.0
Good borrowers	12	80.0	3	20.0	15	100.0
Total	**52**	**86.7**	**8**	**13.3**	**60**	**100.0**
χ^2 **test**	χ^2**=1.21; p<0.547**					

(3) H_0: Banks in Bangladesh have no credit investigation policy

(4) H_0: There exists no difference of opinion among three respondent groups about credit investigation policy

It is clear from table 7.8 that 91 percent credit officers, 83 percent bad borrowers and 80 percent good borrowers opined that banks in Bangladesh have credit investigation policy and it rejects the null hypothesis. To test the agreement or disagreement among respondent groups, the study use χ^2 test. From χ^2 test (χ^2 1.21; p<0.547), it is clear that there exists no difference of opinions among three respondent groups and it cannot rejects the null hypothesis.

7.1.3.2 Aspects of credit investigation: Here respondents were asked to pass their opinion about what aspects credit officers in Bangladesh generally investigate to collect information about borrowers and their businesses. Respondents' opinions are presented in the table below:

Table # 7. 9

Shows the group wise respondents opinion about aspects credit officers of banks in Bangladesh are investigating

Aspects	Credit officers (n=33)		Bad borrowers (n=12)		Good borrowers (n=15)		Total (n=60)		Chi value	p-value	Result at 5%
	N	%	N	%	n	%	N	%			
Physical inspection	33	100	12	100	15	100	60	100	9.61	0.008	Sig.
Payment of utility bill	12	36.4	1	8.3	0	0.0	13	22.70	2.58	0.275	Ins.
Bank transaction	30	90	12	100	15	100	57	95	16.63	0.000	Sig.
Creditors payment	22	66.7	1	8.3	3	20	26	43.30	0.36	0.834	Ins.
Collection of debts	17	51.5	5	41.7	7	46.7	29	48.30	3.10	0.213	Ins.
Income tax payment	24	72.7	8	66.7	7	46.7	39	65	16.36	0.000	Sig.
Assets of borrowers/ business	33	100	12	100	10	68.7	55	91.70	7.44	0.024	Sig.
Employee and employer relation	13	39.4	0	0.0	3	20	16	26.70	7.35	0.025	Sig.
Visit of prime competitors business	14	42.4	0	0.0	5	33.3	19	31.70	8.25	0.285	Ins.
Average value	6		4.25		4.33		5.23				
SD	1.68		1.06		0.49		1.59				
CV (%)	28		24.94		11.32		30.4				
F- test	F = 11.647; p< 0.000 (Significant)										

(5) H_0: Credit officers in Bangladesh do not investigate enough aspects in credit investigation

(6) Ho: There exists no difference of opinion among three respondent groups about aspects, credit officers in Bangladesh are investigating in credit investigation

It is shown in table 7.9 that out of formulated 9(nine) aspects of credit investigation, credit officers in Bangladesh are mainly investigating 4 (four) aspects namely: physical inspection of borrowers' companies assets (100%); borrowers' bank transaction (95%); their income tax payment (65%); and physical inspection of borrowers personal and business assets (92%). The other aspects namely: payment of utility bill (22%); debtor's collection (48%); creditor's payment (43%); employee employer relation (27%); and visit of prime competitors businesses (32%) are negligently investigate in credit investigation. The study hypothesized that credit officers in Bangladesh are investigating fewer aspects in credit investigation. Table 7.9 shows that averagely, credit officers investigate 5.23 aspects. It is more than average hence study rejects the hypothesis. From χ^2 test, it is evident that there exits no difference of opinion among three respondent groups in case of investigation of aspects 2, 4, 5 and 9. It is also clear from χ^2 test that there exists difference of opinion in case of the aspects 1, 3, 6, 7, 8 and 9 of aspects of credit investigation. The second hypothesis in this subsection is that there exists no difference of opinion among three respondent groups about the aspects, credit officers in Bangladesh investigate in credit investigation. It is clear from 'F' test ($F=11.647$; $p<0.000$, significant) that there exists difference of opinion among three respondent groups and it rejects the null hypothesis.

7.1.3.3 Sources of credit information: For identifying the sources, credit officers are using for collecting information about borrowers and their businesses, the study identified some sources of information by studying existing literature(which is described in chapter 3 and 4) and asked the respondents to tick the sources credit officers in Bangladesh are using. Survey results are presented in the table below:

Table # 7.10

Shows the group wise respondents' opinion about the sources of information

Sources of Information	Credit officers (n=33)		Bad borrowers (n=12)		Good borrowers (n=15)		Total (n=60)		Chi Value	p-value	Result. at 5%
	n	%	N	%	N	%	n	%			
Credit suppliers	18	54.5	1	8.3	5	33.3	24	40	8.20	0.017	Sig.
Credit information Bureau	32	97	12	100	15	100	59	98.3	0.83	0.660	Ins.
Commercial publications	8	24.2	0	0	2	13.3	10	16.7	3.88	0.143	Ins.
Service provider of borrowers	7	21.2	0	0	0	0	7	11.7	6.48	0.039	Sig.
Special purpose directories	10	30	1	8.3	0	0	11	18.3	7.33	0.026	Sig.
Articles of other published trade publications	5	15.2	0	0	4	26.7	9	15	3.72	0.156	Ins.
Present or previous credit file of borrowers	26	78.8	4	33.3	4	26.7	34	56.7	14.73	0.001	Sig.
Income tax/ VAT authority	15	45.5	2	16.7	4	26.7	21	35	3.82	0.148	Ins.
Borrowers banks	31	93.9	10	83.3	11	73.3	52	86.7	3.93	0.140	Ins.
Credit ratting agencies	10	30.3	4	33.3	2	13.3	16	26.7	1.86	0.395	Ins.
Government agencies	6	18.2	2	16.7	0	0	8	13.3	3.09	0.213	Ins.
News paper	14	42.4	0	0	2	13.3	16	26.7	9.92	0.007	Sig.
Customers	14	42.4	2	16.7	4	26.7	20	33.3	3.03	0.220	Ins.
Competitors	12	36.4	0	0	0	0	12	20	12.27	0.002	Sig.
Ambassador or high commission office	4	12.1	0	0	0	0	4	6.7	3.51	0.173	Ins.
Internet	3	9.1	0	0	0	0	3	5	2.58	0.275	Ins.
Average value	6.52		3.17		3.53		5.1				
SD	3.29		1.53		2.2		3.16				
CV (%)	50.49		48.24		62.25		61.87				
F- test	**F = 9.578; p< 0.000 (Significant)**										

(7) H_0: Credit officers in Bangladesh are collecting information about borrowers and their business from a few sources

(8) H_0: There exists no difference of opinion among three respondent groups about the sources of information now using credit officers in Bangladesh

Table 7.10 shows that credit officers in Bangladesh are collecting information mainly from 03 (three) sources. These are: credit information bureau (98%); borrowers' bank (88%); present or previous credit file of the borrowers (57%). Table also shows that out of formulated 16(sixteen) sources, credit officers are negligently using 13 sources and the average sources they are suing is 5.1. It proves that credit officers in Bangladesh are collecting information from a fewer sources and it accepts the null hypothesis.

Table 7.10 shows that there exists considerable difference of opinion among three respondent groups about the sources credit officers are being using in credit investigation. Credit officers opined that average 6.52 sources are being used by credit officers. In case of bad borrowers and good borrowers the averages are 3.17 and 3.53 respectively. To test agreement/disagreement among three respondent groups, the study use 'F' test. From 'F' test ($F=9.578$; $p<0.000$), it is clear that there exists difference of opinion among three respondent groups and it accepts the null hypothesis.

7.1.3.4 Respondents' suggestions about sources from where credit officers can collect information: In the opinion survey, the researcher sought respondents' suggestion about sources of information which are not included in the questionnaire. Some respondents suggest that information can be collected from relatives and employees. Respondents' suggestions are so sporadic and a few in numbers that it is difficult to present in table.

7.1.3.5 Evaluation of strengths/weaknesses of present credit investigation of banks in Bangladesh: To measure the strengths/weaknesses of present credit investigation of banks in Bangladesh, the researcher developed 06 statements by following the Likert Summated scale technique and by fulfils its condition. Then respondents were asked to pass their opinion on the statements. Out of these six statements, three were positive and three were negative in nature where "strongly agree" in positive statements was awarded 5 points, "agree" was awarded 4 points, disagree was awarded 2 points and "strongly disagree" was awarded 1 point. Conversely, in negative statement "strongly agree" was awarded 1 point, agree was awarded 2 points, "strongly disagree" was awarded 5 point and disagree awarded 4 points. "Undecided level" was awarded 3 points. By using Likert summated scales, it may be concluded that summated score below the undecided level implies dissatisfaction/weaknesses and more than undecided level implies satisfaction/strengths of the statements. The survey results and their test of significance are presented in the tables 7.11 and 7.12 below. (Group-wise respondents individual statement mean score, standard deviation, 't' value, p- value, total respondents mean score, 't' value, p- value, agreement/ disagreement among three respondents group are shown in the appendix I, Table #1)

Table # 7.11

Shows group wise respondents opinion about strength/weakness of the present credit investigation of banks in Bangladesh

Respondent Groups	N	Mean	Std. Deviation	CV (%)	Cut off point	t-value	p- value	Result at 5%
Credit officers	33	18.76	1.77	9.43	18	2.467	.02	Sig.
Bad borrowers	12	18.58	2.64	14.23	18	0.761	.46	Ins.
Good borrowers	15	18.27	3.24	17.74	18	0.323	.75	Ins.
Total	60	18.60	2.35	12.65	18	1.978	.05	Sig.
F-test	**F = 0.219; p < 0.804 (Insignificant)**							
CO vs. BB	**t = .650 ; p< 0.521 (Insignificant)**							
CO vs. GB	**t = 2.176 ; p< 0.035 (Significant)**							
BB vs. GB	**t = 1.222 ; p<0.240 (Insignificant)**							

(9) H_0: Credit investigation of banks in Bangladesh is not satisfactory

According to Likert Summated Scale technique, a score equal to or more than undecided level indicates the satisfaction/strengths of the statement/statements. It is shown in the table 7.11 that average score of the respondent groups is 18.60 and it is more than 18 (undecided score is 3 in one statement hence it is $6 \times 3 = 18$ for 6 statements). The scores are 18.76 for credit officers, 18.58 for bad borrowers and 18.27 for good borrowers. These indicate that present credit investigation of banks in Bangladesh is good and it rejects the null hypothesis.

(10) H_0: There exists no difference of opinion among three respondent groups about the strengths/weaknesses of credit investigation of banks in Bangladesh

To test the agreement and disagreement among three respondent groups it was planned to use 'F' test and to test the agreement and disagreement between respondent groups't' test. It is clear from 'F' test that (F=0.219; p< 0.804; Insignificant) there exists no difference of opinions among the three respondent groups about the strengths of credit investigation of banks in Bangladesh. This means, it cannot rejects the null hypothesis.

It is also clear from 't' test that (t=.650; p<0.521; Insignificant) there exists no difference of opinions between credit officers and bad borrowers. The study also use 't' test to know whether there exists any difference of opinions between bad borrowers and good borrowers and also between credit officers and good borrowers. From the table 7.11 it is clear that their exits significant difference of opinion between credit officers and good borrowers (t=2.176; p<0.035; Significant) and their exist no significant difference of opinions between bad borrowers and good borrowers (t=1.222; p<0.240, Insignificant).

Table#7.12
Shows the test of significance of individual statement and agreement/disagreement among the three respondent groups

Statements	Mean	SD	t - value	p- value	Result at 5% level	F value	P value	Result at 5% level
It is difficult to collect information through credit investigation	2.9	1.13	0.51	0.613	Ins.	7.263	0.002	Sig.
The existing sources of information are authentic	3.4	0.92	2.50	0.015	Sig.	2.518	0.09	Ins.
Credit officers are not adequately trained for handling credit investigation	3.2	1.03	1.12	0.269	Ins.	0.651	0.526	Ins.
The credit officers properly investigate all the matters set in the credit investigation policy	3.4	0.94	2.44	0.018	Sig.	0.026	0.975	Ins.
The credit officer does not maintain the master file for credit investigation	2.2	0.74	6.21	0.000	Sig.	1.793	0.176	Ins.
There are prescribed guidelines for collecting information in the banks	3.6	1.05	3.28	0.002	Sig.	0.232	0.794	Ins.

The study planned to calculate individual statement's mean score, its standard deviation's and to used 't' test and 'F' test to test the significance of individual statement's score and to judge the agreement and disagreement among the three respondent groups. It is clear from the table 7.12 that only two statement's (It is difficult to collect information through credit investigation, and the credit officer does not maintain the master file for credit investigation) scores are below the undecided level. Statements 2, 4, 5, and 6 are statistically significant. It is also clear from the table that there exists no significant difference of opinions among three respondent groups regarding statements 2, 3, 4, 5, and 6.

7.1.4 Credit analysis: Credit analysis is done to assess creditworthiness of a borrower. Here it was planned to survey the respondent's opinion regarding credit analysis policy, aspects of credit analysis and strength/weaknesses of present credit analysis of banks in Bangladesh. The following tables 7.13 to 7.19 show the survey results.

7.1.4.1 Credit analysis policy: In the opinion survey, respondents were asked a tag question (Yes/No) whether banks in Bangladesh have any credit analysis policy. The findings of the survey are presented in the table below:

Table #7.13
Shows the respondents' opinions about the existence of credit analysis policy in banks of Bangladesh

Respondent Groups	Opinion				Total	
	Yes		No			
	N	%	N	%	N	%
Credit officers	27	81.8	6	18.2	33	100.0
Bad borrowers	10	83.3	2	16.7	12	100.0
Good borrowers	12	80.0	3	20.0	15	100.0
Total	**49**	**81.7**	**11**	**18.3**	**60**	**100.0**

Table # 7.13 shows that 82 percent of respondents opined that banks in Bangladesh have written credit analysis policy and 18 percent respondents are of the opinion that banks do not have. By analyzing the survey results in group wise, it is found that 82 percent credit officers, 83 percent bad borrowers and 80 percent good borrowers opined that banks have written credit analysis policy.

7.1.4.2 Aspects of credit analysis: By studying existing literature the researcher has identified some aspects of credit analysis (which is described in chapter 3 and 4) for assessing creditworthiness of a borrower. In the survey respondents were asked to tick which aspects are analyzed by credit officers in Bangladesh. The survey result is presented in the table below:

Table #7.14

Shows the group-wise respondents' opinion about the aspects of credit analysis are considered by credit officers of banks in Bangladesh in assessing creditworthiness of borrowers

Aspects	Credit officers (n=33)		Bad borrowers (n=12)		Good borrowers (n=15)		Total (n=60)		Chi Value	p-value	Result at 5% level
	N	%	N	%	N	%	n	%			
Profitability	33	100	12	100	15	100	60	100		-	-
Marketability	33	100	12	100	12	80	57	95	9.47	0.009	Sig.
Corporate life cycle	20	60.6	7	53.3	10	66.7	37	61.7	0.23	0.891	Ins
Corporate personality	25	75.8	7	58.3	7	46.7	39	65	4.13	0.127	Ins.
Management ability	33	100	12	100	15	100	60	100	-	-	-
Collateral position of borrowers	28	84.8	11	91.7	15	100	54	90	2.68	0.262	Ins.
Competitive position	26	78.8	10	83.3	11	73.3	47	78.3	0.40	0.818	Ins.
Future of industry	25	75.8	7	58.3	5	33.3	37	61.7	7.92	0.019	Sig.
International competition	15	45.5	6	50	3	20	24	40	3.41	0.182	Ins.
Fiscal policy of the government	19	57.6	2	16.7	2	13.3	23	38.3	11.52	0.003	Sig.
Fiscal policy of importing or exporting countries	19	57.6	2	16.7	3	20	24	40	9.47	0.009	Sig.
Average value	8.36		7.33		6.53		7.7				
SD	2.32		2.06		1.68		2.23				
CV (%)	27.69		28.09		25.79		29.02				
F- test	**F = 4.038; p< 0.023 (Significant)**										

(11) H_0: Credit officer in Bangladesh failed to analyze all relevant aspects in credit analysis

(12) H_0: There exists no difference of opinion among the three respondent groups about the aspects credit officers in Bangladesh are analyzing in credit analysis

Table 7.14 shows that, out of formulated 11(eleven) aspects of credit analysis, respondents opined that on an average 8 (7.70) aspects are analyzing by credit officers in assessing the creditworthiness of borrowers. From average it is clear that credit officers are considered more than average aspects in credit analysis, hence it rejects the null hypothesis. The study use χ^2 test to test the respondents' opinion statistically.

It is clear from χ^2 test that respondents opinions are statistically significant in respect of analyzing aspects 2, 8, 10, and 11 and insignificant about aspects 1, 3, 4, 5, 6, 7, and 9.

The study also use 'F' test to test the agreement/disagreement among the three respondent groups about credit analysis. 'F' ($F=4.038$; $p<0.023$; Significant) test shows that there exists differences of opinion among three respondent groups about the aspects of credit analysis and it rejects the null hypothesis.

7.1.4.3 Respondents suggestions about various aspects of credit analysis: In the opinion survey respondents were requested to give their suggestions about the aspects they believed to be more important and should have to be included in credit analysis. Respondents' suggestions are a few in numbers and it is presented in the table below:

Table# 7.15
Shows the respondents' suggestions about the aspects they believed more important and should be included in credit analysis

Suggestions	Credit officers	Bad Borrowers	Good Borrowers	Total
Goodwill of borrowers	03	0	0	03
Credibility of borrowers	01	0	0	01
Behavior of borrowers	0	01	0	01
Industrial policy	00	02	02	04
Entrepreneurship	02	01	01	04
Total	**06**	**04**	**03**	**13**

From table 7.15 it is clear that only 13 respondents gave their suggestions. Out of these respondents, 04 respondents believed that industrial policy and entrepreneurship should be analyzed in credit analysis. On the other hand, 03 respondents opined that goodwill of borrowers should be analyzed in credit analysis.

7.1.4.3 Respondents suggestions whether credit analysis task to be given to an independent third party/agency: Respondents were asked a tag (Yes/No) question that whether they support to give credit analysis task to an independent third party/agency. Their opinions are presented in the following table:

Table #7.16

Shows the group wise respondents' opinion about whether credit analysis task should be given to an independent third party/agency

Respondent Groups	**Opinion**				**Total**	
	Yes		No			
	N	%	N	%	N	%
Credit officers	9	27.3	24	72.7	33	100.0
Bad borrowers	3	25.0	9	75.0	12	100.0
Good borrowers	7	46.7	8	53.3	15	100.0
Total	**19**	**31.7**	**41**	**68.3**	**60**	**100.0**

Table 7.16 shows that 31.7 percent respondents suggest that credit analysis task should be given to an independent third party/agency and 68.3 percent respondents opposed it. Among the respondents' 73 percent credit officers, 75 percent bad borrowers, and 53 percent good borrowers oppose to give the assignment to a third party/agency.

7.1.4.4 Respondents arguments in favor of giving/not giving credit analysis task to an independent third party/agency: Respondents were asked to forward their arguments in favor of their suggestion. Their arguments are sporadic and the study believes that it would be unappealing to present it in table format; hence it is not presented in the tabular form.

7.1.4.5 Assessment of strength/weakness of present credit analysis of banks in Bangladesh: To asses the strength/weakness of present credit analysis of banks in Bangladesh, it was designed to develop 10(ten) statements by following the Likert Summated Scale technique and respondents were asked to pass their opinion. Out of 10 (ten) statements, 05(five) were positive in nature and 05 (five) were negative where "strongly agree" in positive statements was awarded 5 points and "strongly disagree" was awarded 1 point. In negative statements, "strongly agree" was awarded 1 point, "strongly disagree" was awarded 5 points and "undecided level" was awarded 3 points. By using the Likert summated scale, it can be concluded that score below undecided level implies the unsatisfactory/weakness and score more than undecided level implies satisfactory/strength of the statements. The survey results and their test of significance are presented in the table 7.17 and 7.18. (Group wise respondents' individual statement mean score, standard deviation 't' value, p-value, total respondents' mean score, 't' value, p- value, agreement disagreement among three respondents group are shown in the appendix-I, Table # 3)

Table #7.17
Shows the group-wise respondents opinion about strength/weakness of the present credit analysis of banks in Bangladesh

Respondent groups	N	Mean	Std. Deviation	CV (%)	Cut off point	t-value	p-value	Result at 5%
Credit officers	33	30.48	3.675	12.06	30	0.750	.46	Ins.
Bad borrowers	12	29.67	2.995	10.1	30	0.382	.71	Ins.
Good borrowers	15	30.93	2.84	9.18	30	1.268	.23	Ins.
Total	60	30.43	3.331	10.95	30	1.000	.32	Ins.
F-test	$F = 0.482$; $p < 0.602$ (Not significant)							
CO vs BB	$t = 0.761$; $p < 0.454$ (Not significant)							
CO vs GB	$t = 0.461$; $p < 0.648$ (Not significant)							
BB vs GB	$t = 1.117$; $p <$ 0..275 (Not significant)							

(13) H_0: Credit analysis of banks in Bangladesh is not strong/good/satisfactory

(14) H_0: There exists no difference of opinion among three respondent groups about the satisfaction of bank's credit analysis in Bangladesh

According to the Likert summated scale technique, summated score equal to or more than undecided level indicates the strength/satisfaction of the variables. In this table, 10 (ten) statements were developed by the study and respondents were asked to pass their opinion about each statement. For judging satisfaction, summated score equal to or more than 30($10\times3=30$) is set as cut off point. Table 7.17 shows that mean score of the respondents is 30.43. Hence it indicates the strength of the variable and it rejects the null hypothesis.

To test the agreement and disagreement among three respondent groups the study use 'F' test, and to test the agreement and disagreement between respondent groups't' test. It is clear from 'F' test that ($F=0.482$; $p<0.602$; Insignificant) there exist no differences of opinion among three respondent groups about the strength of credit analysis of banks in Bangladesh. This means that, it cannot reject the null hypothesis. It is also clear from 't' test that ($t=761$; $p<0.454$; Insignificant) there exist no significant differences of opinion between credit officers and bad borrowers; between credit officers and good borrowers ($t=0.461$; $p<0.648$; Insignificant) and bad borrowers and good borrowers ($t=1.117$; $p<0.275$ Insignificant).

Table #7.18

Shows the group-wise respondents score about statements for judging strength/weakness of the present credit analysis of banks in Bangladesh

Statements	Mean	SD	t-value	p-value	Result at 5% level	F value	P value	Result at 5% level
Credit analysis largely depends on reputation and relationship with the borrowers	3.48	0.95	2.90	0.005	Sig.	0.284	0.754	Ins.
Market price of the share of the applying company is considered for credit analysis	2.93	1.21	0.33	0.741	Ins.	0.844	0.435	Ins.
Corporate life cycle is never considered in credit analysis	2.58	1.01	2.39	0.020	Sig.	2.931	0.061	Ins.
Corporate personality (i.e.) effective organization, financial reporting and accounting policy) is not considered for credit analysis	2.9	1.28	0.45	0.655	Ins.	9.573	0.000	Sig.
Person assigned for credit analysis is sufficiently qualified	3.23	0.91	1.45	0.152	Ins.	1.105	0.338	Ins.
Information needed in the model for credit analysis cannot easily found	3.58	1.0	3.33	0.001	Sig.	7.815	0.001	Sig.
Credit officer always consider industry data in credit analysis	2.72	1.21	1.33	0.189	Ins.	0.859	0.429	Ins.
Payment and amount of income tax are considered in credit analysis	2.53	1.16	2.33	0.023	Sig.	12.945	0.000	Sig.
In qualitative judgment credit officer put their options in such a way that would result average performance	3.55	1.05	3.01	0.004	Sig.	1.197	0.310	Ins.
Information used in credit analysis is authentic	2.92	0.91	0.51	0.615	Ins.	6.016	0.004	Sig.
F-Test	**F = 0.482; p < 0.602 (Not significant)**							

Table 7.18 shows mean score of individual statement, their standard deviation, 't' value, 'p' value of individual group and as a whole. The study uses 'F' test, to judge the group agreement and disagreement among groups about individual statement and as a whole. It is clear from the table 7.18 that statements 2, 3, 4, 7, 8 and 10 scored below the satisfactory level. Statements 1, 3, 6, 8, 9 are statistically significant. Statements 2, 4, 5, 7, 10 are statistically insignificant. The study also attempts to test the agreement and disagreement among the groups about individual statement. From 'F' test it is clear that there exists a statistically significant difference of opinion

among three groups regarding statements 4, 6, 8, and 10. An attempt was also made to test the agreement and disagreement of respondent groups about total statements. From 'F' test ($F = 0.482$; $p < 0.602$) it is clear that there exists no difference of opinion among the respondent groups about strength of credit analysis of banks in Bangladesh. This means that the null hypothesis cannot be rejected.

7.1.5 Monitoring and review of credit: It is a practice that credit officers will closely monitor the activities of borrowers and will assess their performance to ensure smooth recovery of loan. In the opinion survey, the study tried to survey the opinion of the three respondent groups about credit monitoring and reviewing policy, aspects of credit monitoring and reviewing and to measure the strength/ weakness of the present credit monitoring and reviewing task of banks in Bangladesh. The findings of the survey are presented in tables 7.19 to 7.22.

7.1.5.1 Credit monitoring and reviewing policy: Respondents were asked a tag question (Yes/No) whether banks in Bangladesh have any credit monitoring and reviewing policy. The finding of the survey is presented in the table below.

Table#7.19
Shows the group-wise respondents' opinion about credit monitoring and reviewing policy

Respondent groups	Opinion				Total	
	Yes		No			
	N	%	N	%	N	%
Credit officers	29	87.9	4	12.1	33	100.0
Bad borrowers	6	50.0	6	50.0	12	100.0
Good borrowers	4	26.7	11	73.3	15	100.0
Total	**39**	**65.0**	**21**	**35.0**	**60**	**100.0**

(15) H_0: Banks in Bangladesh do not have credit monitoring and reviewing policy
Here respondents were asked to pass their opinion whether banks in Bangladesh have any credit monitoring and reviewing policy. From table 7.19 it is clear that aggregately 65 percent respondents opined that banks in Bangladesh have credit monitoring and reviewing policy and it rejects the null hypothesis. But if it is analyzed separately, it is found that around 88 percent credit officers, 50 percent bad borrowers and 27 percent good borrowers opined that banks in Bangladesh have credit monitoring and reviewing policy. From the survey result it shows that the null hypothesis is rejected.

7.1.5.2 Aspects of credit monitoring and review: By studying existing literature, the researcher developed 09 aspects of credit monitoring and reviewing (which is described in chapter2 and 3) and respondents were asked to tick, which of the aspects credit officers in Bangladesh are monitoring and reviewing. The findings of survey are shown in the table below:

Table #7.20

Shows the group wise respondents opinion about aspects of credit monitoring and reviewing of banks in Bangladesh

Aspects	Credit officers (n=33)		Bad borrowers (n=12)		Good borrowers (n=15)		Total (n=60)		Chi	p-value	Result at 5% level
	N	%	N	%	N	%	n	%			
Financial statements	27	81.8	10	83.3	2	13.3	39	65	23.48	0.000	Sig.
Repayment of loan	30	90.9	8	66.7	7	46.7	45	75	11.32	0.003	Sig.
Economic condition	13	39.4	2	16.7	0	0	15	25	9.09	0.011	Sig.
Risk up dating	13	39.4	0	0	0	0	13	21.7	13.58	0.001	Sig.
Purpose of the loan	25	75.8	8	66.7	2	13.3	35	58.3	16.96	0.000	Sig.
Repayment sources	24	72.7	1	8.3	2	13.3	27	45	22.85	0.000	Sig.
Documentation	26	78.8	5	41.7	5	33.3	36	60	10.98	0.004	Sig.
Security	22	66.7	9	75	0	0	31	51.7	21.62	0.000	Sig.
Regulatory compliance	12	36.4	3	25	2	13.3	17	28.3	2.78	0.250	Ins.
Average value	5.82		3.83		1.33		4.3				
SD	2.36		2.37		1.76		2.9				
CV (%)	40.64		61.77		131.95		67.33				
F test	**F= 21.150; p<0.000 (Significant)**										

(16) H_0: Credit officers in Bangladesh do not adequately monitor and review the performance of borrowers

(17) H_0: There exist no differences of opinion among the respondent groups about the aspects, credit officers in Bangladesh usually analyze for reviewing the performance of borrowers

It is shown in the table 7.20 that out of formulated 09 aspects of credit review; credit officers in Bangladesh on the average review 4.30 aspects. Majority of the respondents passed their opinion that credit officers mainly review the financial statements (65%); repayment of loan (75%); purpose of the loan (58%); documentation (60%); and security (52%). It is clear from table that credit officers in Bangladesh do not adequately monitor and review the performance of borrowers. Thus the null hypothesis cannot be rejected.

To test respondent's opinion statistically, the study use χ^2 test. From χ^2 test, it is proved that respondents' opinion regarding aspects 1, 2, 3, 4, 5, 6, 7, 8, are statistically significant and 9 is insignificant. An attempt also makes to test agreement/disagreement among three groups by the 'F' test. From 'F' test ($F=21.150$; $p<0.000$) it is clear that there exist significant difference of opinion among three respondent groups. This means that null hypothesis is rejected.

7.1.5.3 Evaluation of present credit monitoring and reviewing performance of credit officers in Bangladesh: To measure the strengths/weaknesses of present credit monitoring and reviewing performance of credit officers in Bangladesh, the study developed 09 statements by following the Likert summated five points scale and respondents were asked to express their level of agreement about these 09 statements. Likert summated five points scale ranges from "strongly agree" to "strongly disagree". Out of 09 statements, 05 were positive and 04 were negative statements. In positive statements, "strongly agree' was awarded 5 points and "strongly disagree" was awarded 1 point. In negative statements, "strongly agree" was awarded 1 point and "strongly disagree" was awarded 5 points. In both (positive/negative) statements, "undecided level' was awarded 3 points. According to the methodology (chapter 5), for 09 statements 27(9×3) score is considered as cut off point. Any score more than cut off point is expressed strength/good and less than 27 score is expressed dissatisfaction/weak position of the credit monitoring and reviewing. The survey results are presented in the tables below:

Table# 7.21

Shows the group-wise mean score, standard deviation, cut off point and 't' test of the respondents opinion about credit monitoring and review.

Respondent groups	N	Mean	Std. Deviation	CV (%)	Cut off point	t-value
Credit officers	33	27.76	4.04	14.55	27	1.081
Bad borrowers	12	27.08	2.64	9.76	27	0.105
Good borrowers	15	26.07	1.28	4.91	27	-2.814
Total	60	27.2	3.32	12.22	27	0.467
F-test	F = 1.361; p < 0.265 (Insignificant)					
CO vs BB	t = 0.650 ; p< 0.521(Insignificant)					
CO vs GB	t= 2.176 ; p< 0.035(Significant)					
BB vs GB	t = 1.222 ; p< .240(Insignificant)					

(18) H_0: Credit monitoring and review performance of banks in Bangladesh is not satisfactory

Table 7.18 shows that average score of all respondents is 27.20 which is greater than undecided level score 27. It means that the present credit monitoring and review performance is good and it rejects the null hypothesis.

(19) H_0: There exist no differences of opinion among three respondent groups about the satisfaction of credit monitoring and reviewing performance of banks in Bangladesh

To test the agreement and disagreement among three respondent groups the 'F' test and to test the agreement and disagreement between respondent groups the't' test are used in the study. It is clear from 'F' test that (F=1.361; p<0.265; Insignificant) there exist no difference of opinion among three respondent groups about the strength of credit monitoring and reviewing performance of banks in Bangladesh. This means that it cannot rejects the null hypothesis. It is also clear from't' test that (t=0.650; p< 0.521; Insignificant) there exist no difference of opinion between credit officers (CO) and bad borrowers (BB); bad borrowers (BB) and good borrowers (GB) (t=1.222; p<0.240, Insignificant). But their exist difference of opinion between credit officers (CO) and good borrowers (GB) (t =2.176; p<0.035; Significant).

Table# 7.22

Shows mean score, standard deviation, test of significance and agreement/disagreement among the three respondent groups relating to individual statement

Statements	Mean	SD	t-value	p-value	Result at 5% level	F-vale	p-value	Result at 5% level
Credit officers regularly review the performance of the borrowers	3.23	1.09	1.21	0.230	Ins.	14.839	0.000	Sig.
The loan review or internal control department in banks is not active to detect the criticized credit	3.23	0.96	1.38	0.174	Ins.	9.155	0.000	Sig.
All the relevant information is analyzed in the review of the performance of the borrowers	2.87	1.03	0.73	0.471	Ins.	7.485	0.001	Sig.
Persons assigned for performing review are sufficiently qualified	2.83	0.91	1.07	0.288	Ins.	2.143	0.127	Ins.
All banks do not have individual loan monitoring and review department	3.48	1.14	2.42	0.019	Sig.	0.288	0.751	Ins.
Person assigned for inspection of borrowers business inspects regularly	2.80	0.86	1.34	0.187	Ins.	0.434	0.650	Ins.
Staffs in loan monitoring and review department cannot do their work independently	2.83	1.01	0.97	0.338	Ins.	2.494	0.092	Ins.
Staffs assign for loan monitoring and review does their work properly	2.87	0.87	0.86	0.394	Ins.	0.504	0.607	Ins.
For bad loans, any bank did not take administrative actions against credit officers	3.05	1.03	0.28	0.781	Ins.	4.158	0.021	Sig.

Table 7.22 shows that score of the statement 5 is statistically significant and other statements are not. It is clear from table that there exists significant difference of opinion among respondent groups about the statements 1(Credit officers regularly review the performance of the borrowers); 2 (The loan review or internal control department in banks is not active to detect the criticized credit); 3 (All the relevant information is analyzed in the review of the performance of the borrowers); and 9 (For bad loans, any bank did not take administrative actions against credit officers). There exists no significant differences of opinion among three respondent groups about statements 4 (Persons assigned for performing review are sufficiently

qualified); 5 (All banks do not have individual loan monitoring and review department); 6 (Person assigned for inspection of borrowers business inspects regularly); 7 (Staffs in loan monitoring and review department cannot do their work independently); and 8(Staffs assign for loan monitoring and review does their work properly).

7.1.6 Identification and handling problem loans: After studying existing literature various techniques (which is described in chapter 3, and 4) for handling problem loans were identified and respondents were asked to pass their opinion about techniques credit officers in Bangladesh are applying for handling problem loans. The findings of the respondents' opinions are enumerated in the table below:

7.1.6.1 Techniques of handling problem loans: Respondents were asked to tick which technique out of formulated 08 techniques, credit officers in Bangladesh are used for handling problem loans. The survey results are presented in the table below:

Table# 7.23

Shows the group wise respondent opinions about the techniques, credit officers in Bangladesh are applying for handling problem loans

Aspects	Credit officers (n=33)		Bad borrowers (n=12)		Good borrowers (n=15)		Total (n=60)		Chi	p-value	Result at 5% level
	N	%	n	%	N	%	N	%			
Proving advisory/ counseling services	18	54.5	7	58.3	5	33.3	30	50	2.27	0.321	Ins.
Banks depute representatives in the management position of borrowers organizations	10	30.3	0	0	0	0	10	16.7	9.82	0.007	Sig.
Rescheduling of credit	33	100	12	100	15	100	60	100	-	-	
Waiver of interest	33	100	12	100	12	80	57	95	9.47	0.009	Sig.
Compromise settlement	33	100	8	66.7	12	80	53	88.3	10.84	0.004	Sig.
Legal action against borrowers	33	100	12	100	13	86.7	58	96.7	6.21	0.045	Sig.
Sale of credit to independent organization	7	21.2	2	16.7	2	13.3	11	18.3	0.46	0.796	Ins.
Appointment of an organization to recover the problem credit	17	51.5	2	16.7	6	40	25	41.7	4.42	0.110	Ins.
All of them	2	6.1	0	0	0	0	2	3.3	1.69	0.429	Ins.
Mean	5.64		4.58		4.33		5.1				
SD	1.34		1		1.59		1.46				
CV (%)	23.81		21.74		36.66		28.59				
F- test	**F = 5.902; p< 0.005 (Significant)**										

(20) H_0: Credit officers of banks in Bangladesh failed to use adequate techniques for handling problem loans
(21) H_0: There exists no difference of opinion among three respondent groups about the techniques use by credit officers in handling problem loans

Table7.23 shows the group wise respondents' opinions about techniques credit officers of banks in Bangladesh are applying for handling bad loans and agreement/disagreement about individual technique. Table 7.23 clarifies that on the average credit officers are used 5.64 techniques. Bad borrowers and good borrowers expressed their opinions that credit officers are using on the average 4.58 and 4.33 techniques respectively for handling bad loans and the average of the three groups is 5.10 which mean that credit officers in Bangladesh are using adequate techniques for handling bad loans and it rejected the null hypothesis.

To test the agreement and disagreement among the three respondent groups about individual techniques it was planned to use χ^2 test. It is also clear from χ^2 test that there exit significant difference of opinion about techniques 2, 4, 5, and 6 among three respondents groups.

An attempt was made to test the agreement/ disagreement among three respondent groups about their opinions by 'F' test. From 'F' test ($F=5.902$; $p<0.005$) it is clear that there exist significant differences of opinion among three respondent groups about the techniques credit officers are used in handling problem loans and it rejects the null hypothesis.

7.1.6.2 Evaluation of strength/weakness of present techniques of handling problem loans: To measure strengths/weaknesses of present techniques for handling problem loans, it has been planned in the study to develop 08 statements by following Likert summated five points scale and respondents were asked to express their level of agreement about these 08 statements. Likert summated five point scale ranges from "strongly agree to strongly disagree". Out of 08 statements, 04 were positive and 04 were negative. In positive statements "strongly agree" was awarded 5 points and "strongly disagree" was awarded 1 point. In negative statements, "strongly agree" was awarded 1 point and "strongly disagree" was awarded 5 points. In both (positive and negative) statements, "undecided level" was awarded 3 points. According to the Likert summated five point scale, for 08 statements (8×3) 24 pints were considered as cut off point. A total point of 24 points or more is considered good and less than 24 points indicates weak position of the credit monitoring and review of banks in Bangladesh. Table # 7.24 and 7.25 present the findings of the survey.

Table # 7.24

Shows the mean score, standard deviation, test of significance and 'F' test of respondents' opinions about problem loan handling techniques

Respondent Groups	N	Mean	Std. Deviation	CV (%)	Cut off point	t-value	P-value	Result 5%
Credit officers	33	26.82	3.55	13.23	24	4.563	0.00	Sig.
Bad borrowers	12	25.83	1.27	4.91	24	4.992	0.00	Sig.
Good borrowers	15	26.33	1.54	5.86	24	5.860	0.00	Sig.
Total	60	26.5	2.8	10.57	24	6.916	0.00	Sig.
F-test	F=0.571; p <0.568 (Insignificant)							
CO vs BB	t=1.372 ; p<0.177 (Insignificant)							
Co vs GB	t=0.660 ; p< 0.513 (Insignificant)							
BB vs GB	t= 0.924 ; p< 0.364 (Insignificant)							

(22) H_0: Default loan resolution techniques of banks in Bangladesh are not satisfactory

(23) H_0: There exists no significant difference of opinion among three respondent groups about the techniques now applying by credit officers in handling default loans

Table 7.24 shows that average score of all respondents is 26.50 which is greater than undecided level score 24 points. It means that present problem loan handling techniques are good and it rejects the null hypothesis.

To test the agreement and disagreement among three respondent groups 'F' test, and to test the agreement and disagreement between respondent groups 't' test are used. It is clear from 'F' test that (F=0.571; p<0.568; Insignificant) there exist no difference of opinion among the three respondent groups about the strength of techniques of handling bad loans of banks in Bangladesh. This means that it failed to rejects the null hypothesis. It is also clear from 't' test that (t=1.372; p<0.177; Insignificant) there exist no difference of opinion between credit officers(CO) and bad borrowers(BB); credit officers (CO) and good borrowers (GB) (t=0.660; p<0.513; Insignificant); and between bad borrowers(BB) and good borrowers(GB) (t=0.924;p<0.364, Insignificant).

Table # 7.25

Shows the mean score, standard deviation, test of significance and agreement/disagreement among three respondent groups relating to individual statement

Statements	Mean	SD	t-value	p-value	Result at 5% level	F-vale	p-value	Result at 5% level
Banks have no independent credit classification system for identifying problem credit other than classification systems of Bangladesh Bank	4.00	0.90	6.38	0.000	Sig.	0.659	.521	Ins.
Credit officers immediately take actions to recover the credit when they feel that borrowers is in trouble	3.35	0.94	2.14	0.037	Sig.	0.602	.551	Ins.
Credit officers provide advisory services to the borrowers when they fall in trouble to generate enough money to repay the credit	2.97	0.94	0.18	0.855	Ins.	1.517	.228	Ins.
Waiver of interest is commonly used for handling the problem credit	3.52	0.98	3.05	0.003	Sig.	0.239	.788	Ins.
Banks usually depute credit officers in the management position of borrowers when they fall in trouble	2.17	0.78	6.11	0.000	Sig.	2.531	.088	Ins.
Sale of problem credit is not common in banks	3.92	0.91	5.81	0.000	Sig.	4.970	.010	Sig.
Techniques for handling problem credit are inadequate	3.73	0.82	5.11	0.000	Sig.	0.241	.787	Ins.
Present laws for recovery problem credit are adequate	2.85	0.97	0.89	0.378	Ins.	5.359	.007	Ins.

It is shown in the table 7.25 that the scores of statements 3, 5, and 8 score are less than 03. The other statements scores are more than 03. Respondents' opinions regarding statements 1, 2, 4, 5, 6, and 7 are statistically significant and those of 3 and 8 are not statistically significant. It is also clear from the table that there exists significant difference of opinion among three respondent groups about statement 6 and there exists no difference of opinions among three respondent groups about other statements.

7.1.7.1 Identification of causes of problem loans in Bangladesh: To identify which causes are mostly responsible for problem loans in Bangladesh the researcher studied existing literature and identified various causes of problem loans (which are described in the chapter 3 and 4) and respondents were asked to pass their opinions to what extent they are agree with these causes. In the opinion survey the study used 5 points scale. The scale ranges from strongly agree to strongly disagree where "strongly agree" was awarded 5 points, "agree" was awarded 4 points, "indifferent" was awarded 3 points, "disagree" was awarded 2 points and "strongly disagree" was awarded 1 point. By adding together respondents score, rankings are made to identify which causes are mostly responsible for bad loans in Bangladesh. The survey results are presented in the table below:

Table # 7.26
Shows the group wise respondents individual and total score and rank of the causes of default loan

Causes of loan default	Credit officers		Bad borrowers		Good borrowers		Total	
	Score	Rank	Score	Rank	Score	Rank	Score	Rank
Influence of top executives and directors	130	2	46	7	58	6	234	1
Reluctance of borrowers to repay the credit	138	1	39	17	48	19	225	2
Improper selection of borrowers	122	6	38	19	62	2	222	3
Lack of information about borrowers and their business	126	4	37	22	58	6	221	4
Poor credit culture	126	4	38	19	55	12	219	5
Influence of bureaucrats	112	13	45	9	61	3	218	8
Influence of politicians	118	7	41	13	59	4	218	8
Poor monitoring and review	116	9	46	7	56	9	218	8
Inadequate techniques to handle problem credit	114	10	48	3	56	9	218	8
Policy lending	111	14	49	2	56	9	216	10
Poor industry analysis	125	5	35	25	55	12	215	11
Insider lending	99	24	47	5	63	1	209	13
High interest rate	107	17	50	1	52	16	209	13
Dishonesty of credit officers	110	15	46	7	50	17	206	14
Lack of proper training of credit officers	104	21	40	16	57	7	201	16
Poor remuneration package for credit officers	117	8	38	19	46	21	201	16
Formation of credit committee on the basis of ex-officio rather expertise knowledge	113	12	44	11	42	26	199	17
Import/ export policy of government	98	26	47	5	52	16	197	18
Failure to control and audit the credit process	107	17	35	25	54	13	196	19
Name lending	105	20	36	23	53	14	194	20
Natural calamity	98	26	44	11	49	18	191	21
Improper or faulty documentation	106	19	41	13	43	24	190	22
Poor skills of credit officers	107	17	40	16	42	26	189	23
Inefficient credit interview	113	12	30	26	44	23	187	24
Inadequate credit analysis	98	26	37	22	45	22	180	25
Absence of written credit policy	99	24	41	13	36	27	176	26
Failure to improve collateral position	100	22	25	27	47	20	172	27

Table # 7.26 shows that influence of top executives and directors score the highest (234) and it is considered the most responsible cause for loans default. The other causes e.g. reluctance of borrowers to repay the credit, improper selection of borrowers, lack of information about borrowers and their businesses, poor credit culture are ranked 2nd, 3rd, 4th, and 5th. It is worth mentioning here that first five causes of bad loans are directly connected with the credit management.

7.1.7.2 Agreement/disagreement about causes of default loans among the respondent groups and between groups. It was planned to know the agreement/disagreement about causes of default loans among the respondent groups and between groups by opinion survey. The survey results are presented in the table below:

Table # 7.27
Shows the group-wise respondents' mean score, standard deviation, co-efficient of variation and test of significance

Respondent groups	N	Mean	Std. Deviation	CV (%)	Cut of score	t-value	p-value	Result at 5% level
Credit officers	33	91.48	15.41	16.85	81	3.906	0.00	Sig.
Bad borrowers	12	91.92	9.95	10.82	81	3.802	0.00	Sig.
Good borrowers	15	93.27	4.28	4.59	81	11.093	0.00	Sig.
Total	60	92.02	12.34	13.41	81	6.919	0.00	Sig.
F-test	$F = 0.105; p < 0.901$ (Not significant)							
CO vs BB	$t= 0.110 ; p< 0.913$							
CO vs GB	$t= 0.614 ; p< 0.543$							
BB vs GB	$t = 0.439 ; p< 0.668$							

(24) H_0: There exists no difference of opinion among three respondent groups about causes of default loans

Table 7.26 shows that opinions of credit officers, bad borrowers and good borrowers are statistically significant. It is also clear from the table that there exists no ($F=0.105$; $p<0.901$) significant difference of opinions among three respondent groups. It means that the null hypothesis cannot be rejected.

The study also tried to test the difference of opinion between groups by using 't' test. It is clear from 't' test that there exists no difference of opinions between credit officers and bad borrowers ($t=0.110$; $p< 0.913$; insignificant); between credit officers and good borrowers ($t=0.614$; $p<0.543$; insignificant); and between bad borrowers and good borrowers ($t =0.439$; $p<0.668$; insignificant).

7.1.7.3 Respondents' suggestions about other causes of problem loans: Here respondents were asked to identify other causes of nonperforming loans which were not included in the questionnaire. Majority of the respondents opined that most of the causes of problem loans were included in the questionnaire.

7.1.8 Miscellaneous question: An attempt was made to know the respondents' opinion about some relevant issues of credit management in the study. The following tables present the findings of the opinion survey.

Table # 7.28
Shows the group-wise respondents opinion about problems borrowers are facing at the time of applying for a credit

Problems faced by borrowers at the time of applying for credit	Credit officers	Bad borrowers	Good borrowers	Total	Percentage
	Frequencies	Frequencies	Frequencies		
Reluctance of credit officers	08	04	05	16	16
Non cooperation	06	02	03	11	11
Maintaining various formalities	25	10	14	49	49
Seeking bribe by credit officers	12	03	09	24	24
Total				**100**	**100**

Table 7.28 shows that 49 percent respondents identified various formalities as the main problem borrowers are facing at the time of applying for credit. The demand of bribe by credit officers is ranked as second problem (24 percent).

Table # 7.29
Shows the group wise respondents opinion about credit officers demand of unnecessary information from borrowers

Respondent groups	Opinion				Total	
	Yes		No			
	N	%	N	%	N	%
Credit officers	1	3.0	32	97.0	33	100.0
Bad borrowers	7	58.3	5	41.7	12	100.0
Good borrowers	4	26.7	11	73.3	15	100.0
Total	**12**	**20.0**	**48**	**80.0**	**60**	**100.0**
χ^2 **test**	χ^2 **=17.38 ; p<0.000 (Significant)**					

In the questionnaire, the respondents were asked to pass their opinion whether credit officers seek unnecessary information from borrowers. Table 7.29 shows that 97 percent credit officers and 73 percent good borrowers are of in the opinion that credit officers never seek unnecessary information from borrowers whereas 58 percent bad borrowers opined that credit officers seek unnecessary information from borrowers. In total 80 percent respondents opined that credit officers never seek unnecessary information from borrowers. The study attempted to test the significance of respondents' opinion by using χ^2 test. From χ^2 test is clear that their opinions are statistically significant.

Table #7.30

Shows the group wise respondents opinion about whether credit officer in Bangladesh are helping borrowers in preparing loan proposal

Respondents groups	Opinion				Total	
	Yes		No			
	N	%	N	%	N	%
Credit officers	32	97.0	1	3.0	33	100.0
Bad borrowers	10	83.3	2	16.7	12	100.0
Good borrowers	9	60.0	6	40.0	15	100.0
Total	**51**	**85.0**	**9**	**15.0**	**60**	**100.0**
χ^2 test	**χ^2=11.09 ; p<0.004 (Significant)**					

The study wanted to know whether credit officers in Bangladesh are helping borrowers in preparing loan proposals. Table 7.30 shows that most of the respondents (85 percent) opined that credit officers in Bangladesh are helping borrowers in preparing loan proposals. Most interesting is that 97 percent credit officers opined in favor of this se of bad borrower and good borrower the percentage is 83 percent and 60 percent. Research also tries to test their opinion statistically by using χ^2 test. From χ^2 test (χ^2 =11.09; p<0.004) it is proved that respondents opinion are statistically significant.

Table # 7.31

Shows the group wise respondents' opinion about formalities of getting credit

Respondent groups	Opinion				Total	
	Yes		No			
	N	%	N	%	n	%
Credit officer	26	78.8	7	21.2	33	100.0
Bad borrowers	12	100.0	0	0.0	12	100.0
Good borrowers	13	86.7	2	13.3	15	100.0
Total	**51**	**85.0**	**9**	**15.0**	**60**	**100.0**
χ^2 test	**χ^2=3.15 ; p<0.207 (Insignificant)**					

It is attempted in the study to know whether present formalities for getting loan are lengthy and cumbersome. Table 7.31 shows the survey results. From table it is clear that 85 percent respondents are of the opinion that formalities are lengthy and cumbersome. Individually, 79 percent credit officers, 100 percent bad borrowers and 87 percent good borrowers opined in favor of this. The test of significance was measured by χ^2 test which shows that (χ^2=3.15; p<0.207; Insignificant) respondents' opinions are statistically insignificant

Table# 7.32
Shows the respondents' opinion about the amount of expenses borrowers have to incurred for getting credit

	Credit officers		Bad borrowers		Good borrowers		Total	
	N	%	N	%	N	%	N	%
None	4	12.1	1	8.3	6	40.0	11	8.3
Less than 5%	20	60.6	0	0.0	5	33.3	25	41.7
More than 5% but less than 10%	5	15.2	9	75.0	4	26.7	18	30.0
More than 10% but less than 15%	2	6.1	0	0.0	0	0.0	2	3.3
More than 10%	2	6.1	2	16.7	0	0.0	4	6.7
Total	**33**	**100.0**	**12**	**100.0**	**15**	**100.0**	**60**	**100.0**

The study attempted to know the respondents opinion about the amount of expenses borrowers have to incur to get loans. Table 7.32 shows that there is a wide variation in opinions among respondent groups. About 61 percent credit officers opined that borrowers have to pay less than 5 percent of the entire loan amount to get a loan from the bank, 40 percent good borrowers opined that borrowers pay nothing to get a loan. On the other hand, 75 percent bad borrowers opined that the figure is more than 5 percent but less than 10 percent. On the average 42 percent respondents opined that borrowers have to pay less than 5 percent of the loan amount as bribe and 30 percent opined that the amount is more than 5 percent but less than 10 percent of the sanctioned loan.

Table # 7.33
Shows the respondents' opinion about collateral security

Respondent groups	Opinion				Total	
	Yes		No			
	N	%	N	%	n	%
Credit officers	9	27.3	24	72.7	33	100.0
Bad borrowers	2	16.7	10	83.3	12	100.0
Good borrowers	4	26.7	11	73.3	15	100.0
Total	**15**	**25.0**	**45**	**75.0**	**60**	**100.0**
χ^2 **test**	χ^2 **=0.56 ; p<0.757 (Insignificant)**					

It is planned in the study to know whether respondents believe that collateral security can ensure the smooth repayment of loan. For this in the questionnaire respondents were asked a tag (Y/N) question. The findings of the survey are presented in the table 7.33. Table shows that on an average 75 percent respondent opined that collateral security could not ensure the smooth repayment of loans. Individually 73 percent credit officers, 83 percent bad borrowers and 73% good borrowers opined that collateral security could not ensure the smooth repayment of loan. For testing statistical significance of respondents' opinion attempts was made to use χ^2 test. From χ^2 test it is clear that (χ^2=0.56; p<0.757) respondents opinions are statistically insignificant.

7.2 Comparison of the Case Study and the Opinion Survey Findings

The study followed the mixed methods procedures of the research where first phase is the case study which is followed by the opinion survey. In the opinion survey population was selected from the case study sample banks. So, it is desirable to make comparison of the findings of the case study with the findings of the opinion survey. The following table exhibits the comparison of the case study and the opinion survey findings:

Table#7.34

Shows the Comparative Findings of the Case Study and the Opinion Survey

Basis of comparison	Findings of the case study	Findings of the opinion survey
Credit policy	The case study found that sample banks did not have credit policy	In pilot survey, 100 percent respondents opined that banks have written credit policy
Credit investigation policy	It is found in the case study that sample banks did not have written credit investigation policy.	About 87 respondents opined that banks in Bangladesh have written credit investigation policy
Aspects investigated and sources used for collecting information	Average 01 aspect was investigated by the credit officer	Average 5.23 aspects are investigated by credit officer
Sources of information	Credit officer collected credit information from a few sources	On the average credit officers are used 5.1 sources to collect information
Satisfaction about credit investigation	Credit investigation is not satisfactory	Credit investigation of banks in Bangladesh is satisfactory
Credit analysis policy	The case study found that sample banks did not have credit analysis policy	About 82 respondents are of the opinion that banks have written credit analysis policy
Aspects analyzed in credit analysis	Average 4.4 aspects	Average 7.7 aspects
Satisfaction about credit analysis	Credit analysis of banks is not satisfactory	Credit analysis of banks in Bangladesh is satisfactory
Credit monitoring policy	It is found in the case study that sample banks did not have credit monitoring policy	Average 65 percent respondents opined that banks in Bangladesh have written monitoring policy
Frequency of inspection, monitoring and reviewing	Credit officers inspected a company on the average 1.5 times	Survey was not conducted in this regards.
Aspects of credit monitoring	It is found that only at the time of rescheduling, profitability was evaluated	Average 4.3 aspects are monitor and review
Satisfaction about credit monitoring	The case study found that credit monitoring of the sample banks is not satisfactory	Credit monitoring and review performance of banks in Bangladesh is satisfactory
Average techniques for handling bad loans	Credit officers used techniques like rescheduling of loans, waiver of interest, and legal actions for handling bad loans	Respondents opined that on the average credit officers are using 5.1 techniques.
Satisfaction about present problem loan handling techniques	Not satisfactory	Present problem loans handling techniques are satisfactory
Causes of loan defaults	The case studies identified cursory credit appraisal, top executives influence, bureaucrats influence, politicians influence was the main cause of loan default	In the opinion survey respondents identified top banks executives and directors influence, improper selection of borrowers reluctance of borrowers' politician influence are the main cause of loan default

CHAPTER 8

SUMMARY OF FINDINGS, CONCLUSION AND POLICY RECOMMENDATIONS

8.1 Introduction

Bangladesh as a developing country desires an effective banking system to speed up its pace of development. After independence in 1971, its banking sector was nationalized with a view to making sure balanced development of the country. But it had faced massive loan losses. As a result, in the year 1979, government changed its strategy and took the policy of encouraging private initiative in banking sector. With the introduction of private initiative in banking sector, it was hoped that banking sector would be flourish and efficient. Unfortunately, we have seen serious mismanagement in the banking sector and it is reflected in the size of nonperforming loans. Nonperforming loans began to ascend from mid eighties and it reached at maximum in 1999 (41.11%). Government took several initiatives from 1991 to restore discipline in the banking sector and to downsizing non performing loans. As a result, levels of non performing loans started downsizing from year 2000 and at year end 2005 it reached at 13.55 percent. It is true that rate of nonperforming loans has been downsizing over the years, but still the rate is much higher than advanced economies (Japan 1.3 percent in 2003 where it is 22.13 in Bangladesh). This rate is also higher than neighbor SAARC countries (In 2003 it is 8.8% in India, 13.9% in Srilanka but 22.13% in Bangladesh). These statistics authenticate the weakness of the credit management of banks in Bangladesh. Therefore, attempt was made in this study to identify the causes of weaknesses of credit management through the case study method and the survey method. Summary of findings of this study are presented in the next section.

8.2 Summary of Findings: Summary of findings of the case study and that of the opinion survey are presented in the following subsections:

8.2.1 Credit management process: It was planned in the study to know what steps are followed by banks in Bangladesh in their credit management process. In this regards the study hypothesized that banks in Bangladesh do not follow adequate steps of credit management and there exists differences of opinion among three respondent groups about credit management process. Survey results revealed that banks in

Bangladesh are following adequate steps in their credit management and it rejected the null hypothesis. From 'F' test ($F=2.140$; $p<0.127$) it is clear that there exists no difference of opinion among the three respondent groups and it cannot rejected the null hypothesis

8.2.2 Credit policy: One of the objectives of the study was to study whether banks in Bangladesh have any written credit policy. It is found in the case study that the sample banks did not have any credit policy. But in the pilot survey, 100 percent respondents are of the opinion that banks in Bangladesh have written credit policy. This is may be due to the time gap between the time of the opinion survey and the time of the sanction of the case study loans. Over the period, there may be a change.

8.2.3 Credit investigation policy: The study attempted to know whether banks in Bangladesh have any credit investigation policy and to test it in statistically. To test it statistically, it was hypothesized that banks in Bangladesh have no credit investigation policy and there exists no difference of opinion among three respondent groups about credit investigation policy. It is found from the case study that at the time of sanctioning loans, sample banks did not have any credit investigation policy. But in the opinion survey, 86.7 percent respondents are of the opinion that banks in Bangladesh have written credit investigation policy and it rejected the null hypothesis. The study used χ^2 test, to test agreement disagreement among three respondent groups. It is clear from χ^2 test ($\chi^2=1.21$; $p<0.547$) that there exists no difference of opinion among three respondent groups and it cannot reject the null hypothesis.

8.2.4 Collection of information: The study was aimed at knowing what aspects of credit are investigated by credit officers to collect information. In this regards the study formulated hypotheses that credit officers in Bangladesh do not investigate enough aspects in credit investigation; there exists no difference of opinion among three respondent groups about the aspects credit officers in Bangladesh are being investigating in credit investigation. The case study revealed that on an average 01 aspect was investigated by credit officers but the survey results revealed that credit officers on the average are investigated 5.23 aspects and it rejected the null hypothesis. By using 'F' test the study was intended to know the agreement or disagreement among three respondent groups. From 'F' test, ($F=11.647$; $p<0.000$) it is concluded that there exists difference of opinion among three respondent groups and it rejected the null hypothesis.

8.2.5 Sources of information: This study was intended to study from where credit officers in Bangladesh are collected information. In this regards it was hypothesized that credit officers in Bangladesh are being collecting information about borrowers and their business from fewer sources and there exists no difference of opinion among three respondent groups about the sources of credit information. The case study showed that in majority of the cases, credit officers collected information from only one source. But in the opinion survey, respondents passed their opinions that credit officers are being collecting information from on an average 5 sources and it rejected the null hypothesis. To test statistically the differences of opinions among respondent groups, the study used 'F' test. From 'F' test, ($F=9.578$; $p<0.000$) it is concluded that difference of opinions among three respondent groups are significant; it means that there exists differences of opinion among three respondent groups and it cannot reject the null hypothesis

8.2.6 Strengths of credit investigation: To measure the strengths of present credit investigation of banks in Bangladesh, the study attempted to survey the respondents' opinions by using the Likert Summated Scale technique. In this regard it was hypothesized that credit investigation of banks in Bangladesh is not satisfactory and there exists no difference of opinion among three respondent groups about the strength of credit investigation of banks in Bangladesh. It is found in the opinion survey that average score of the respondent groups opinion is 18.60 and it is more than cut off point 18 and it indicated that present credit investigation of banks in Bangladesh is strong and it rejected the null hypothesis. To test the second hypothesis, the study used 'F' test. From 'F' ($F=0.219$; $p<0.804$; Insignificant) test it is concluded that there exists no differences of opinion among three respondent groups about the strength of credit investigation of banks in Bangladesh. This means, it cannot reject the null hypothesis

8.2.7 Credit analysis: Credit analysis is the most important step in credit management. By credit analysis, credit officers determine the creditworthiness of borrowers. Either granting or rejecting the loan proposal should depend on the result of credit analysis. Some hypotheses were formulated in the study about credit analysis and these hypotheses are: H_0: Credit officers in Bangladesh failed to analyze all relevant aspects of credit analysis; H_0: There exists no difference of opinion among three respondent groups about the aspects considered by credit officers in Bangladesh for credit analysis; H_0: Credit analysis of banks in Bangladesh is not strong/good/satisfactory; H_0: There exists no difference of opinion among three respondent groups about the satisfaction of banks' credit analysis in Bangladesh

In the case study it is observed that sample banks did not have written credit analysis policy. At the time of sanctioning loans sample banks had independent credit manual and they followed it in assessing creditworthiness of borrowers. But the opinion survey did not support it. In the opinion survey, 81.7 percent of respondents opined that banks in Bangladesh have written credit analysis policy. The study attempted to know how many aspects are analyzed by credit officers in credit analysis through opinion survey. In this respect, respondents are of the opinion that on the average 7.7 aspects are analyzed by credit officers and it rejected the null hypothesis. But the case study showed that they analyzed on the average 4.4 aspects in credit analysis. The study was planned to test the agreement level among three respondent groups by using 'F' test. From 'F' test ($F=4.038$; $p<0.023$; Significant) it is clear that there exists differences of opinion among three respondent groups about the aspects of credit analysis and it rejected the null hypothesis. The study also attempted to assess the strength of credit analysis of banks in the opinion survey. From survey it is found that average score of respondents' is 30.43 which is greater than undecided level's score 30. From this finding it is concluded that credit analysis of banks is good and it cannot accepted the null hypothesis. By using 'F' test, the study was intended to test the existence of difference of opinions among three respondent groups statistically. From 'F' test ($F=0.482$; $p<0.602$; Insignificant) it is concluded that there exists no difference of opinion among three respondent groups about the strength of credit analysis of banks in Bangladesh. This means that, it cannot reject the null hypothesis. But the case study showed that credit officers analyzed on the average 4.4 aspects in credit analysis. This different finding may be the result of the time gap between the time of the opinion survey and the time of the sanction of studied loan cases and the introduction of sophisticate credit analysis model.

8.2.8 Credit monitoring: The study was aimed at to know whether sample banks have written credit monitoring policy; what aspects credit officers normally monitor and review in reviewing performance of borrowers and their businesses; and to assess present credit monitoring and reviewing of performance by banks in Bangladesh. In this regard the study hypothesized that banks in Bangladesh do not have credit monitoring and reviewing policy; credit officers in Bangladesh do not adequately monitor and review the performance of borrowers; there exist no differences of opinion among three respondent groups about the aspects, credit officers in Bangladesh usually analyze for reviewing the performance of borrowers; credit monitoring and review of performance by banks in Bangladesh are not satisfactory; and there exists no difference of opinion among three respondent groups about the satisfaction of credit monitoring and reviewing of performance by banks in Bangladesh.

It is observed in the case study that sample banks did not have written credit monitoring and reviewing policy. But in the opinion survey, about 65 percent respondents opined that banks have written monitoring and reviewing policy and it rejected the null hypothesis. The case study showed that credit officers reviewed the borrowers' performance at the time of renewals and rescheduling of loans but the opinion survey revealed that out of formulated 09 aspects of credit review, credit officers on the average review 4.30 aspects and it cannot reject the null hypothesis. The study was planned to test the agreement/disagreement among three respondent groups by 'F' test. From 'F' test it is clear that ($F=21.150$; $p<0.000$) there exist significant differences of opinion among three respondent groups. This means that null hypothesis is rejected. In the opinion survey the study attempted to assess the respondents' satisfaction level by the Likert summated scale technique. The opinion survey found that average score of all respondents is 27.20 which is greater than undecided level 27. It means that present credit monitoring and review performance are satisfactory and it rejected the null hypothesis. The study also used 'F' test to test the differences of opinion among three respondent groups statistically. From 'F' test ($F=1.361$; $p<0.265$; Insignificant) it can be concluded that there exist no difference of opinion among three respondent groups about the satisfaction of credit monitoring and reviewing of performance by banks in Bangladesh and it cannot reject the null hypothesis.

8.2.9 Handling bad loans: The study planned to know, how many techniques credit officers are used in handling bad loans and to assess the satisfaction level of respondents' about present problem loan handling techniques in Bangladesh. From the case studies, it is found that rescheduling of loans, waiver of interest, and legal actions are the common techniques used by banks in handling bad loans. On the other hand, opinion survey revealed that on the average 5.1 techniques are used by credit officers in handling problem loans which indicates that credit officers in Bangladesh are used adequate techniques for handling bad loans and it rejected the null hypothesis. The study also attempted to test the existence of differences of opinion among three respondent groups regarding techniques of handling problem loan by 'F' test. From 'F' test ($F=5.902$; $p<0.005$; Significant) it is clear that there exists significant difference of opinion among three respondent groups about the techniques are used by credit officers in Bangladesh in handling problem loans and it rejected the null hypothesis.

The study also attempted in the opinion survey to assess the respondents' satisfaction/dissatisfaction, and their agreement/disagreement about present bad loans handling techniques by 'F' test. The opinion survey showed that average score of all respondents opinion is 26.50 which is greater than cut off point 24. It means that present problem loan handling techniques are good and it rejected the null hypothesis. The study aimed to test the existence of differences of opinion among three respondent groups about strength of present problem loans handling techniques by 'F' test. It is clear from 'F' test that ($F=0.571$; $p<0.568$; Insignificant) there exist no difference of opinion among three respondent groups about problem loans handling techniques of banks in Bangladesh. This means that it failed to reject the null hypothesis.

8.2.10 Causes of loan default: In the opinion survey, it was planned to identify the causes of loans default in Bangladesh. In the opinion survey respondents identified influence of banks executives and directors as the number one cause of loan default in Bangladesh. The case study supported this finding. In the case study, it is found that out of 10 (ten) loans, 07(seven) loans were sanctioned and rescheduled by the influences of credit officers and banks' executives. Respondents also identified reluctance of borrowers to repay the loans, improper selection of borrowers, lack of information about borrowers and their businesses, poor credit culture as the cause of loan default in Bangladesh.

8.3 Conclusion: From the case study it is clear that credit officers' feasibility studies are nothing but arrangement of some figures only. The most of the figures in the feasibility study report appeared cook and it is supported by the opinion survey viz. individually 97 percent of the credit officers and aggregately 85 percent of the respondents are of the opinion that credit officers in Bangladesh are helping borrowers in preparing loan proposals. In the opinion survey, respondents identified top banks executives' and directors' influence, influence of bureaucrats' and politicians are the most responsible for loan default. The study started with the question that is it true that banks do not make any bad loans. The study got the answer and concludes that banks often make loans which are seriously defective at their beginning and subsequently become problem loans. After studied scholarly literature and also after discussion with the respondents and academicians, the study lists the following policy recommendations to overcome the problems of credit management of financial institutions in Bangladesh.

8.4 Policy Recommendations: The study planned to make some policy recommendations for credit officers, bankers, bank management as well as for the policy makers. The suggested recommendations are:

(1) Credit policy is the anchor of a bank (Mott, 1977). It gives credit officers direction where they will invest, how much they will invest, how they will select borrowers and other credit related issues. It is found in the study that the most of the banks in Bangladesh do not have written credit policy. In this regard, it is suggested that every bank should have a well thought written credit policy.

(2) For assessing creditworthiness of borrowers and prospect of the borrowers' projects it is necessary to collect information about borrowers, their enterprises and the economy. It is found in this study that credit officers are using a few sources for collecting information and investigating a few aspects. It is, therefore, recommended that credit officers should be knowledgeable about sources of information and aspects of credit investigation. Moreover, banks should have a written credit investigation policy.

(3) Studies all over the world proven that in overwhelming majority of the cases, loan losses are due to managerial inefficiency/delinquency and/or product unacceptability. To overcome this problem it is necessary to appraise relevant aspects of credit and it should follow the following sequence: management competence, commercial aspects, technical aspects, and financial strength. Cursory or negligence in appraising any of these sequences will cause loan losses. Therefore, credit officers should be cautious in appraising aspects of credit analysis.

(4) Changes in economic variables, such as demand, supply, international competition, export import policy, fiscal policy, unemployment rate, consumer confidence index, inflation rate and stock markets returns, have strong forecasting power in estimating probability of defaults (Liu and Xu, 2003). So, credit officers

should look at the changes in economic variables and should monitor and review the performance of borrowers in the light of changing economic condition.

(5) Credit analysis task should be given to an independent third party/agency

(6) It is found in the study that credit officers in Bangladesh failed to collect data from any recognized sources. It is observed that Bangladesh is suffering from dearth of data bank. If government or an individual takes initiative to collect and update some important economic information, credit officers can easily use it in forecasting demand, supply, demand supply gap and also could verify the estimates of borrowers. The study suggests that data bank should be established either in government or private initiatives.

(7) The study showed that policy lending and directed lending are causes of loan default. This policy lending and directed lending should be stopped.

(8) To appraise credit proposal, to evaluate performance of borrowers and to measure credit risk, the country as a whole must have solid accounting and disclosure standards that provide accurate, relevant, comprehensive and timely information so that credit officers can assess credit proposal, performance of borrowers and enterprises accurately. To ensure accuracy, accounting system need to be supplemented by auditing system and backed up by enforceable legal penalties for providing fraudulent or misleading information to government agencies and outsiders.

(9) Securitization is one of the important techniques now used in the advanced economies that help the banks avoid the risk of NPLs (Greenspan, 2000). Securitization company should be established in the country.

(10) The study showed that a credit committee is generally formed on the basis of designation. But the study suggests that credit committees should be formed on the basis of sector products line expertise knowledge instead of on designation basis. In this way, the most qualified individuals with the best ability to judge the credit will be include in the committee and will add the value to the loan decision

(11) Competitive mentality like if we do not lend, "X" bank will lend them should be give up.

(12) It is found in the study that the influence of banks' executives and directors' and influence of politicians in preparation of loan proposal and granting decision are most

responsible for non-performing loans. So politicians and top executives should not se allowed to influence in credit appraisal and loan sanction.

(13) Though most of the respondents (68.3%) were not in favor of giving credit analysis task to an independent third party, yet, the study believes that the decision as to who will get credit must be left to private initiative within a context where those making the decisions have a major stake- their own capital and economic livelihood. If this system works properly, those receiving credit would be the most capable of producing the stream of goods and services that would enable the economy to grow. It is also recommended by McDonough in his speech delivered in the 106^{th} Annual Convention and Financial Service Forum of the New York State Credit Officers Association held in New York in 2000.

(14) It is found in the most developed countries that some organizations were incorporated to purchase problem loans. An alternative to recovery of problem loans, the study suggests the sale of it to an independent organization as it was suggested by Behrens (1998).

8.5 Scope for Further Research: The study was planned to cover all the steps of credit management. But each credit management step deserves individual study. Literature supports that each step of credit management is important and needs effective management to reduce loan default. But this study failed to comprehensively analyze each step of credit management. Future researches may look at a number of issues that were not addressed in this study. Therefore, the study suggests the further researches on these issues e.g. How to formulate a credit policy? How a well thought credit policy helps reduce default loan? Effects of credit policy in reducing loan default; How does credit investigation help select good borrower? How does good credit investigation help reduce loan default? What aspects should credit officers analyze in credit analysis? How does credit analysis help select good borrower? How does credit analysis help reduce loan default? Are credit analysis models developed in developed countries are applicable in Bangladesh? Which credit analysis model is suitable for Bangladesh? What aspects are to be monitored and reviewed in evaluating borrower's performance? Which credit grading model is applicable in Bangladesh? How default loans can be handled in Bangladesh? Are techniques of handling default loans in Bangladesh sufficient? Finally, future studies may also attempt to take into consideration other important issues in credit management which were not captured in this study.

APPENDIXES

Appendix I: Detail tables relating to chapter 7

Table # 1

Shows the group-wise respondents opinion about strength/weakness of the present credit investigation of banks in Bangladesh

Statements	Credit officers				Bad borrowers				Good borrowers				Total				F-vale	p-value
	Mean	SD	t-value	p-value	Mean	SD	t-value	p-value	Mean	SD	t-value	p-value	Mean	SD	t-value	p-value		
It is difficult to collect information through credit investigation	3.3	1.05	1.64	0.111	2.4	1.00	3.45	0.005	2.2	1.01	4.55	0.000	2.9	1.13	0.51	0.613	7.263	0.002
The existing sources of information are authentic	3.2	0.85	1.35	0.186	3.8	0.58	7.92	0.000	3.5	1.19	2.41	0.030	3.4	0.92	2.50	0.015	2.518	0.09
Credit officers are not adequately trained for handling credit investigation	3.3	1.01	1.71	0.098	2.9	1.16	0.50	0.630	3.3	0.98	1.76	0.100	3.2	1.03	1.12	0.269	0.651	0.526
The credit officers properly	3.4	0.96	2.39	0.023	3.4	0.79	2.91	0.014	3.3	1.05	1.64	0.123	3.4	0.94	2.44	0.018	0.026	0.975
The credit officer does not maintain the master file for credit investigation	2.1	0.5	10.34	0.000	2.3	0.78	5.16	0.000	2.5	1.06	2.71	0.017	2.2	0.74	6.21	0.000	1.793	0.176
There are prescribed guidelines for collecting information in the banks	3.6	0.79	4.36	0.000	3.7	0.78	5.16	0.000	3.4	1.64	1.40	0.183	3.6	1.05	3.28	0.002	0.232	0.794

Table# 2
Shows the group-wise respondents opinion about strength/weakness of the present credit investigation of banks in Bangladesh

Respondent Groups	N	Mean	Std. Deviation	CV (%)	M	t-value
Credit officers	33	18.76	1.77	9.43	18	2.467
Bad borrowers	12	18.58	2.64	14.23	18	0.761
Good borrowers	15	18.27	3.24	17.74	18	0.323
Total	60	18.6	2.35	12.65	18	1.978
F-test	$F = 0.219$; $p < 0.804$ (Not significant)					

Table # 3

Shows the group-wise respondents opinion about strength/weakness of the present credit analysis of banks in Bangladesh

Statements	Credit officers				Bad Borrowers				Good Borrowers				Total				F-vale	p- value
	Mean	SD	t-value	p-value	Mean	SD	t-value	p-value	Mean	SD	t-value	p-value	Mean	SD	t-value	p-value		
Credit analysis largely depends on reputation and relationship with the borrowers	3.42	1.0	2.41	0.022	3.67	0.65	5.92	0.000	3.47	1.06	2.55	0.023	3.48	0.95	2.90	0.005	0.284	0.754
Market price of the share of the applying company is considered for credit analysis	3.00	1.3	0.00	1.000	3.17	0.94	1.04	0.321	2.6	1.18	1.95	0.072	2.93	1.21	0.33	0.741	0.844	0.435
Corporate life cycle is never considered in credit analysis	2.33	0.82	4.69	0.000	2.67	0.89	2.13	0.057	3.07	1.33	0.30	0.767	2.58	1.01	2.39	0.020	2.931	0.061
Corporate personality (i.e.) effective organization, financial reporting and accounting policy) is not considered for credit analysis	2.48	1.12	2.67	0.012	2.67	0.89	2.13	0.057	4	1.31	4.39	0.001	2.9	1.28	0.45	0.655	9.573	0.000
Person assigned for credit analysis is sufficiently qualified	3.12	0.99	0.70	0.491	3.17	0.72	1.36	0.202	3.53	0.83	3.67	0.003	3.23	0.91	1.45	0.152	1.105	0.338
Information needed in the model for credit analysis cannot easily found	3.82	0.88	5.35	0.000	2.67	0.89	2.13	0.057	3.8	0.94	4.89	0.000	3.58	1.0	3.33	0.001	7.815	0.001
Credit officer always consider industry data in credit analysis	2.76	1.17	1.18	0.247	2.33	0.78	4.93	0.000	2.93	1.53	0.26	0.797	2.72	1.21	1.33	0.189	0.859	0.429
Payment and amount of income tax are considered in credit analysis	3.06	1.12	0.31	0.760	2.33	0.78	4.93	0.000	1.53	0.74	11.41	0.000	2.53	1.16	2.33	0.023	12.945	0.000
In qualitative judgment credit officer put their options in such a way that would result average performance	3.36	0.96	2.15	0.039	3.83	0.39	12.23	0.000	3.73	1.49	2.81	0.014	3.55	1.05	3.01	0.004	1.197	0.310
Information used in credit analysis is authentic	3.12	0.82	0.84	0.407	3.17	0.94	1.04	0.321	2.27	0.8	5.24	0.000	2.92	0.91	0.51	0.615	6.016	0.004

Table # 4

Shows the group-wise respondents opinion about strength/weakness of the present credit analysis of banks in Bangladesh

Respondent groups	N	Mean	Std. Deviation	CV (%)	M	t-value
Credit officers	33	30.48	3.675	12.06	30	0.750
Bad borrowers	12	29.67	2.995	10.1	30	-0.382
Good borrowers	15	30.93	2.84	9.18	30	1.268
Total	60	30.43	3.331	10.95	30	1.000
F-test	F = 0.482; p < 0.602 (Not significant)					

Table # 5

Shows the group-wise respondents opinion about strength/weakness of the present credit review and monitoring of banks in Bangladesh

Statements	Credit officers				Bad borrowers				Good borrowers				Total					
	Mean	SD	t-value	p-value	Mean	SD	t-value	p-value	Mean	SD	t-value	p-value	Mean	SD	t-value	p-value	F-vale	p- value
Credit officers regularly review the performance of the borrowers	3.79	0.65	6.98	0.000	2.83	1.03	0.95	0.363	2.33	1.23	3.13	0.007	3.23	1.09	1.21	0.230	14.839	0.000
The loan review or internal control department in banks is not active to detect the criticized credit	2.82	1.01	1.02	0.314	3.92	0.29	18.22	0.000	3.60	0.74	4.66	0.000	3.23	0.96	1.38	0.174	9.155	0.000
All the relevant information is analyzed in the review of the performance of the borrowers	3.18	0.95	1.09	0.285	3.00	0.95	0.00	1.000	2.07	0.88	6.07	0.000	2.87	1.03	0.73	0.471	7.485	0.001
Persons assigned for performing review are sufficiently qualified	3.03	0.98	0.18	0.862	2.75	0.75	1.91	0.082	2.47	0.74	4.11	0.001	2.83	0.91	1.07	0.288	2.143	0.127
All banks do not have individual loan monitoring and review department	3.39	1.2	1.87	0.071	3.50	0.90	3.19	0.009	3.67	1.23	3.13	0.007	3.48	1.14	2.42	0.019	0.288	0.751
Person assigned for inspection of borrowers business inspects regularly	2.73	0.91	1.70	0.098	3.00	0.95	0.00	1.000	2.80	0.68	1.69	0.113	2.80	0.86	1.34	0.187	0.434	0.650
Staffs in loan monitoring and review department cannot do their work independently	3.06	1.03	0.33	0.740	2.33	0.65	5.92	0.000	2.73	1.10	1.41	0.180	2.83	1.01	0.97	0.338	2.494	0.092
Staffs assign for loan monitoring and review does their work properly	2.97	0.85	0.20	0.841	2.75	0.75	1.91	0.082	2.73	1.03	1.51	0.154	2.87	0.87	0.86	0.394	0.504	0.607
For bad loans, any bank did not take administrative actions against credit officers	2.79	1.02	1.18	0.246	3.00	1.04	0.00	1.000	3.67	0.82	4.69	0.000	3.05	1.03	0.28	0.781	4.158	0.021

Table # 6

Shows the group-wise respondents opinion about strength/weakness of the present credit review and monitoring of banks in Bangladesh

Respondent groups	N	Mean	Std. Deviation	CV (%)	M	t-value
Credit officers	33	27.76	4.04	14.55	27	1.081
Bad borrowers	12	27.08	2.64	9.76	27	0.105
Good borrowers	15	26.07	1.28	4.91	27	-2.814
Total	60	27.2	3.32	12.22	27	0.467
F-test	$F = 1.361; p < 0.265$ (Not significant)					

Table # 7

Shows the group-wise respondents opinion about strength/weakness of the present credit handling techniques are using by banks in Bangladesh

Statements	Credit officers				Bad borrowers				Good borrowers				Total				F-vale	p- value
	Mean	SD	t-value	p-value	Mean	SD	t-value	p-value	Mean	SD	t-value	p-value	Mean	SD	t-value	p-value		
Banks have no independent credit classification system for identifying problem credit other than classification systems of Bangladesh Bank	3.88	0.99	5.11	0.000	4.17	0.39	17.23	0.000	4.13	0.99	6.56	0.000	4.00	0.90	6.38	0.000	0.659	.521
Credit officers immediately take actions to recover the credit when they feel that borrowers is in trouble	3.45	0.97	2.67	0.012	3.33	0.89	2.13	0.057	3.13	0.92	0.81	0.431	3.35	0.94	2.14	0.037	0.602	.551
Credit officers provide advisory services to the borrowers when they fall in trouble to generate enough money to repay the credit	3.15	1.03	0.84	0.409	2.67	0.89	2.13	0.057	2.80	0.68	1.69	0.113	2.97	0.94	0.18	0.855	1.517	.228
Waiver of interest is commonly used for handling the problem credit	3.52	0.97	3.08	0.004	3.67	1.30	2.96	0.013	3.40	0.74	3.11	0.008	3.52	0.98	3.05	0.003	0.239	.788
Banks usually depute credit officers in the management position of borrowers when they fall in trouble	2.36	0.78	4.71	0.000	2.00	0.00	-	-	1.87	0.99	6.56	0.000	2.17	0.78	6.11	0.000	2.531	.088
Sale of problem credit is not common in banks	3.64	1.03	3.57	0.001	4.00	0.00	-	-	4.47	0.74	11.41	0.000	3.92	0.91	5.81	0.000	4.970	.010
Techniques for handling problem credit are inadequate	3.67	0.85	4.53	0.000	3.83	0.58	8.22	0.000	3.80	0.94	4.89	0.000	3.73	0.82	5.11	0.000	0.241	.787
Present laws for recovery problem credit are adequate	3.15	1.00	0.86	0.396	2.17	0.58	8.22	0.000	2.73	0.88	1.76	0.100	2.85	0.97	0.89	0.378	5.359	.007

Table # 8

Shows the group-wise respondents individual cause mean score, standard deviation, 't' test, total respondents mean score, standard deviation, 't' test and 'F' test

Causes of loan default	Credit officers				Bad borrowers				Good borrowers				Total				F-vale	p- Value
	Mean	SD	t-value	p-value	Mean	SD	t-value	p-value	Mean	SD	t-value	p-value	Mean	SD	t-value	p-value		
Absence of written credit policy	3.00	1.41	0.00	1.000	3.42	0.79	3.05	0.011	2.40	0.74	4.66	0.000	2.93	1.21	0.33	0.741	2.620	0.082
Inefficient credit interview	3.42	1.32	1.83	0.077	2.50	0.67	4.29	0.001	2.93	0.88	0.46	0.655	3.12	1.17	0.59	0.558	3.242	0.046
Lack of information about borrowers and their business	3.82	0.92	5.12	0.000	3.08	0.90	0.51	0.620	3.87	0.35	14.28	0.000	3.88	0.85	4.60	0.000	4.116	0.021
Poor industry analysis	3.79	1.02	4.45	0.000	2.92	1.56	0.29	0.774	3.67	0.49	7.85	0.000	3.58	1.09	3.06	0.003	3.047	0.055
Lack of proper training of credit officers	3.15	1.12	0.77	0.447	3.33	0.78	2.43	0.033	3.80	0.41	11.21	0.000	3.35	0.95	2.12	0.039	2.509	0.090
Influences of bureaucrats	3.39	1.09	2.06	0.048	3.75	0.97	4.44	0.001	4.07	0.96	6.40	0.000	3.63	1.06	3.41	0.001	2.274	0.112
Influences of top executive and directors	3.94	0.83	6.51	0.000	3.83	0.94	5.07	0.000	3.87	1.06	4.71	0.000	3.90	0.90	5.74	0.000	0.073	0.930
Influences of politicians	3.58	1.00	3.33	0.002	3.42	1.08	2.23	0.047	3.93	0.88	6.07	0.000	3.63	0.99	3.66	0.001	1.031	0.363
Inadequate credit analysis	2.97	1.40	0.12	0.903	3.08	1.51	0.30	0.767	3.00	1.13	0.00	1.000	3.00	1.34	0.00	1.000	0.031	0.970
Poor skills of credit officers	3.24	0.97	1.42	0.165	3.33	1.56	1.22	0.250	2.80	1.15	1.00	0.335	3.15	1.15	0.75	0.457	0.957	0.390
Improper or faulty documentation	3.21	0.96	1.26	0.218	3.42	0.51	4.73	0.001	2.87	1.19	0.63	0.540	3.17	0.96	1.02	0.313	1.185	0.313
Formation of credit committee on the basis of ex-officio rather expertise knowledge	3.42	1.03	2.34	0.026	3.67	0.78	4.93	0.000	2.80	1.15	1.00	0.335	3.32	1.05	1.75	0.085	2.823	0.068

Table 8 Continued

Failure to control and audit the credit process	3.24	1.00	1.38	0.178	2.92	1.44	0.32	0.756	3.60	0.74	4.66	0.000	3.27	1.06	1.46	0.149	1.437	0.246
Failure to improve collateral position	3.03	1.16	0.15	0.883	2.08	1.16	4.56	0.001	3.13	1.06	0.70	0.493	2.87	1.19	0.63	0.533	3.606	0.034
Poor monitoring and review	3.52	1.03	2.90	0.007	3.83	0.39	12.23	0.000	3.73	0.70	5.99	0.000	3.63	0.86	4.21	0.000	0.726	0.488
Inadequate techniques to handle problem credit	3.45	1.09	2.37	0.024	4.00	0.00	-	-	3.73	0.70	5.99	0.000	3.63	0.90	4.02	0.000	1.780	0.178
Insider lending	3.00	1.37	0.00	1.000	3.92	0.67	7.89	0.000	4.20	0.68	10.14	0.000	3.48	1.23	2.24	0.029	7.060	0.002
Dishonesty of credit officers	3.33	0.89	2.13	0.041	3.83	0.83	5.74	0.000	3.33	0.72	2.63	0.020	3.43	0.85	2.91	0.005	1.696	0.193
Reluctance of borrowers to repay the credit	4.18	0.58	11.69	0.000	3.25	0.75	1.91	0.082	3.20	0.68	1.69	0.113	3.75	0.79	5.45	0.000	16.562	0.000
High interest rate	3.24	1.09	1.26	0.215	4.17	1.03	6.53	0.000	3.47	0.83	3.25	0.006	3.48	1.07	2.58	0.012	3.606	0.034
Poor credit culture	3.82	0.81	5.82	0.000	3.17	0.94	1.04	0.321	3.67	0.49	7.85	0.000	3.65	0.80	4.67	0.000	3.144	0.051
Poor remuneration package for credit officers	3.55	0.97	3.26	0.003	3.17	1.03	0.95	0.363	3.07	0.96	0.42	0.682	3.35	0.99	2.03	0.047	1.492	0.234
Policy lending	3.36	0.82	2.52	0.017	4.08	0.67	9.26	0.000	3.73	0.46	9.12	0.000	3.60	0.76	4.54	0.000	4.749	0.012
Name lending	3.18	1.33	0.78	0.443	3.00	1.71	0.00	1.000	3.53	0.52	5.86	0.000	3.23	1.27	1.04	0.302	0.643	0.529
Natural calamity	2.97	1.02	0.17	0.867	3.67	1.23	3.13	0.010	3.27	1.22	1.27	0.224	3.18	1.13	0.92	0.364	1.782	0.177
Import/ export policy of Govt.	2.97	1.24	0.14	0.890	3.92	1.00	5.28	0.000	3.47	1.06	2.55	0.023	3.28	1.19	1.35	0.182	3.228	0.047
Improper selection of borrowers	3.70	1.16	3.47	0.002	3.17	0.94	1.04	0.321	4.13	0.83	7.82	0.000	3.70	1.08	3.72	0.000	2.847	0.066

Table # 9

Shows the group-wise respondents mean score, standard deviation, total mean score, standard deviation and 'F' test

Causes of loan default	Credit officers		Bad borrowers		Good borrowers		Total		F-vale	p- value
	Mean	SD	Mean	SD	Mean	SD	Mean	SD		
Absence of written credit policy	3.00	1.41	3.42	0.79	2.40	0.74	2.93	1.21	2.620	0.082
Inefficient credit interview	3.42	1.32	2.50	0.67	2.93	0.88	3.12	1.17	3.242	0.046
Lack of information about borrowers and their business	3.82	0.92	3.08	0.90	3.87	0.35	3.68	0.85	4.116	0.021
Poor industry analysis	3.79	1.02	2.92	1.56	3.67	0.49	3.58	1.09	3.047	0.055
Lack of proper training of credit officers	3.15	1.12	3.33	0.78	3.80	0.41	3.35	0.95	2.509	0.090
Influences of bureaucrats	3.39	1.09	3.75	0.97	4.07	0.96	3.63	1.06	2.274	0.112
Influences of top executive and directors	3.94	0.83	3.83	0.94	3.87	1.06	3.90	0.90	0.073	0.930
Influences of politicians	3.58	1.00	3.42	1.08	3.93	0.88	3.63	0.99	1.031	0.363
Inadequate credit analysis	2.97	1.40	3.08	1.51	3.00	1.13	3.00	1.34	0.031	0.970
Poor skills of credit officers	3.24	0.97	3.33	1.56	2.80	1.15	3.15	1.15	0.957	0.390
Improper or faulty documentation	3.21	0.96	3.42	0.51	2.87	1.19	3.17	0.96	1.185	0.313
Formation of credit committee on the basis of ex-officio rather expertise knowledge	3.42	1.03	3.67	0.78	2.80	1.15	3.32	1.05	2.823	0.068
Failure to control and audit the credit process	3.24	1.00	2.92	1.44	3.60	0.74	3.27	1.06	1.437	0.246
Failure to improve collateral position	3.03	1.16	2.08	1.16	3.13	1.06	2.87	1.19	3.606	0.034
Poor monitoring and review	3.52	1.03	3.83	0.39	3.73	0.70	3.63	0.86	0.726	0.488
Inadequate techniques to handle problem credit	3.45	1.09	4.00	0.00	3.73	0.70	3.63	0.90	1.780	0.178
Insider lending	3.00	1.37	3.92	0.67	4.20	0.68	3.48	1.23	7.060	0.002
Dishonesty of credit officers	3.33	0.89	3.83	0.83	3.33	0.72	3.43	0.85	1.696	0.193
Reluctance of borrowers to repay the credit	4.18	0.58	3.25	0.75	3.20	0.68	3.75	0.79	16.562	0.000
High interest rate	3.24	1.09	4.17	1.03	3.47	0.83	3.48	1.07	3.606	0.034
Poor credit culture	3.82	0.81	3.17	0.94	3.67	0.49	3.65	0.80	3.144	0.051
Poor remuneration package for credit officers	3.55	0.97	3.17	1.03	3.07	0.96	3.35	0.99	1.492	0.234
Policy lending	3.36	0.82	4.08	0.67	3.73	0.46	3.60	0.76	4.749	0.012
Name lending	3.18	1.33	3.00	1.71	3.53	0.52	3.23	1.27	0.643	0.529
Natural calamity	2.97	1.02	3.67	1.23	3.27	1.22	3.18	1.13	1.782	0.177
Import/ export policy of Govt.	2.97	1.24	3.92	1.00	3.47	1.06	3.28	1.19	3.228	0.047
Improper selection of borrowers	3.70	1.16	3.17	0.94	4.13	0.83	3.70	1.08	2.847	0.066

Table # 10
Shows the agreement/disagreement among three respondents groups

Respondent groups	N	Mean	Std. Deviation	CV (%)	M	t-value
Credit officers	33	91.48	15.41	16.85	81	3.906
Bad borrowers	12	91.92	9.94	10.82	81	3.802
Good borrowers	15	93.27	4.28	4.59	81	11.093
Total	60	92.02	12.33	13.41	81	6.919
F-test	**F = 0.105; p < 0.901 (Not significant)**					

Appendix II: Questionnaire

Research Topic: Credit Management of Financial Institutions of Bangladesh

QUESTIONNAIRE

Part- A (Personal Information)

Name of the respondent:---

(Optional)

A 1: Please state to which group do you belong? (Please tick one)

(1) Credit officer [ ]

(2) Businessmen [ ]

(3) Opinion leader [ ]

A 2: Your age-group. (Please tick one)

(1) 30 years or below [ ] (2) 31 years to 40 years [ ]

(3) 41 years to 50 years [ ] (4) 51 years and above [ ]

A 3: Main educational discipline. (Please tick one)

(1) Arts [ ] (2) Science [ ] (3) Business/ commerce [ ]

A 4: Education and training in terms of years of schooling.

(1) Up to 13 years [ ] (2) 14 years to 17 years [ ]

(3) 18 years to 19 years [ ] (4) 20 years or more [ ]

A 5: Experience in the present occupation.

(1) Up to 5 years [ ] (2) 6 to 10 years [ ]

(3) 11 years to 15 years [ ] (4) More than 15 years [ ]

Part- B
(Credit Management Process)

B 1: Please state, which of the following steps are included in the credit management process of the banks in Bangladesh (Please Tick).

(1) Strategic plan for target markets [ ] (2) Credit policy formulation [ ]

(3) Client request/ Relationship marketing [ ] (4) Client interview [ ]

(5) Credit investigation [ ] (6) Credit analysis [ ]

(7) Preparation of proposal [ ] (8) Credit approval [ ]

(9) Credit negotiation (Acceptance of tenor, pricing, repayment, covenants, security by borrowers) [ ]

(10) Documentation [ ] (11) Loan disbursement [ ]

(12) Internal audit (to ensure compliance with lending guidelines) [ ]

(13) Monitoring and Review [ ] (14) Problem loan resolution [ ]

(15) Loan recovery [ ]

Part-C (Credit Investigation)

Credit Investigation: Credit investigation is the process of acquiring sufficient information from different sources to determine a loan applicant's willingness and capacity to service the proposed loan. Credit officer usually can obtain information from the following sources 1) Primary customers and trade suppliers 2) Income tax/VAT authority 3) Banks and trade checks 4) Sales and distribution channels 5) Credit rating agencies 6) Labor union 7) Government agencies 8) Reference materials and periodicals 9) Public records 10) Commercial publications 11) Stock exchange publications 12) Special purpose directories 13) Articles in published trade publications.14) Newspaper reports, market bulletins, etc.

C 1 Do Bangladeshi banks have any credit investigation policy (In terms of information they need and their sources)? Please tick.

(1) Yes [ ] (2) No [ ]

C 2 From the following list, please tick which of the items, a credit officer in Bangladesh generally investigate to collect information about borrowers, their business, assets, and liability position.

(1) Physical inspection of the security [ ] (2) Payment of utility bill [ ]

(3) Bank transaction [ ] (4) Creditors payment [ ]

(5) Collection of debts [ ] (6) Income tax payment [ ]

(7) Assets of borrowers/ business [ ] (8) Employee and employers relations [ ]

(9) Visit of prime competitors business [ ]

C 3 Please tick the list of the sources where from, credit officers of banks in Bangladesh generally collect information about borrowers and their business other than information contain in the application form.

1	Creditors/Suppliers		2	Credit information Bureau	
3	Commercial publications		4	Service provider of borrowers	
5	Special purpose directories		6	Articles of other published trade publications	
7	Present or previous credit file of borrowers		8	Income tax/VAT authority	
9	Borrowers banks		10	Credit rating agencies	
11	Government agencies		12	News paper	
13	Customers		14	Competitors	
15	Ambassador or high commission office		16	Internet	

C 4 Please suggests the other sources from where a credit officer can collect information.

C 5 Please tick your level of agreement about the following issues of credit investigation of banks in Bangladesh.

S.N.	Statements	Strongly Agree	Agree	Indifferent	Disagree	Strongly Disagree
1	It is difficult to collect information through credit investigation.	1	2	3	4	5
2	The existing sources of information are authentic.	5	4	3	2	1
3	Credit officers are not adequately trained for handling credit investigation.	1	2	3	4	5
4	The credit officers properly investigate all the matters set in the credit investigation policy.	5	4	3	2	1
5	The credit officer does not maintain the master file for credit investigation.	1	2	3	4	5
6	There are no prescribed guidelines for collecting information in the banks.	1	2	3	4	5

Part-D (Credit Analysis)

Credit Analysis: Credit analysis is the process whereby both quantifiable and subjective factors are evaluated simultaneously. Credit officer in modern credit analysis generally analyze the followings: a) Repeated relationship b) Economic condition c) Corporate life cycle (whether borrowers business is growing, matured, or declining position) d) Market price of the share e) Corporate personality (whether borrowers are maintaining good accounting system, run the business smoothly) f) Industry data g) Accounting information etc.

D 1 Do Bangladeshi banks have any written credit analysis policy i.e. what aspects a credit officer should analyze for each type of credit.

(1) Yes [ ] (2) No [ ]

D 2 Please tick which of the following aspects credit officers consider for credit analysis in Bangladesh.

(1) Profitability [ ] (2) Marketability [ ]
(3) Corporate life cycle [ ] (4) Corporate personality [ ]
(5) Management ability [ ] (6) Collateral position of borrowers [ ]
(7) Competitive position [ ] (8) Future of industry [ ]
(9) International competition [ ] (10) Fiscal policy of the Government [ ]
(11) Fiscal policy of importing or exporting countries [ ]

D 3 Please state other aspects do you believe to be more important and should be included in credit analysis.

D 4 Do you suggest that the credit analysis task should be given to be an independent third party/ agency?

(1) Yes [ ] (2) No [ ]

D 5 Please put your arguments in favor of your suggestion.

D 6 Please tick your level of agreement about the following issues of credit analysis of banks in Bangladesh.

S.No.	Statements	Strongly Agree	Agree	Indifferent	Disagree	Strongly Disagree
1	Credit analysis largely depends on reputations and relationship with the borrowers.	1	2	3	4	5
2	Market price of the share of the applying company is considered for credit analysis.	5	4	3	2	1
3	Corporate life cycle is never considered in credit analysis.	1	2	3	4	5
4	Corporate personality (i.e. effective organization, financial reporting, and accounting policy) is considered for credit analysis.	5	4	3	2	1
5	Person assigned for credit analysis is sufficiently qualified.	5	4	3	2	1
6	Information needed in the model for credit analysis cannot easily found.	1	2	3	4	5
7	Credit officer always consider industry data in credit analysis.	5	4	3	2	1
8	Payment and amount of income tax are considered in credit analysis.	5	4	3	2	1
9	In qualitative judgment credit officer put their options in such a way that would result average performance.	1	2	3	4	5
10	Information used in credit analysis is authentic.	5	4	3	2	1

Part-E (Credit Monitoring and Review)

Credit Monitoring and Review: Credit review means administration of credit and evaluation of the quality after they are booked, counseling and assisting borrowers in strengthening their credit, grading the credit regularly and informing higher management about the condition of the loan portfolio on a regular basis for taking necessary actions. Loan monitoring and review generally requires a) Setting up of individual credit review department b) Analysis of all the relevant information c) Up dating risk rating d) Administrative actions for any discrepancy e) Regular information to the higher authority etc.

E 1 Do Bangladeshi banks have any set policies for monitoring and reviewing the performance of borrowers? (Please tick)

(1) Yes [ ] (2) No [ ]

E 2 If the answer of question E 1 is yes please tick which of the following aspects credit officers usually analyze for reviewing the performance of borrowers.

(1) Financial statements	[ ]	(2) Repayment of loan	[ ]
(3) Economic condition	[ ]	(4) Risk up dating	[ ]
(5) Purpose of the loan	[ ]	(6) Repayment sources	[ ]
(7) Documentation	[ ]	(8) Security	[ ]
(9) Regulatory compliance	[ ]	(10) Others (Please specify)	

E 3 Please tick your level of agreement about the following issues of credit monitoring and review performance of banks in Bangladesh.

SL. No.	Statements	Strongly Agree	Agree	Indifferent	Disagree	Strongly Disagree
1	Credit officers regularly review the performance of the borrowers.	5	4	3	2	1
2	The loan review or internal control department in banks is not active to detect the criticized credit.	1	2	3	4	5
3	All the relevant information is analyzed in the review of the performance of the borrowers.	5	4	3	2	1
4	Persons assigned for performing review are sufficiently qualified.	5	4	3	2	1
5	All banks do not have individual loan monitoring and review department.	1	2	3	4	5
6	Person assigned for inspection of borrowers business inspects regularly.	5	4	3	2	1
7	Staffs in loan monitoring and review department cannot do their work independently.	1	2	3	4	5
8	Staffs assign for loan monitoring and review does their work properly.	5	4	3	2	1
9	For bad loans, any bank did not take administrative actions against credit officers.	1	2	3	4	5

Part-F (Handling Problem Credit)

Identification and Resolution of Problem Credit: Identifications and early dealings with the problem credit will reduce the chance of losses. Generally identification and handling problem credit includes: a) Early identification of sign of nonperforming credit b) Adequate techniques for handling nonperforming credit c) Laws for handling problem credit d) Regulatory steps taken by central bank etc.

F 1 Which of these techniques banks in Bangladesh have been applying for handling nonperforming credit? (Please tick)

(1) Providing advisory/counseling services [ ]

(2) Banks depute representatives in the management position of borrower's organizations [ ]

(3) Rescheduling of credit [ ]

(4) Waiver of interest [ ]

(5) Compromise settlement [ ]

(6) Legal action against borrowers [ ]

(7) Sale of credit to independent organization [ ]

(8) Appointment of an organization to recover the problem credit [ ]

(9) All of them [ ]

F 2 Please suggests other ways (if any) you believe will be more effective for handling nonperforming credit.

F 3 Please tick, your level of agreement about the following issues of nonperforming credit handling of banks in Bangladesh.

SL. No.	Statements	Strongly Agree	Agree	Indifferent	Disagree	Strongly Disagree
1	Banks have no independent credit classification system for identifying problem credit other than classification systems of Bangladesh Bank.	1	2	3	4	5
2	Credit officers immediately take actions to recover the credit when they feel that borrowers is in trouble.	5	4	3	2	1
3	Credit officers provide advisory services to the borrowers when they fall in trouble to generate enough money to repay the credit.	5	4	3	2	1
4	Wavier of interest is commonly used for handling the problem credit.	1	2	3	4	5
5	Banks usually depute credit officers in the management position of borrowers when they fall in trouble.	5	4	3	2	1
6	Sale of problem credit is common in banks.	5	4	3	2	1
7	Techniques for handling problem credit are inadequate.	1	2	3	4	5
8	Present laws for recovery problem credit are adequate.	5	4	3	2	1

PART-G

(Perception of Respondent about Causes of Problem Credit)

G 1 Please state your level of agreement about the causes of nonperforming credit in Bangladesh.

SL.No	Causes	Strongly Agree 5	Agree 4	Indifferent 3	Disagree 2	Strongly Disagree 1
1	Absence of written credit policy.					
2	Inefficient credit interview.					
3	Lack of information about borrowers and their business.					
4	Poor industry analysis.					
5	Lack of proper training of credit officers.					
6	Influences of bureaucrats.					
7	Influences of top executive and directors.					
8	Influences of politicians.					
9	Inadequate credit analysis.					
10	Poor skills of credit officers.					
11	Improper or faulty documentation					
12	Formation of credit committee on the basis of ex-officio rather expertise knowledge.					
13	Failure to control and audit the credit process.					
14	Failure to improve collateral position.					
15	Poor monitoring and review.					
16	Inadequate techniques to handle problem credit.					
17	Insider lending.					
18	Dishonesty of credit officers.					
19	Reluctance of borrowers to repay the credit.					
20	High interest rate.					
21	Poor credit culture.					
22	Poor remuneration package for credit officers.					
23	Policy lending.					
24	Name lending.					
25	Natural calamity					
26	Import/export policy of Govt.					
27	Improper selection of borrowers					

G 2 Please specific other causes not included in the questionnaire held responsible for nonperforming credit in Bangladesh.

Part-H
Miscellaneous Questions

H 1 In your opinion, what problems borrowers are facing at the time of applying for a credit? (Please tick)

(1) Reluctance of credit officers [ ] (2) Non cooperation [ ]

(3) Maintaining various formalities [ ] (4) Seeking bribe by credit officers [ ]

H 2 Do you believe that credit officers seek unnecessary information from borrowers?

(1) Yes [ ] (2) No [ ]

H 3 Do you believe that credit officers help borrowers in preparing loan proposal?

(1) Yes [ ] (2) No [ ]

H 4 Do you feel that present formalities for getting a credit are lengthy and cumbersome?

(1) Yes [ ] (2) No [ ]

H 5 Please state how formalities for getting loan can be made easy.

H 6 In your opinion, on an average how much expense as percent of credit, borrowers have to incur for getting a credit? (Please Tick)

(1) None [ ] (2) Less than 5% [ ]

(3) More than 5% but less than 10% [ ] (4) More than 10% but less than 15% [ ]

(5) More than 10% [ ]

H 7 Do you believe that collateral security can ensure the smooth repayment of loan?

(1) Yes [ ] (2) No [ ]

H 8 Please suggest what aspects credit officers should look for to ensure smooth repayment of loan?

Thank you very much for your cooperation and contribution

Appendix III: Bibliography

BIBLIOGRAPHY

Ahamad, M.1997. The Political Economy of Loan Default. A Quest for a Socio Political Explanation. *Bank Parikrama* 22(2).

Ahamed, K.1981. The Role of Bangladesh Shilpa Bank in Financing Private Sector Enterprises. *The Dacca University Studies*, Part-C, 2(2):95-107.

Alam M. J., and M. Ahmad. 2001. DSS Model for Lending Decisions: Case Study of Commercial Banks in Bangladesh. *Journal of Business Administration*, 27(3&4) July & October, 43-59.

Altman, E.I. 1968. Financial Ratios, Discriminant Analysis and the Prediction of Corporate Bankruptcy. *Journal of Finance* (September): 589-609.

_________. 1984. The Success of Business Failure Prediction Models: An International Survey. *Journal of Banking and Finance* 8(2):171-198.

_________, Haldeman and P. Narayanan. 1977. Zeta Analysis: A New Model to Identify Bankruptcy Risk of Corporations. *Journal of Banking and Finance* (June): 1201-1217.

_________, and R.Haldeman. 1995. Corporate Credit-Scoring Models: Approaches and Tests for Successful Implementation. *The Journal of Commercial Bank Lending* Vol.77 (9): 10-22.

_________, R.B.Avery, R.A. Eisenbeis, and J.F.Sinkey, Jr.1981.Application of Classification Techniques in Business Banking and Finance. JAI press Inc.

_________, and A. Saunders.1997. Credit Risk Measurement: Developments over Last 20 Years. *Journal of Banking and Finance* (21).

Anderson, D. and F.Khambata.1981. Small Enterprise and Development Policy in Philippines: A Case Study. World Bank Staff Working Paper, No 468 July.

Anderson, D. R., D.J. Sweency and T.A. Williams. 1996. Statistics for Business and Economics. 6th edition: West Publishing Company.

Ang, J.S. 1980. Coalitions, the First Rule, and the Liquidation Decision. *Bell Journal of Economics* 11(1).

Aoki, M. and H. Patrick. 1994. The Japanese Main Bank System. Oxford University Press, Oxford, New York.

Ari Hyytinen. 2002. The Time Profile of Risk in Banking Crises: Evidence From Scandinavian Banking Sectors. *Applied Financial Economics* 12(9): September.

Armitage, S.E.1995. Bank Lending to Large Companies. A Test Case of Whether Banks Obtain Inside Information, Ph.D. Edinburgh.

Barande. A. 1991. Documents for Bank Advances. Bombay: Business Bank Publishing House, Bombay.

Avey, R. and A. Berger.1991. Loan Commitments and Bank Risk Espouser. *Journal of Banking and Finance* (September).

Backstrom, U. 1999. International Financial Turbulence in the 1990s. BIS Review127(November): 1-7.

__________. 2000. Significance of Risk Management. BIS Review 9(Feb): 1-4.

Baltensperger, E. 1978. Credit Rationing. *Journal of Money Credit and Banking*: 170-187.

Barnes, P.1987. The Analysis and Use of Financial Ratios: A Review Article. *Journal of Business Finance and Accounting* 14(4): 449-461.

Barsky, N.P. A. H. Cantanach.Jr. and S.C.R.Cantanach.2003. Analysts Tools for Detecting Financial Reporting Fraud. *Commercial Lending Review* Vol.14 (5): 31-36.

__________, __________, __________, and J.C.Thibodeau. 2003. "Enron": Did the Financial Reporting Model Really Fail. *Commercial Lending Review* 18(2): 5-9.

Beans, K.M. 1999. What Does a Commercial Customer Want from Its Lender? *The Journal of Lending and Credit Risk Management* Vol.82 (3): 18-21.

Beaulieu, P. 1994. Commercial Lenders' Use of Accounting Information in Interaction With Source Credibility. *Contemporary Accounting Research.*10 (spring):557-585.

Beaver, W.H.1968. Alternative Accounting Measures As a Predictors of failure. *The Accounting Review* (January):113-122.

Begley, J. and G. A. Felthman. 1999. An Empirical Examination of the Relation Between Debt Contracts and Management Incentives'. *Journal of Accounting and Economics* 27(April): 229-259.

Behn, B.K.and R.A.Riley Jr.1999. Using Non-financial Information to Predict financial Performance: The Case of the U.S. Airline Industry. *Journal of Accounting Auditing and Finance*: 29-56.

Behrens, H.(ed).1990 Commercial lending. Rolling Meadows, Illionois: Credit officers Publishing Company.

Benbow, R. F. 1985. Preventing Problem Loans Before they Happen: 25 Red flags. *The Journal of Commercial Bank Lending* Vol.67 (8): 18-23.

Benishay, H.1973. Discussion of a Prediction of Business Failure Using Accounting Data. Empirical Research in Accounting: Selected studies. *Journal of Accounting Research*: 180-182.

Berger, A.N., and G.F.Udell.1990 Collateral, Loan Quality, and Bank Risk. *Journal of Monetary Economics* Vol.25: 21-42.

Bierman, H., and W. Hauseman. 1980. The Credit Granting Decision. *Management Science* (April): 519-532.

Bodenhorn, H. 2003. Short-Term Loans and Long-Term Relationships: Relationship Lending in Early America. *Journal of Money, Credit, and Banking* Vol. (4): 485-505.

Boot, A.W.A. 2000. Relationship Banking: What Do We know? *Journal of Financial Intermediation* Vol.9: 7-25.

Borish, M.S., M. F. Long, and M. Noel.1995. Banking Reform in Transition Economics. *Finance and Development* Vol.32 (3) September: 23-26.

Brain, O.J. 1990. How Inventory Appraisal are Done. *The Journal of Commercial Bank Lending* (April).

Brealey, R., and S. Myers. 1984. Principles of Corporate Finance. New York, NY: MacGraw- Hill.

Broome, J.L. 2004. Using Companyions to Make Effective Loan Decisions. *The RMA Journal* February: 32-36.

Brown, D.W.1986. The Need for Careful Loan Documentation. *The Journal of Commercial Bank Lending* Vol.68 (5): 35-41.

Buyske, G. 1998. Credit Management Weakness in Emerging Economy Banks. *The Journal of Lending & Credit Risk Management* Vol. 80(10): 44-47.

Calhoun, P.W.1992. Appraisal of Loan Officers Credit Skills. *The Journal of Commercial Lending* Vol.74 (8): 36-41

Carmen M. R.2002. Default, Currency Crises. And Sovereign Credit Ratings. *The World Bank Economic Review 16*(2).

Carmine, D., DiGiorgio, and Giorgio. 1999. Should Banking Supervision and Monetary Policy Task be Given to Different Agencies. *International Finance* 2(3): November.

Carse, D.1999. Credit Risk During the Asian Crisis. BIS. Review 53: 8-14.

Carty. L.V., and D.Lieberman. 1996. Default Bank Loan Recoveries, *Global Credit Research* Special Report, Moody's Investor's Service.

Casey, C.J. 1983. Prior Probability Disclosure and Loan Officers' Judgment: Some Evidence of the Impact. *Journal of Accounting Research* 21(1): 300-307.

Chapin, A.F., and G. E. Hassett,Jr.1960. Credit and Collection Principles and Practice. Seventh edition. New York, NY: McGraw-Hill.

Chowdhury et al. 1998. Performance of Foreign Banks. *Dhaka University Journal of Business Studies* 19(2): Vol. December.

Citron, D.B. 1992. Financial Ratio Covenants in U.K. Bank Loan Contracts and Accounting Policy Choice. *Accounting and Business Research* 22(88):322-336.

Claeys, M.F.1986. Using Tax Returns as Credit Analysis Tools. *Journal of Commercial Bank Lending* Vol. 68(7): 48-52.

Clarke, R.A.2003. Performing Aggregate Analysis. *The RMA Journal* October: 59-61.

Clemens, J H.1973. Bank Lending. London: Europa Publications Ltd.

Cole, R.H., and R. H. Hancock. 1960. Consumer and Commercial Credit Management. Home wood, Illinois: Richard D. Irwin, INC.

Compton, E.1985. Credit Analysis Is Risk Analysis. *The Credit officers Magazine* (March-April).

Copeland, R. E., and N.T. Khoury. 1980. A Theory of Credit Extension and Default Risk and Systematic Risk. *The Engineering Economist* (fall): 35-52.

Cordella, T. and E. LevYeyati.1998. Public Disclosure and Bank Failures. IMF Staff Papers 45(1):110-131.

Cornelius J. C. and N. Bartczak.1984. Cash Flow- It's Not the Bottom Line. *Harvard Business Review* (July- August): 61-66.

Cressy, R.C. 1996. Debt Rescheduling Versus Bankruptcy: The Creditor's Decision Problem. *Journal of Business Finance and Accounting* 23(8).

Crouhy, M. G., Dan, and M.Roberts.2000. A Comparative Analysis of Current Credit Risk models." *Journal of Banking and Finance* 24.

Curtis, G.1989. Business Information System. Analysis, Design and Practice.

Deakin, E.B.1972. A Discriminant Analysis of Predictors of Business Failure. *Journal of Accounting Research* (spring):167-179.

Desario, D.V. 1999.New Approaches to the International Regulation of Credit Risk. BIS Review 134(December): 5-13.

Dev, S.1990. Assessing Creditworthiness: Importance of Evaluating Company Management. *The Journal of Commercial Bank Lending* (March).

Dietrich, J.R., and R. S. Kaplan.1982. Empirical Analysis of the Commercial Loan Classification Decision. *The Accounting Review* LVII (1): 18-38.

Dince, R.R. and C. Fortson.1972. The use of Discriminant Analysis to Predict the Capital Adequacy of Commercial Banks. *Journal of Bank Research* (spring): 54-62.

Eisenbeis, R.O.1977. Pitfal in the Application of Discriminant Analysis in Business Finance and Economics. *Journal of Finance (*June): 875-899.

Eisenriech, D.C. 1981. Credit Analysis: Trying it all Together-Part 1 & 11. *Journal of Commercial Lending.*

Ercel, G. 1999. Financial Risk and its Management. BIS Review 41(April): 1-5.

Fadil, M., and L. Hershoff. 1999. Developing and Implementing Commercial Loan Pricing Models. *The Journal of Lending and Credit Risk Management* Vol. 81(10): 48-53.

Falk. and J.A. Heintz.1975. Assessing Industry Risk by Ratio Analysis. *The Accounting Review* October: 758-790.

Ferguson, R.W. Jr. 1999. Looks at Financial Market Lessons for Bank and Supervisors. BIS Review 119(November): 6-10.

__________________.2000. Compares Asia and Latin American Experience During the Recent Financial Turmoil. (January):1-14.

Financial Risk Management. 1992. Credit Risk Management Series.4. London: BPP Financial Publishing House.

Firth, M.1980.A Note on the Impact of Audit Qualifications on Lending and Credit Decisions. *Journal of Banking and Finance* (4): 257-267.

Forta, A. F.L.D. Silanes, and A.Shleifer. 2002. Government Ownership of Banks. *Journal of Finance* Vol. LVII (1): 265-301.

Foster, B.J. 2004. A Most Important Risk. *The RMA Journal* December 2003- January 2004: 8-14.

Foster, B.P., T.J. Ward, and J.Woodroof.1999. An Analysis of the Usefulness of Debt Defaults and Going Concerns Opinions in Bankruptcy Risk Assessment. *Journal of Accounting Auditing and Finance*: 351-371.

Francies, J. and D. Philbrick.1993. Analyst Decisions as Products of Multi-task Environment. *Journal of Accounting Research* 31(autumn): 216-230.

Frank, E.L.1968. Why the Lender Should Look at Outside of and in Addition to Financial Statements. *Journal of Commercial Bank Lending* 50(8):38

Fraser, D.R., B. E. Gup, and J. W. Kolari. Commercial Banking (The Management of risk). New York: West publishing company.

Gahlon, J., and R. Vigeland. 1988. Early Warning Sign of Bankruptcy Using Cash Flow Analysis. *The Journal of Commercial Bank Lending* (December).

Gee, E. F. 1991. Eleven Rules for Loan Officers. *The Journal of Commercial Bank Lending* Vol.74 (3): 20-23

Gentry, J.A., P. Newbold, and D. T.Whitford.1985. Predicting Bankruptcy: If Cash Flow's Not the Bottom Line, What Is? *Financial Analysts Journal* (September-October): 47-56.

George, A.1991. Qualitative Analysis: Evaluating a Borrowers's Management and Business Risks. *The Journal of Commercial Bank Lending* Vol. 73(12): 6-16.

Gilliland, J.A. 1982. Basic Negotiation Techniques in Problem Loans. *The Journal of Commercial Bank Lending* Vol.64 (12): 47-53.

Goerner, P. 1995. How to Use a Customer-Focused Quality Program to Improve the Loan Approval Process. *The Journal of Commercial Bank Lending* Vol.77 (8): 20-38.

Golden, S., and H. Walker. 1993. The Ten Commandments of Commercial Credit: The C's of Good and Bad Loans. *The Journal of Commercial Bank Lending* (January).

Goldshmith, W.R.1969.Financial Structure and Development; New Heaven. Yale University Press Publication.

Grablowsky, B. 1975. An Experimental Model of Risk in Consumer Credit. *Journal of Behavioural Economics* 4(1): 107-144.

Greenspan, A. 2000. Evolving Challenge for Credit officers and Supervisors. BIS Review 43 (May): 1-4.

Gupta, A. K. S. 1995. Loan Policy and Management in Banks. *Prajanan* 23(1): 39-60.

Hamm, R.A.1995. The Art of Making Financial Statement Projections: A Six-Step Visual Model. *The Journal of Commercial Bank Lending* Vol.77 (8): 30-38.

Hannan, T.H. 1991. Bank Commercial Loan Markets and the Role of Market Structure: Evidence From Survey of Commercial Lending. *Journal of Banking and Finance* (15) 133-149.

Hasan S. A.H.M.2003. The Extent of Loan Default in Nationalized Commercial Banks and Private Commercial Banks in Bangladesh- A Statistical Analysis. *Dhaka Commerce College Journal* 1(1): 6-19.

Hatch, J.A. 2002. Doing Research in Education Settings. State University of New York Press, First edition, Albany, NY:1-299.

Hattori, M.1998. An Investigation into Bank Behavior, Credit and Business Cycles. D.Phil. Oxford.

Hayes, D. A. 1977. Bank Lending Policies. University of Michigan.

Hayine, R.M., and G.A. Ericson.1995. Reconciling Individual Net Worth of Borrowers and Guarantors. *The Journal of Commercial Lending* Vol.77 (11): 17-32.

Heinemeyer, G.R. 1980. The Importance of the Credit Investigation Function to Banks and their Customers. *The Journal of Commercial Bank Lending* Vol.67 (7): 24-32.

Helfert, E.A.1982. Techniques of Financial analysis.5th edition. Homewood. iii: Richard D. Irwin.

Hellel, B. M.1980.The Base Rate Fallacy in Probability Judgement. Acta Psychologica 211-233.

Hempel, G.H., A. B. Coleman and D. G. Simonson. Bank Management, Text and Cases. Third Edition. New York: John Wiley & Sons.

Hiller, W.E. and G.R.Peck. 2004. Interpreting Ambiguities in Loan Documentation. *Commercial Lending Review* Vol. 19(2): 21-25.

Hoar, T. 1988. An Examiner's Perspective on Loan Problem. *The Journal of Commercial Bank Lending* Vol.70 (9): 36-42.

Hodgman, D.R.1961. The Deposit Relationship and Commercial Bank Investment Behaviour. *Review of Economics and Statistics* 63(August): 257-268.

Holland, J.1994. Bank Lending Relationship and the Complex Nature of Bank Corporate Relations. *Journal of Business Finance and Accounting* 21(3): 367-393.

Horrigan, J.O.1965. Some Empirical Bases of Financial Ratio Analysis. *Accounting Review* (July): 558-568.

________. 1968. A Short History of Financial Ratio Analysis. *The Accounting Review* (April): 284-294.

Houston, R.W. and M.F. Peters. 2001. The Effects of a Potential Borrowers's Reporting Reputation and Financial Condition on Commercial Loan Officers' Estimates of Forecast Bias and Subsequent Loan Recommendations. *Accounting and Business Research* 31(3): 163-174.

Hussain A. H. A. Tamimi. 2002. Risk Management Practices: An Empirical Analysis of the UAE Commercial Banks. *Finance India* 16(3): September.

Islam, M., A.T.M.A.Shahid, A.J.Chaudhury, and M.Siddique.1999. Bank Loan Default Problem in Bangladesh: A Dialogue Between Borrowers and Lenders. *Bank Parikrama* 24(2): 79-108.

________.2005. Bank Loan Default in the Private Sector in Bangladesh: A Profile of Star Defaulter. Synopsis of a paper presented in a seminar organized by Chittagong University Club, Chittagong: 1-8.

James A. G., P. Newbold and D. T. Whitford. 1985. Predicting Bankruptcy: If Cash Flow's not the Bottom Line, What is? *Financial Analysts Journal* (September-October): 47-56.

James, A. M., and Rajvarma.1986. Using Financial Market Data to Make Trade Credit Decision. *Journal of Business Finance and Accounting* 13(4): 505-518.

Jasper, A.1988. Assessing Credit Risk in a Complex World. *Commercial Lending Review* (June).

Jonathan Golin. The Bank Credit Analysis Handbook: A Guide for Analysis, Credit officers and Investors.

Joytirmayee, K.2000.Credit Repayment by Small-Scale Industries. Prajanan, 28(1):33-41.

Kahleen, A. 1985. An Agriculture Loan Rating System. *Journal of Commercial Bank Lending* (February).

Kane, G.D., F. M. Richardson, and U.Velury.2003. The Role of Corporate Life Cycle in the Prediction of Corporate Financial Distress. *Commercial Lending Review* Vol. 18(6): 26-28.

Karim, A.K.M.W. 1991. Recovery Problem of Bank Loan: A Comparative Study on Selected Industrial Companies. The Bureau of Business Research, Faculty of Business Studies, University of Dhaka.

Kemp, R.S. Jr., and G.A. Overstreet, Jr.1990. A Study of the Information Needs of Commercial Loan Officers. *The Journal of Commercial Bank Lending* Vol. 72(6): 47-57.

Khalik, A. A.R. 1973. The Effect of Aggregating Accounting Reports on the Quality of the Lending Decision: An Empirical Investigation. *Journal of Accounting Research* (Supplement): 104-138.

_______. and K.M. EL. Sheshai.1980. Information Choice and Utilization in an Experiment on Default Prediction. *Journal of Accounting Research* Vol.18 (2): 325-342.

Khalily, M.A.B., S.A.Khan, and M.M.Islam.2001. Financial Liberalization, Banking Sector and Industrial Finance Stagnancy or Dynamism? *Dhaka University Journal of Business Studies* 22(1):1-26.

Khan, A. R.1987. Use and Misuse of Rural Loan of Commercial Banks. *Dhaka University Studies* part- C, 8(1): June.

King, R. G. and R. Levine. 1993. Finance, Entrepreneurship and Growth: Theory and Evidence. *Journal of Monetary Economics* 32 (3).

Kreps, C. H. Jr., and R. F.Wacht. 1973. Credit Administration. *The American Credit officers Association.*

Kristin, P. The Importance of Credit Risk Management in Modern Banking, M.Sc.1998. Distress: Some Extensions. *Journal of Accounting Research* (spring): 176-179.

Kunt, A.D. and E. Detragiache. 1998. The Determinants of Banking Crises in Developing and Developed Countries. IMF Staff Papers 45(1): 81-109.

________. and H. Huizinga.1997. Determinants of Commercial Bank Interest Margins and Profitability: Some International Evidence. The World Bank Economic Review 13(2): 379-408.

Lakshmi, G.1996. How to Measure Default Risk: An Empirical Study on India Operations in the International Loan and Bond Markets, PhD.

Larabee, A.R. and D.C. Ahlquist. 1998. Online Research and Commercial Lending. *The Journal of Lending and Credit Risk Management* Vol.80 (12): 45-49.

Lepley W.H. 2004. Credit officers, Betas and the Cs of Credit. *The RMA Journal* December 2003-January 2004: 62-65.

Levine, E., J. Alonso, and D. Strischek.1985. A Conceptual Framework for Credit Analysis. *The Journal of Commercial Bank Lending* Vol.68 (2): 44-50.

Levine, R. 1997. Financial Development and Economic Growth: Views and Agenda. *Journal of Economic Literature* 35(June): 688-726.

Libby, R.1979. The Impact of Uncertainty Reporting on the Loan Decision. *Journal of Accounting Research* 17 (Supplement): 35-57.

Lilly, J.E., and J. Maxwell. 2004. Will Syndicated Loans and Federal Securities Law Collide? *Commercial Lending Review* Vol.19 (3): 8-14.

Long, L.H. 2000. Post Crises Asia- The way Forward. BIS Review 76:1-9.

Lucas, D. J. 1995. Default Correlation and Credit Analysis. *Journal of Fixed Income* (March): 76-78.

Lucas,E.O.1973. Judging Loans to Small Businessmen. Banking, *Journal of the American Credit officers Association* (August): 66-76.

Lync, T. 2000. A Survey of Credit and Behavioral Scoring: Forecasting Financial Risk of Lending to Customers. *International Journal of Forecasting* 16(2).

Mahmood, M.M. 1991. An Appraisal of Bank Lending in Bangladesh. *Chittagong University Studies*, Commerce volume-7.

Mahmud, D.W. 2003. Financial Sector Reforms-The Engine of Growth. Paper Presented at the National Conference Organized by ICAB, Dhaka, (May, 27): 28-30.

May, J. 1999. Problem Loan Identification and Management. *The Journal of Lending and Credit Risk Management* Vol.81 (7): 40-44.

McAnally, M.L.1999. Banks, Risks, and FAS105 Disclouser. Journal of Accounting and Finance: 453-490.

McDonough, W.J.1998. Credit Risk Management and the Level Playing Field. BIS Review 102(December): 1-8.

______________. 1999. The Importance of Risk Management Techniques and the Enhancement of Market Discipline. BIS Review 8(January): 1-6.

______________. 2000. Sound Banking System: a New Growth Imperative. BIS Review 27(March):

______________. 2000. Future Challenges for Credit officers and Bank Supervisors. BIS Review 32 (April): 1-8.

Mckinnon, R.I.1973. Money and Capital in Economic Development. Washington D.C. The Brookings Institution Publication.

Mcnaughton, D. and C.T.Dietz.1997. Banking Institutions in Developing Markets. The World Bank, 1(4) August: 31-63.

Meis, G.J. 2004. The Ten Commandments of Commercial Loan Collections. *The RMA Journal* (February):26-30.

Meyer, L.H 2000. Why Risk Management is Important for Global Financial Institution. BIS Review 68(September): 7-12.

Moody's investor's service. 1991. Global Credit Analysis. New York, NY: IFR Publishing.

Moral,M.L.A.J.Chaudhury,and M.M.Siddique.2000. Enforcement Status of Laws Relating to Defaulted Bank Loans. *Bank Parikrama: A Journal of Banking and Finance* 25(2&3): 112-153.

Morana, C., and A. Beltratti. 20002. How UK Financial Institutions Really Price their Banking Products? *Journal of Banking and Finance* 26(10).

Morgan, J. B. 1996.Using Market-Based Information in Credit Analysis. *The Journal of Commercial Bank Lending* Vol.78 (8): 23-30.

Morsman, E.M.Jr. 1991. Commercial Loan Structuring. *The Journal of Commercial Bank Lending* Vol.74 (3): 24-42.

Moskow, M.H.1998. Regulatory Effects to Prevent Banking Crises: Lessons from Recent Global Bank Failure. Federal Reserve Bank of Chicago, *FDI Development Studies* : 13-26(p-16).

Mott, H.C.1977. Establishing Criteria and Concepts for a Written Credit Policy. *The Journal of Commercial Bank Lending* Vol. 59(8): 2-15.

Mound. P.E. The Art of Business Credit Investigation: A credit Manager Guide to Information the Best Defense Against Fraud.

Mueller, P. H. 1993. Risk Management and Credit Culture: A Necessary Interaction. *The Journal of Commercial Bank Lending* (May).

Munson, G.B. D.S.McChesney, and J.L.Doty.1984. Three Different Perspectives on Loan Review. *The Journal of Commercial Bank Lending* Vol.66 (6): 2-17.

Murgatroyd, P. 1993. Legal Management Aspects of Debt Recovery: Lessons to be Drawn and Where Do We Go From Here? Paper presented at the Symposium on Legal Issue in Debt Recovery, Credit and Security (Unpublished), Manila: 4.

Murshed, A.J.M.H., and W. Ahamed.2000. East Asian Financial Crisis: Lessons for the Developing Countries. *Dhaka University Journal of Business Studies* 21(2): 97-117.

Naroff, J.L.1991. Assessing Borrowers Performance in an Economic Slowdown. *The Journal of Commercial Bank Lending* Vol.73 (5): 6-12.

Nation 111, G. A. 2003. Proper Loan Structure Requires Co-ordination of Multiple Areas of Laws. *Commercial Lending Review* July: 23-27.

Newburgh, C.1991. Character Assessment in the Lending Process. *The Journal of Commercial Bank Lending* Vol.73 (8): 34-39.

Ng, D.S. 1978. An Information Economic Analysis of Financial Reporting and External Auditing. *The Accounting Review* 53: 910-920.

Nobles, C. 2003. New Technology for Credit Review. *Commercial Lending Review* Vol. 18(4): 28-33.

Nordgren, R.K.1986. Understanding Cash Flow: A Key Step in Financial Analysis. *Journal of Commercial Bank Lending* Vol. 68(9): 2-17.

Ohlson, J.A.1980. Financial Ratio and Probabilistic Prediction of Bankruptcy. *Journal of Accounting Research* (spring): 109-131.

Pace, E.E., and D.G. Simonson. 1977. Credit Investigation. *The Journal of Commercial Bank Lending* Vol. 59(9): 3-8.

________ and _______________. 1977. The Initial Loan Interview. *The Journal of Commercial Bank Lending* Vol. 59(8): 17-23.

Patrick, H.1997. Banking System Failures in Developing and Transitional Countries: Diagnoses and Prediction. Working paper No. 39, BIS.

Pettway, R.H. and J.F.Sinkey.1980. Establishing on Site Bank Examination Priority: An Early Warning System Using Accounting and Market Information. *Journal of Finance* (March): 137-150.

Pinches, G.E. and K.A.Mingo. and J.K. Carruthers. 1975. The Hierarchical Classification of Financial Ratios. *Journal of Business Research* (October): 295-310.

Podheiser J.F. 2000. Qualified Plan Loan in Bankruptcy. *Compensation and Benefits Review* 32(3): May/ June.

Proctor, R.E. 1984. A Comprehensive Approach to Loan Review. *The Journal of Commercial Bank Lending* Vol.66 (12): 21-36.

Purnell, K.1992. Credit Administration: The Key to Recovery in the Short Term and Success in the Long Term. *The Journal of Commercial Lending* Vol.74 (8): 52-57.

Radding, A.1992. Credit Scorings New Frontier. Bank Management (September).

Rajashekhar, H. S. 1993. Decision System in Credit Management. BMP Dissertation. NIBM, Pune, India.

Rama, A.S.1994. How Can Consessional Finance Help the Poor? *Yojana* 1-15.

Ramaiah, M. S. Ghosh.2003. Understanding the Determinants of Bank Spreads in India: An Empirical Analysis. *Prajnan* 31(1): 7-19.

Ramakrishnan, R, and A.V. Thakor.1984. Information Reliability and a Theory of Financial Intermediation. *Review of Economic Studies* Vol.51:415-432.

Rameshan, P.1997. A Multiple Discriminant Analysis of the Financial Health of Selected Public Sector Enterprises: An Exploratory Study. *Prajnan* 25(1): 43-61.

Rege, U.P.1984. Accounting ratio to locate takeover targets. *Journal of business Finance and Accounting* (Autumn): 391-411.

Rizzi, J. 1984. Strategic Analysis: The Neglected Element in the Term Credit Decision. *The Journal of Commercial Bank Lending* Vol. 66(11): 2-9.

Robertson, B. 1996. Selling Workout Loans: How the Process Works. *The Journal of Lending and Credit Risk Management* Vol.79 (1): 48-53.

Ruth, E.J.1990.Commercial lending. American Credit officers Association. Second edition. Washington.

Rwegasira, K.1992. Problems of Financial Analysis in Institutional lending Operations. England: Avebury Ashgate Publishing Ltd.

Saha, S. and M.S.K.Chowdhury.2000. Role of Commercial Banks in Development Financing in Bangladesh. *Bank Parikrama* 25(1): 103-141.

Saha, S., M.S.Rahman, and M.M.Alam.2001. An evaluation of LRA practices in banks in Bangladesh. *Bank Rarikrama* 26(2):88-99.

Santomero, A. and J.D.Vinso 1977. Estimating the probability of failure for commercial banks and the banking system. *Journal of Banking and Finance* (September): 185- 205.

Sardesai, V.1999. Essentials of documentation. *Journal of the Indian Institute of Credit officers.*

Sarkar, M.M.R.1996. Credit management of commercial banks: A comparative study of public and private sector banks. The Bureau of Business Research, Faculty of Business Studies, University of Dhaka: 1-74.

Satyanarayana, K.1998. Feasible NPA Levels of Banks for Capital Account Convertibility. *Prajnan* 26 (3):325-345.

Schauwecker, H.E. 1985. The Role of a Company's Board of Directors in Trouble Credits. *The Journal of Commercial Bank Lending* Vol.67 (12): 21-26.

Schepanski, A. 1983. Test of Theories of Information Processing Behavior in Credit Judgment. *The Accounting Review* LVIII (3): 581-599.

Scott, J. 1981. The Probability of Bankruptcy: A Comparison of Empirical Predictions and Theoretical Models. *Journal of Banking and Finance* (5):317-344.

Shanmugam B, C. Turton, and G. Hempel.1992. Bank Management. Australian edition. Brisbane: John Wiley & Sons.

Sharpe, S. 1990. Asymmetric Information, Bank Lending and Implicit Contracts: A Stylized Model of Customer Relationships. *Journal of Finance* Vol.45:1069-1087.

Sinkey, J.F.1975. A Multivariate Statistical Analysis of the Characteristics of Problem Banks. *Journal of Finance* (March): 21-36.

Sobhan, R. 2000. Restoring Justice to Banking in Bangladesh. Bank Parikrama, *A Journal of Banking and Finance* 25(2&3): 5-21.

___________. (ed.). Debt Default to the Development Finance Institution: The Crisis of State Sponsored Entrepreneurship in Bangladesh, University press ltd., Dhaka.

___________. 1990. Report of the Task Forces on Bangladesh Development Strategies for the 1990's: Policies for Development. Volume One, University press ltd., Dhaka: 1-374.

Sorter, G.H. and S.W.Becker.1964. Corporate Personality As Reflected in Accounting Decision: Some Preliminary Findings. *Journal of Accounting Research* 2(2): 183-196

Srinivasa. H.V. 1986. Credit officer's handbook of credit management. First edition. New Delhi: Criterion Publication.

Srinivassan, V., and Y. H. Kim. 1987. Credit granting: A Comparative Analysis of Classification Procedures. *Journal of Finance* 42(July):665-681.

Stals, D.C. 1998. Importance of credit extension for macroeconomic financial stability. BIS Review 91(November): 1-4.

Stanhouse, B. and L. Sherman.1979. A Note on Information in the Loan Evaluation Process. *The Journal of Finance* 34(5): 1263-1269.

Stewart, P.1997. Graphical and longitudinal models in credit analysis, Ph.d. Lancaster.

Still, D.B. 1984. A Philosophical Foundation for Credit Analysis. *The Journal of Commercial Bank Lending* Vol. 66(8): 2-6.

Strischek, D., and R. Cross. 1996. Reengineering the Credit Approval Process. *The Journal of Commercial Bank Lending* Vol.78 (5): 19-34.

__________. 1998. Commercial Lending and Lenders in the 21st Century. *The Journal of Lending & Credit Risk Management* Vol. 80(12): 16-22.

Sundararajan, V.1992. Central Banking Reform in Formerly Planned Economics. *Finance and Development* 29(1)March:11-13.

Taffler, R.J. 1984. Empirical Models for the Monitoring of UK Corporations. *Journal of Banking and Finance* 8(2): 199-227.

Thomas, L. 2000. A Survey of Credit and Behavioral Scoring: Forecasting Financial Risk of Lending to Customers'. *International Journal of Forecasting* 16(2): April/June.

Thornton, J. C. 1986.Successful Selection of Commercial Lenders. *The Journal of Commercial Bank Lending* Vol.68 (7): 43-47.

Udell.G.F.1999. Loan Quality, Commercial Loans Review and Loan Officer Contracting. *Journal of Banking and Finance*. Vol.

Voyazes, L, Stirling. 1996. Risk Assessment of Greek Commercial Bank Using Ratio Analysis. M.Sc.

Wallace, T. 2003. The Management of Problem Loans Under SBA 7(a) Guarantees: A Regulatory Update. *The RMA Journal* (October): 66-70.

Walter, A. 1989. What is Score? *ABA Banking Journal* (August).

Walters, H., and D. Richards.1988. Checks and Balances for Loan Approval and Booking Systems. *The Journal of Commercial Bank Lending* Vol.70 (9): 29-35

Weber, M.A.1998. Bank Behavior Based on Internal Credit Rating of Borrowers. *Journal of Banking and Finance* Vol. 22.

White, L.R.1990. Credit Analysis: Two More "Cs" of Credit. *The Journal of Commercial Bank Lending* Vol.73 (2): 11-15.

Wilcox, J.W.1971. A Simple Theory of Financial Ratios as Predictors of Failure. *Journal of Accounting Research* (Autumn): 389-395.

________. 1973. A Prediction of Business Failure Using Accounting Data. Empirical Research in Accounting: Selected Studies. *Journal of Accounting Research* (Supplement): 163-179.

William, T.F. and M. Roberts.2000. Credit Risk Rating System at Large US Banks. *Journal of Banking and Finance* (24).

Woelfel, C.J.1994. Encyclopedia of Banking and Finance. 10th edition, S. Chandra and Company Ltd.,Ram Nagar, New Delhi.

Wood, J.F. 1975. Commercial Bank Loan and Investment Behavior. NY: Wiley.

Wood, T.R. 2003. Case Study: Best Practices at Hibernia National Bank. *Commercial Lending Review* Vol. 18(4): 34-37.

Zamaroczy, M.D.1992. The Reforms of Senegal's Banking System. *Finance and Development* 29(1): 14-15.

Zavgren, C.V.1983. The Prediction of Corporate Failure: The State of the Art. *Journal of Accounting Literature*: 1-38.

Zimmer, I.1980.A Lens Study of the Prediction of Corporate Failure by Bank Loan Officers. *Journal of Accounting Research* Vol.18 (2): 629-636.