YANGON UNIVERSITY OF ECONOMICS

DEPARTMENT OF COMMERCE

EXECUTIVE MASTER OF BANKING AND FINANCE PROGRAMME

EFFECIVENESS OF LOANS PORTFOLIO MANAGEMENT PRACTICES IN MYANMAR MICROFINANCE BANK

KHIN THANDAR MYO MIN

(EMBF-5TH BATCH)

December, 2019

EFFECIVENESS OF LOANS PORTFOLIO MANAGEMENT

IN MYANMAR MICROFINANCE BANK

A thesis submitted as a partial fulfillment towards the requirements for the degree of Executive Master of Banking and Finance

Supervised by	**Submitted by**
Prof: Dr. DawSoe Thu	**Ma KhinThandarMyo Min**
Head of Department	**Roll No:17**
Department of Commerce	**EMBF 5th Batch**
Yangon University of Economics	

December,2019

ABSTRACT

This study is based on the loan portfolio management of Myanmar Microfinance Bank. The objectives of this study are to identify of loan portfolio management practices of Myanmar Microfinance Bank and to investigate the effectiveness of loan portfolio management practices of Myanmar Microfinance Bank. Descriptive research method is used in this study by both primary data and secondary data, gathered by questionnaire from middle management level from head office and branch and BOD members and monthly and annually reports of the Central Bank of Myanmar, annual general meeting reports and financial reports of MMB bank. Regarding of first objective, it found that loan portfolio management is very effective in bank performance. The key finding factors of the study about credit risk management in MMB are policies and procedures are clearly defined in loan portfolio management.

ACKNOWLEDGEMENTS

I am highly grateful to Professor Dr. Tin Win, Rector of the Yangon University of Economics and Prof. Dr. DawNilarMyintHtoo, Deputy Rector, Yangon University of Economics for providing for their concern and encouragement to the participants of the MBF programme.

I wish to express my sincere thanks to my Supervisor, Professor Dr.DawSoe Thu, Program Director of MBF Program and Head of Department of Commerce for her patience in reading the drafts and occasionally guiding me as well as necessary information regarding during the thesis period, without which the research paper would not have been a reality. to

I would like to gratitude and thanks to all my respected professors, lecturers those who contributed their time, valuable knowledge and experiences sharing, and broader thinking during the course of my study.

I would like to also thank to U Zaw Win Naing , Managing Director of Myanmar Microfinance Bank, Daw Yee YeeSoe Deputy General Manager and all of the management team in Myanmar Microfinance Bank that took time to respond to the questionnaires for this research study. Finally, I would like to deeply thanks to my family, my group leader Ma Hnin Moe Phyu and classmates for all their invaluable inputs, encouragements and supports.

TABLE OF CONTENTS **Page**

ABSTRACT i

ACKNOWLEDGEMENTS ii

TABLE OF CONTENTS iii

LISTS OF TABLES v

LISTS OF FIGURES vii

LISTS OF ABBREVIATIONS viii

CHAPTER I INTRODUCTION

1.1 Rationale of the Study 2

1.2 Objectives of the Study 3

1.3 Method and scope of the Study 3

1.4 Organization of the Study 4

CHAPTER II THEORETICAL BACKGROUND OF THE STUDY

2.1 Concept of Loan Portfolio Management 5

2.2 Theories Background of the Study 7

2.3Concept of Credit Risk Management 10

2.4 Bank Loan Portfolio Diversification 11

2.5 Loan Risk Analysis and Loan Risk Monitoring 12

2.6 Profitability 13

2.7 Previous Studies of Loan Portfolio Management 13

2.8 Conceptual framework and Assumptions of the study 15

CHAPTER III **LOAN PORTFOLIO MANAGEMENT PRACTICES IN MYANMAR MICROFINANCE BANK**

3.1Microfinance Sector in Myanmar 17

3.2 Background History of MMB 17

3.3Credit Policies of Myanmar Microfinance Bank 17

3.4 Credit Risk Management practices in Myanmar Microfinance Bank 18

3.5Organizational Structure of Myanmar Microfinance Bank19

3.6Loan Portfolio Management Practices in Myanmar Microfinance Bank 22

3.7Credit Risk Analysis and Credit Risk Monitoring in Myanmar Microfinance Bank 23

CHAPTER IV **ANALYSIS THE EFFECT OF LOAN PORTFOLIO MANAGEMENT IN MYANMAR MICROFINANCE BANK**

4.1 Research Design 26

4.2 Demographic profile of Respondents 27

4.3 Assessment of Reliability 31

4.4 Analysis on Loan Portfolio Management Practices in MMB Bank 33

4.5 Effect of Loan Portfolio Management Practices Profitability of Bank Performance 36

CHAPTER V **CONCLUSION**

5.1 Findings 40

5.2 Recommendations and Suggestions 41

5.3 Suggestions for Further Studies 42

PREFERNCES 43

APPENDIXES 45

List of Tables

Table No.	Particulars	Page
3.1	Comparison Table of Loan Amount and Securities' value of Largest exposures	20
3.2	Portfolio Management to classification in Economic Sectors of Loan Amount as at 30.9.2019	21
3.3	Loan Portfolio Management Practices of Myanmar Microfinance Bank	22
3.4	Asset Classification as at 30.9.2019	23
3.5	Classification of Loans/Advance and Specific Provisions	24
4.1	Gender of Respondents	27
4.2	Age Group of Respondents	28
4.3	Position of Respondents	29
4.4	Education Level of Respondents	30
4.5	Working Experienceof Respondents in the organization	31
4.6	The rule of thumb for Cronbach's Alpha Coefficient Value	32
4.7	Results of Cronbach's Alpha Value	32
4.8	Credit Risk Management	34
4.9	Bank Loan Portfolio Diversification	35
4.10	Loan Risk Analysis and Loan Risk Monitoring	36
4.11	Profitability	37
4.12	Effect of Loan Portfolio Management on Profitability of Bank Performance	38

List of Figures

Figure No.	Particulars	Page
2.1	Conceptual Framework of Amor,2009	13
2.2	Conceptual Framework of Onasis Bateng,2011	14
2.3	Conceptual Framework of the Study	15

ABBREVIATIONS

LMP -Loan Portfolio Management

MMB - Myanmar Microfinance Bank

NPL - Non- Performing Loans

PD - Profitability of Default

LGD - Loss Given Default

EAD - Exposure at Default

CHAPTER I

INTRODUCTION

In Myanmardemocratic and economic transaction, the country is moving from a centrally-directed economy to a market-oriented one. Both domestically and regionally high hopes are attached to this transaction.The Myanmar Banking sector has improved since rules and regulations aimed at strengthening the system were bored over the past two years. The Financial Institutions Law (FIL) was enacted in 2016 and new rules were released again in 2017. At first, the banking community protested against the regulations. But most of the banks complied with our directives and there has been significant growth and improvement in the banking sector over the past year. The directives released by the CBM is notification 7/2017 last November under which all local banks must convert facilities into term loans. By July 2020, the volume of overdrafts as a percentage of a bank's loan book should be reduced to 20 percent of total loan portfolio from 50pc in July 2019. This aim is to enable growth and development in the local banking sector, which, in turn, will equip it to support and lend to Myanmar's expanding economy. Before 2016, local banks lent mainly to a limited portfolio of borrowers. Before directives issued in 2017, the local banking sector was very weak in terms of the services banks were prepared to offer. The private banks provided loans to selected groups of companies, which recycled the funds among themselves. So the Central Bank of Myanmar restricted on related-party loans. And then, the directives released by CBM is notification 1/2019 and 2/2019 second week of January that local banks must collect limited lending rates to no more 13% on collateral and no more 16% on without collateral loans. The Central Bank of Myanmar released to lend over three years Housing Loans and not to over 5% of total loan portfolio.

Loan Portfolio Management (LPM) is very important in banks and is important to lend bank's Vision and Mission.Loan Portfolio Managementis a key function for banks and other financial institutions with large, multifaceted portfolios of loan, often including illiquid loans. Historically, its role has been to understand the institution's aggregate credit risk, improve returns on those risks and identifying and managing concentrations of risk.

The financial crisis of 2007 changed the way most functions at these institutions operate, and LPM is no exception. The historical role of loan portfolio

management remains. However, new regulatory requirements especially with respect to capital and liquidity, increasing cost and margin pressure, and changed market conditions have pushed LPM into a broader role with the need to align closely with other areas, such as finance, treasury, risk data and methodology, and business-origination functions.A objective of loan portfolio management is to control the strategic risk associated with a bank's lending activities. Inappropriate strategic or tactical decisions about underwriting standards, loan portfolio growth, newloan products can compromise a bank's future.

1.1 Rationale of the Study

Banking is an industry that handles cash, credit, and other financial transactions. Banks provide a safe place to store extra cash and loan.They offers Saving Deposit, Term Deposit.. Banks use these deposit to make loans. Banks are a safe place to deposit excess cash. Banks also pay savers interest rates of the deposit. They are only required to keep 20 percent of each deposit on hand. That regulation is called the reserve requirement. Banks lend the other 80 percent out. They make money by charging higher interest rates on their loans than they paid for deposits.

Banks released credit policy and procedures for various types of loans to purpose of their vision and mission by following of the rules and regulations of the Central Bank of Myanmar. Interest from loan is sources of income of the bank. Therefore, Loan Portfolio Management is very importance for banking industry.

Lending is the principal business activity for most commercial banks. Effective management of the loan portfolio and the credit function is fundamental to a bank's safety and soundness. Loan portfolio management (LPM) is the process by which risks that are inherent in the credit process are managed and controlled.

Due to poor loan portfolio management cause bank losses and failures. Loan portfolio management process is so important, it is a primary supervisory activity. Loan portfolio management Team concentrated prudently approving loans and carefully monitoring loan performance. Lending by sector such as agriculture/ livestock, manufacturing/ production, trade, transportation, construction, service, general (HP), housing loan has made it clear that portfolio management team should

do more. Good loan portfolio management relies on trailing indicators of credit quality such as delinquency, nonaccrual, and risk rating trends. Effective loan portfolio management views oversight of risk in loans.

In 2015, Myanmar Microfinance Bank started the bank operation by accepting deposit and lending loan. MMB bank lend loans to borrowers depends on vision and mission. They lent microfinance institutions at first of the whole Myanmar with collateral and without collateral but without analysis the financial performance of borrowers' business. MMB Bank lends to microfinance institution 40% of loan portfolio in 2016. At present MMB has loan portfolio management after getting commercial bank license, they lend commercial loans.MMB bank has been operating Myanmar poverty people for over five years to ensure that low-income people of Myanmar who can have not enough for capital to invest for their retail shops. And MMB corporate with UEHRD help assess to finance for Rakhine and Solar mini Gird company and World Banks Kayar Division for electric by Solar plate by providing finance for villagers

The study was beneficial to commercial banks as its focus is on loan portfolio as a credit risk management practice which is the main factor of profitability for many banks. The study will contribute to shareholders confidence in the management of loans portfolio which normally affect their investment return and overall profitability of the banks. The outcome of the study will enable the regulators of banking institutions devise better policies in regards to lending and supervision on credit creation.

1.2 Objectives of the study

The objectives of the study are:

(1) To identify of Loan Portfolio Management practice of Myanmar Microfinance Bank.

(2) To investigate the effectiveness of Loan Portfolio Management Practices of Myanmar Microfinance Bank.

1.3 Method and Scope of the Study

This study focused on the conducting of loan portfolio management of Myanmar Microfinance Bank which located in Yangon, Mawlamying and Tontay. This study focused on Yangon Branches and Head Office. In studying on loan portfolio management, descriptive method is used. The research data are used by both primary data and secondary data. For collecting primary data, structure questionnaire distributed to 60 respondents who top and middle management of MMB bank by using sampling random method. Data collection period was from 1st July 2019 to 31st October 2019. For secondary data was used in budgeted 30th September 2019. Obtaining data descriptive statistics techniques by analyzing SPSS.Some of the external data take from the Central Bank of Myanmar, internet web sites and Library of Economics journalsand online libraries.

1.4 Organization of the Study

This thesis is structured into five chapters. Chapter one give an introduction to the study which includes brief explanation of rationale of the study, objectives of the study, method of scope of the study and organization of the study. Chapter two is about the theoretical background of Loan Portfolio Management. Chapter three includes the profile of MMB and Loan Portfolio Management practices in MMB and Chapter four control of loan portfolio management in MMB. Chapter five contains conclusion, finding and suggestion on loan portfolio management of MMB.

CHAPTER II

THEORIETICAL BACKGROUND OF THE STUDY

This chapter focuses on the review of relevant literature on loan portfolio management and other main aspects of the topic under study. Areas such as description creditrisk management, bank’s loan portfolio diversification, loan risk analysis and loan risk monitoring possible factors that lead to poor loan portfolio are covered. The chapter thus presents the conceptual and theoretical basis for the study.

2.1 Concepts of Loan Portfolio Management

According to (Greek, 2014), loan portfolio management is a processof investments based upon loan relationship and managing the risks involved with these investments. Therefore, loan portfolio management encompasses assessing the risk involved with each loan and then analyzing the total amount of risks for loans. The objective of loan portfolio management is to reduce the amount of loan default. Banks reduce the loan portfolio default risk by considering the credit repayment history of both individuals and groups applying for loans.FCA (1998) asserted that the elements of the effectiveness of loan portfolio management are strategic planning, lending policies and procedures, underwriting standards, risk identification, an internal credit review program, internal control system and maximizing the lending opportunities which clients.

According to (Comptroller ‘s Handbook, 1998)loan portfolio management is the process by which risks that are inherent in the credit process are managed and controlled. Loan portfolio management process is very important, it is a primary supervisory activity. Assessing loan portfolio management involves evaluating the steps bank management takes identify and control risk throughout the credit process. Before the problems become on loan, this assessment focuses on risk management and identify issues. In loan portfolio management process, analysis of past credit problems, trailing indicators of credit quality such as delinquency, nonaccrual, and risk rating trends.

(Society, 1992)stated that loaning is the important activity for most commercial banks. The loan portfolio is regularly the largest asset and the prevail sources of income. Thusly, it is perhaps the best source of risk to a bank's security

and soundness. If poor loan portfolio risk management, loans portfolio issues have been the significant cause of bank losses and default. Effective management of the loan portfolio and the credit function is fundamental to an organization's safety and soundness. Loan portfolio management is the procedure by which risks that are natural in the credit procedure are managed and controlled. Since review of the loan portfolio management process is so significant, it is an essential supervisory activity.Assessing of loan portfolio management includes the steps bank management goes out to identify and control risk all through the credit procedure. The appraisal focus on what management does to recognize issues before they become issues. The guideline arranged to help the two analysts and bankers, discuss the components of a successful credit portfolio the management procedure. It underlines that the identification and management of risk among groups of credits might be in any event as significant as the risk inherent in individual loan. For good loan portfolio management system have focused the greater part of their effort on prudently approving loans and cautiously observing loan performance in spite of the fact that these activities keep on mainstays of loans portfolio management, analysis of past credit issues

(Papadopoulos, 1989)stated that credit quality such as delinquency, nonaccrual, and risk rating trends are traditional practices rely too much on trailing indicators . Banks have found that these indicators didn’t provide sufficient lead time for corrective action when there is a systemic increase in risk. Effective loan portfolio management begins with oversight of the risk in individual loans. Prudent risk selection is vital to maintaining favorable loan quality. Therefore, controlling the quality of individual loan approvals and managing the performance of loans continuing is essential. Obtaining early indications of increasing risk by taking a more comprehensive view of the loan portfolio to manage portfolios, bankers must understand not only the risk posed by each credit but also how the risks of individual loans and portfolios are interrelated.

2.2 Theories Background of the Study

Several theories have been suggested to explain loan portfolio management in commercial banks. This study is anchored on three theories namely portfolio theory, institutional memory theory(Udell, 2004)and financial accelerator theory (Gertler, 1989)

2.2.1 Portfolio Theory

Portfolio theory manages the determination of portfolios that boost expected returns predictable with the individual satisfactory levels of hazard. The theory gives a structure to determining and measuring speculation hazard and to create connections amongst risk and expected returns. Its principle essential supposition is that financial investors frequently need to maximize returns from their ventures for a given level of risk. The full range of ventures must be considered in light of the fact that the profits from every one of these speculations cooperate henceforth the connection between the profits for a resource in the portfolio is imperative (Brown, 2011)

In investment, portfolio theory administration is a basic theory. It tries to search for the most effective mixes of advantages for boost portfolio expected returns for given level of risk. Then again limit risk for a given level of expected return. From this theory it is apparent that the level of hazard in a portfolio relies upon danger of every benefit, extent of assets distributed on every advantage and the interrelationship between the benefits making up the portfolio. The significant suspicions in portfolio theory in overseeing hazard are that the investors are objective and the market is proficient and culminate (Chijoriga, 2007), (Mutua, 2016). This theory is relevant in the sense that it brings out how loan portfolio can be managed to bring about profitability in the Microfinance Institutions and reduce loan defaults.

2.2.2 Institutional Memory Theory

(Udell, 2004)articulated the institutional memory theory linking loan growth to credit standards. The theory explains how a bank loan grows due to easing of credit standards as time lapses since their last credit bust. The capacity of loan departments to evaluate risk and identify potential future problems deteriorates as time passes since their last learning experience with problem loans. Early in a bank's lending cycle the lessons of the banks last bust are still fresh in the memory of loan officers who witnessed the ex-post realization of their prior loan decisions. As the bank

rebounds from its most recent experience with problem loans, the lessons are fresh in the minds of those loans officers who survived the experience.

(Fiocca, 1982)noted that due to passage of time since the last loan bust the loan officer skills tend to deteriorate. The officer tends to originate loans without proper screening, analysis and structuring and fails to monitor loans after they are granted. The officer also fails to design and implement work out strategies when these loans become stressed. The result is substantial growth in a banks' loan portfolio without due consideration of inherent credit risk. In the end a bank's loan boom turns to a bust. This prompts loan officers turn their attention to managing their distressed credits. The process of addressing loan problems helps restore institutional memory as officers re-learn how to make good loans, how to monitor them and how to avoid making bad loans.

The factor causing deterioration in credit standards could be attributed to a number of factors. First, decrease in fraction of experienced loan officers. New loan officers are hired and trained to replace experienced officers who leave the bank or are promoted to senior positions elsewhere in the bank. The new officers lack the experience of loan portfolio bust. Also new loan officers may also be hired to service increased loan demand as time passes since the banks last bust, further reducing the average experience of the staff. Another factor driving the deterioration in loan officer ability is the atrophy of lending skills by some individual loan officers who have had the experience of a loan bust, but have begun to forget the lessons of the past. This may affect some experienced officers more than others may. Further, a banks' loan review function is likely to functions less effectively since the banks last bust because there are fewer observed problem loans to use in evaluating loan officers. This worsens the agency problem between loan officers and bank management making loan review process less effective (Udell, 2004).

2.2.3 Financial Accelerator Theory

(Udell, 2004)suggested a financial accelerator theory to explain how relatively small economic shocks can have large and persistent effects on aggregate economic activity due to financial market imperfections. They defined financial accelerator refers to the mechanism of economic shocks amplification and propagation. The theory considers the interplay between economic agents' net worth and the external finance premium that arises due to asymmetric information between lenders and

borrowers. The keystone of the theory is the relationship between the external finance premium and agents' net worth. A change in aggregate economic activity causes a change in economic agents' net worth because of a positive correlation between them. The net worth of economic agents is inversely related to the terms they are able to raise external finance and the external finance premium due imperfect information. The procyclicalbehaviour of economic agents' net worth over business cycles implies countercyclical behaviour of the external finance premium. The inverse relation between output change and external financing make borrowing easier during a phase of economic expansion than during recession.

This tends to exaggerates swings in investment, spending and production over business cycles. (Bernanke, 2009)asserted that while financial accelerator effect is variously investigated in the relation to monetary policy transmission, the same mechanism applies to all kinds of different loan market frictions that may help to propagate disturbances. (Boissay, 2011)complements the financial accelerator theory with the loan-supply transmission channel. Lenders use the information obtained from borrowers' balance sheets to decide whether to finance the borrower at the market interest rate or not. As companies balance sheets are better during expansions, virtuous cycle emerges in expansions and vicious cycle in recessions. During economic expansion companies' financials improve, asset prices increase, customers are optimistic resulting in an increase in demand for credit. This leads to an increase bank lending which is accompanied with relaxation of credit standards and accumulation of credit risk.

When economic downturn begins companies' financial situation deteriorates, customers become pessimistic, asset prices fall causing decrease in value of collaterals. This leads to the increase in banks' nonperforming assets, increase in loan losses, decrease in banks' profitability and capital adequacy. During a recession, it may be cheaper to restrict lending than to increase bank equity it could be accompanied with reduction in bank lending which affects bank-dependent borrowers leading to a decrease in investments and decrease in demand (Boissay, 2011)

This theory suggested that banks' loan portfolio is likely to grow substantially resulting in improved financial performance during periods of economic expansion.

However, during recession banks will find it more difficult to lend resulting in a contraction in the loan portfolio. Also loan growth over an economic expansionary period may have adverse effect on banks financial performance in a recession period as the borrowers find it difficult to service the their loans.

2.3Concepts of Credit Risk Management

(Helen, 2008)defined that risk management is the process for conserving the earning power and assets of the firm by minimizing the financial effect of accidental losses such occurrences as plant fire, liabilities, suits, etc. Risk management in banking is theoretically defined as the logical development and execution of a plan to deal with potential losses.. The focus of the risk management practice in banking industry is to manage an institution’s exposure to losses or risky business. The objectives of risk management is the effective planning of resources needed to recover financial balance and operating effectiveness offer a fortuitous happening by lucky chance, loss, thus obtaining a short-term cost of risk stability and long term risk mitigation.(Aku, 2013)defined that risk management is planning,directing and organizing measures to reduce mitigate and control the impact on an institutions of risks arising from its operations and as the systematic application of management policies, procedures and practices to the tasks of analyzing, assessing, treating and monitoring risk.

(Hennie, 2010)defined that the credit risk management is the risk that a debtor or financial instrument issuer will not be able to pay interest or repay the principal according to the terms specified in a credit agreement-is inherent part of banking. Credit risk means that payment may be delayed or no paid at all, which can in turn cause cash flow issues and affect a bank’s liquidity. Despite innovation in the financial services sector, credit risk is still the major single cause of bank failures. The reason is that more than 80 percent of a bank’s balance sheet generally relates to this aspect management. Credit risk is the most common cause of bank failures, causing virtually all regulatory environments to prescribe minimum standards for credit risk management. The funtamental of sound credit risk management is the identification of the existing and potential risks inherent in lending activities.(Coyle, 2000)definedthat credit risk management is the identification, measurement, monitoring and control of risk arising from the possibility of default in loan repayments.

2.4 Bank's Loan Portfolio Diversification

(Markowitz, 2003)designed that risk diversification is way to measure the risk of securities statistically and thereby construct desired portfolios based on one's overall risk-reward preferences. The statistical approach to plot the risk reward relation is preceded by assigning expected values, standard deviations and correlations to security's single-period returns. Later with these statistical measures one can calculate the volatility and the expected return of the portfolio, which are used as measures for risk and reward respectively. An investor is able to find a few portfolios that will give the optimal risk-reward combination the securities making up portfolios with quadratic programming. These portfolio make up the efficient frontier. The assumptions behind this quantification is that all market participants have the same expectation, investors are able to invest in a totally riskless assets yielding the risk free rate of interest and the cost of transactions, information and for management is zero on the market. Based on assumptions one should be able to construct an optimal portfolio for all investor preferences.

Markowitz divided into two parts of portfolio (1) find the portfolio with the maximum reward least amount for risk taken, lowest possible standard deviation and (2) decide on how to allocate the funds between the riskless assets and the risky assets. The total volatility of a portfolio decrease as the number of securities that comprise the portfolio, increase. If the volatility is decrease, the correlation between the securities must be as low as possible.The total volatility of a portfolio decreases the lower correlation and the fewer securities. If the negative correlation, a loss in one security will result in gain in another. The total value of portfolio will not change by following the diversification. Unsystematic risk of the bank is that the risk can be reduced by assembling a portfolio with significant so that a single affects only limited number of the assets. Systematic risk is the risk of collapse of an entire financial system or entire market as opposed to risk associated with any one individual entity, group or component of a system,that can be contained therein without harming the entire system.

2.5 Loan Risk Analysis and LoanRisk Monitoring

According to (Saunder, 1996),banks need to adequate information about potential customers to be able to calibrate the credit exposure. The information gathered will guide the bank in assessing the probability of borrower default and price the loan accordingly. Much of this information is gathered during loan documentation. The bank should however go beyond information provided by borrower and seek additional information from third parties like credit rating agencies and credit reference bureaus.

According to(Rouse, 1989), applying CAMPARI technique during the initial assessment of the borrower will help in determining whether q loan is good or bad, recoverable or not recoverable. CAMPARI is a technique by which the viability of a proposal is assessed and evaluated. It is an acronym that stands for character is says a lot about the probability of a loan arrangement going sour, ability is borrower's ability in managing financial affairs, margin is the should obtain a reasonable return in view of risk taken, purpose is that should be acceptable to the bank, amount is the potential customer should justify the amount requested, repayment is that lender should ensure the source of repayment is clear, insurance is that security is necessary increase the repayment proposals fail to materialize.

According to (EBA/CP, 2019/4), Consultation, the monitoring of credit exposures and borrowers institutions should monitor all outstanding amounts and limits under the credit facilities and whether the borrower is meeting repayment obligations as laid down in the credit agreement. Institutions should also monitor whether the borrower and the collateral are in line with the credit risk policies and conditions set at the point of credit granting example the value of collateral and other credit enhancement techniques are maintained whether any applicable covenants are maintained and if there has been a negative development in these factors or in other factors that affect the risk profile of the borrower and credit facilities. Institutions should continuously monitor and assess the quality of credit exposures and financial situation of borrowers to ensure that subsequent changes in credit risk, in respect of the initial recognition of the lending exposures, can be identified and quantified. Institutions should monitor all outstanding amounts under their credit facilities and perform regular reviews on borrowers' payment performance. Institutions should also monitor whether the borrower is in line with the conditions set at the point of credit

granting, such as adherence to credit metrics covenants. The ongoing monitoring should be based on the internal information regarding the credit facilities, and borrowers payment practices, as well as using the external sources where relevant.

2.6 Profitability

Bank's profitability is more earn income than what they pay in costs. The significant segment of a bank's profit originates from the expenses that it charges for its administrations and the premium that it earn on its assets. Its significant cost is the intrigue paid on its liabilities. The major assets of a bank are its loans to individuals, business, and different associations and securities that it holds, while its significant liabilities are its deposits and the cash that it obtains, either from different banks or by selling commercial paper in the money market.

2.7Previous Studies of Loan Portfolio Management

The loaning capacity is considered by the financial business as the most significant capacity for the usage of assets. Banks acquire their most elevated gross benefits from credits the organization of advance portfolios genuinely influences the gainfulness of banks. Among the corrections was another necessity for banks that model explicit hazard to quantify and hold capital against default chance that is gradual to any default chance caught in the bank's an incentive in value-at risk model. The steady default chance charge was joined into the exchanging book capital system because of the expanding measure of presentation in banks' exchanging books to credit-chance related and regularly illiquid items whose hazard isn't reflected in value-at-risk.

(Greenspan, 2011)has indicated that Basel's goal is to induce bankers to improve their risk management capability, including how the institutions price products, reserve for loss, and control their operations. With respect to bank performance, banks use various measures to assess bank efficiency and related functions in the bank lending process. Traditionally, banks determined operating efficiency by using measures of bank profitability. Effectiveness in lending by commercial banks and explain the potential effects on bank performance in subsequent periods. Soundness of banking sector is critical for the stability of an

economy. While effect in bank lending is desirable measures of bank performance such as maximizing profitability, reducing non performing loan and risk mitigation, the quality of such loans has a major effect on bank performance in subsequent years. Loan portfolio management may arise from by increase in funding by commercial banks.

Identifying the impact of credit portfolio the board as bringing about more profit, decreasing the non performing advance, and risk mitigation in ensuing years. It would be normal that effectiveness of credit portfolio the executives in banks would bring about increment premium pay and improve profitability.

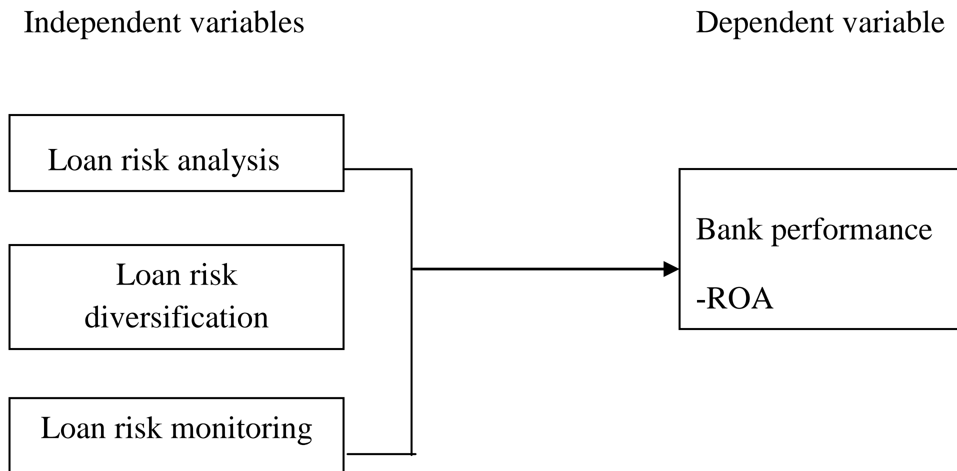
(Boateng, 2011)stated that loan portfolio management will correct action when policies, practices, procedures, objectives or internal control are deficient or when violations of laws, rulings or regulations occurs.There are two main risks associated with the banks portfolio management which are systematic risk which is unavoidable so there is no reason to try to manage towards it and unsystematic risks which can be minimized by the bank when its loan portfolio is diversified. The several factors that caused loan default and bad loans. Ineffective monitoring of loans and poor credit appraisal causes the loan problems. The effective management of the loan portfolio's credit risk requires that management understand and control the bank's risk profile and its credit culture. The policies, processes, and practices are implemented to control the risks of individual loans and portfolio segments.

The effectiveness of credit portfolio the executives that it must start with oversight of the risk in individual loans and prudent risk determination is crucial to keeping up great loan quality. The banker must comprehend the risk acted by each credit like well as how the risks of individual loans and portfolios are interrelated. These practices provide management the executives with a more complete image of the bank's credit risk profile and for more apparatuses to investigate and control the risk.

(M.Mutie, 2001)statedthat evaluation the credit scoring practices asses the relationship between these credit scoring practices and non-performing loans. Analyzing the level of non-performing loans measured by assets quality ratio and comparing this with the credit scoring practices using correlation analysis

achievement.The researcher indicates a negative relationship between credit scoring practices and non-performing loans with a correction of calculations.

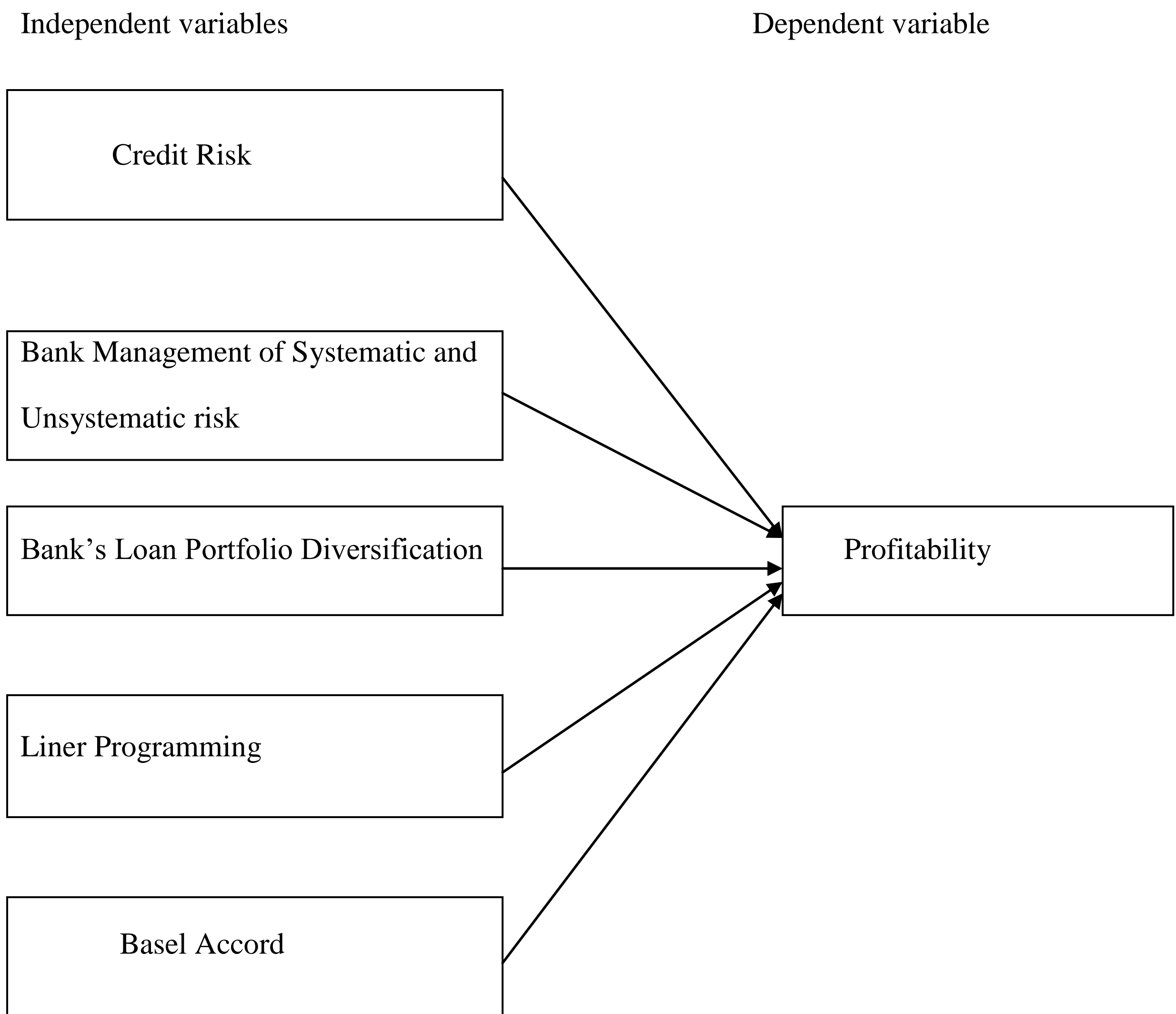
Figure (2.1) Conceptual model of effects of Loan Portfolio Management on Financial Performance of Commercial Banks



Source: Amor, (2009)

Figure (2.1) showed the conceptual framework identifying the various variables and their effects on the financial performance of commercial banks. The loan portfolio management was considered as independent variable whereas dependent variable which is loan portfolio management can influence the dependent variable which is performance of commercial in Rwanda, where loan risk analysis, loan risk monitoring, loan risk diversification, system and procedure for identification and acceptance risk play important role for improve the performance of commercial bank items of revenue gain per year, Expense, net income and profitability. Loan management like credit quality, sufficiency of credit and collateral documentation and compliance with internal policies and procedures and applicable laws and regulations are considered factors. These factors are useful to a common understanding of what is required and what should be done in order to avoid errors and other mismanagement which may occur with loan analysis and approval. The financial performance depends on an effective loan portfolio management to have a good performance with a good loan management.

Figure 2.2Conceptual Model of Optimal Loan Portfolio Management



Source: OnasisBoateng,(2011)

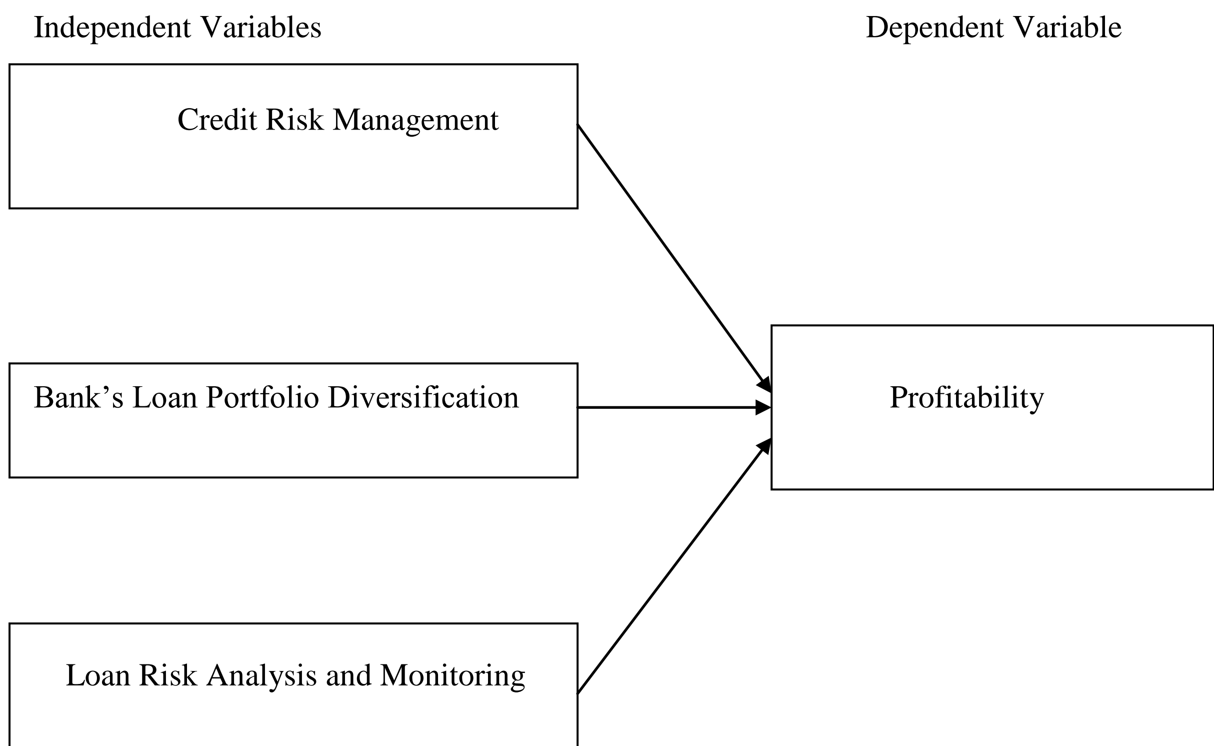
Figure 2.2 shows the conceptualization of the dependent and independent variables of the related study. The independent variables of the study include credit risk, bank management of systematic and unsystematic risk, bank loan portfolio diversification, liner programming and Basel accord. The dependent variables is profitability of the bank. By applying loan portfolio management system, can reduce default and significantly improve average unpaid principal balance increase in net present value from modifications. To maximize profit , banks need to formulate prudent and effective loan policies and it is going to help banks to efficiently distribute the funds they have available for loan. In this conceptual framework connection with Linear Programming and the groundwork of the current Basel Accord was reviewed.

Segment of the portfolio comprised of a large portion of the total loan portfolio as well as diversification a portfolio and the minimization of the unsystematic risks of the portfolio. It considered how portfolio management diversification can be carried out with a variety of strategies.

2.8 Conceptual framework of the Study

The conceptual framework of the study is based on the review of the areas like description of credit risk management, bank's loan portfolio diversification, loan risk analysis and monitoring and factors that leads to poor loan portfolio are covered and profitability of the commercial banks in Myanmar.

Figure 2.3 Conceptual framework of the study



Source :Adopted from Amor,(2009) and OnasisBateng,(2011)

Figure 2.3 shows the conceptualization of the dependent and independent variables of the related study. The independent variables of the study include credit risk, bank loan portfolio diversification and loan risk and monitoring. The dependent variables is bank performance which was measured by maximizing profitability. By combination

above two previous studies, the researcher get the conceptual framework suitable for Myanmar Banking sectors.

CHAPTER III

LOAN PORTFOLIO MANAGEMENT IN MYANMAR MICROFINANCE BANK

This chapter presented microfinance sector in Myanmar, background history of Myanmar Microfinance Bank, credit polices of MMB bank, credit risk management practices in MMB bank, loan portfolio management practices in MMB bnak and loan risk analysis and monitoring in MMB bank. The researcher wanted to assess how the operations of MMB bank have performed over the period of 30th September 2019 based on the existing records in the Bank's annual reports. The loan portfolio management of MMB bank is demonstrated by their profitability.

3.1 Microfinance Sector in Myanmar

In Myanmar, demand for microfinance exceeds supply four times holding back development as the country emerges from decade of isolation and highlighting the need to build up sustainable and credible microfinance institutions in the country. Myanmar banking sector has found it commercially challenging to external financial access to the poor. There are 20 people out of 100 have access to formal financial services with most people relying on family savings or costly alternatives such as informal money lender. There are over 200 Microfinance institutions and one bank in Myanmar.

3.2 Background History of Myanmar Microfinance Bank

The Myanmar Microfinance Bank Limited was established on 2nd July 2013 with the permission of the Central Bank of Myanmar Under law of Financial Institution of Myanmar and law of the law of the Central Bank of Myanmar.

MMB bankgot the license at 2nd July 2013 and was granted by the Central Bank of Myanmar, the Ministry of Finance and Revenue to operate as Development Bank and Investment Bank and also commercial Bank. At first, Myanmar Microfinance Bank get to operate bank and get permit to lend to Microfinance Institution in Myanmar with Development Bank license. MMB bank couldn't lend the commercial loans by connecting with post and email. After two year operation, MMB

bankget the permit for lending to commercial business Investment Bank license. Although MMB bank had operated 5-year, bank could lend commercial loan for 3 years.

3.3Credit Policies of Myanmar Microfinance Bank

The objective of Credit Policies of Myanmar Microfinance Bank isto get ensuring profitability and sustainability of bank's operations. They are single lending limit, lending to microfinance institution without collateral, Types of Collateral, Loans to deposit ratios, loan terms,provision for loan (loss).

Single Lending Limit-not lending more than 20% of their capital funds plus reserve to single individual, an enterprise, or an economic group and none of their 10 largest debtors, including economic groups, shall account for more than 30% of their loan portfolio.

Myanmar Microfinance Bank lent to microfinance institution in Myanmar without collateral no more over 10% of loan portfolio.Types of Collateralare accepted lease hold land, free hold land, machinery, Government Contract.Loan to Deposit Ratio is loan outstanding should not exceed more than 80% of total deposit.Loan Terms are Overdraft loan, Demand Loan and Demand Loan (Others) are short term loans (repayment not more than one year), Term loans are long term loans according to the Central Bank of Myanmar Instructions. When short term loans are completed one year, the borrowers have not to repay their loan, they can extend the term next year by authority of Credit CommitteeProvision for loan (loss) is the bank performs to absolutely eliminate the credit risk by removal the provision reserves from annual income to obtain the adequate protection. The bank remains the 2% of loan outstanding amount existed at the closing budget from annual net profit as provision approved by board of directors as provision for bad debt and doubtful debt.

3.4 CreditRisk Management practicesof Myanmar Microfinance Bank

MMB bank acceptdeposit and lend loans, that is mostly activities of bank. Therefore credit risk is the inherent risk of its bank. So risks are managed by Credit &Assets Risk management Department of Myanmar Microfinance Bank.Bank

monitor to detect any serious deficiencies that might develop so that they can correct the deficiencies before the loan default.

3.4.1 Limit or reduce to the credit risk-

To reduce the credit risk, credit risk management department make the loan by exactly following the policy adopted by BOD, by exactly following by the supervision of the Central Bank of Myanmar. Large exposure.Myanmar Microfinance Bank adopted the policy that the bank shall not lend more than 20 percent of bank core capital to a single individual, an enterprise or an business group. According to this policy, the most amount of 10 borrowers in Myanmar Microfinance Bank and their loan outstanding amount are described as Table (3.1).

It is the less possibility of loss because the ratio of average loan amount of 10 largest exposures and total loan portfolio are 64.07%. And then the maximum loan amount that can be made the loan to single individual is below 20% of its capital. Its amount to individual loan amount ratio 12.5%, lend to “A”and “B” are the most in largest borrowers.

Related Party Lending- According to financial institution law (2016), related party in relation to a financial institution means- (1) a person who has substantial interest in the financial institution or the financial institution has significant interest in the person; (2) a director or officer of the financial institution or of a body corporate that controls the financial institution;(3) a relative of a natural person covered in paragraphs (1) and (2) (4) an entity that is controlled by a person described in paragraphs (1), (2) and (3); (5) a person or class of persons who has been designated by the Central Bank as a related party because of its past or present interest in or relationship with the financial institution. Myanmar Microfinance Bank has not allowed to lend to related parties in their lending policy.

Over exposure to economic sector in loan portfolio managementThe bank separate into nine economic sectors and loan portfolio manage not to be over- exposure to only one sector.

Table (3.1)Loan Amount and Securities' value of large exposures

Sr No.	Borrowers' Name	Loan Outstanding Ks-Billion	Capital Ks-Billion	Percentage	Total Loan Portfolio Outstanding	Percentage
1	A	2.50	20	12.5	23.99	10.42
2	B	2.50		12.5		10.42
3	C	2.00		10		8.34
4	D	2.00		10		8.34
5	E	1.24		6.2		5.17
6	F	1.20		6.00		5.00
7	G	1.13		5.65		4.71
8	H	1.00		5.00		4.17
9	I	1.00		5.00		4.17
10	J	.80		4.00		3.33
	Total	15.37				64.07

Source: Myanmar Microfinance Bank (Directives of CBM is not more than 20% of capital)

Table(3.2)Portfolio Management to classification in Economic Sectors of Loan Amount as at 30.9.2019

Sr No.	Economics Sectors	Borrowers	Loan Amount Ks-Million	Percentage
1	Trading(Domestic)	18	4,894,609.75	20.40
2	Services	31	12,104,925.92	50.45
3	Production	11	3,707,576.20	15.45
4	Industrial	-	-	-
5	Trading (Import/Export)	-	-	-
6	Construction	5	2,758,247.72	11.50
7	Agriculture	1	500,000.00	2.08
8	Transportation			
9	General	43	26,763.41	0.11
	Total	108	23,992,122.99	100

Source; Myanmar Microfinance Bank 2019

Loan outstanding amount and its percentage on each economic sector as 30.9.2019 are described as Table (3.2). The policies are limited to lending to lend in Services (microfinance institution), Trading and Production sector preference orderly, in analyzing the economic sectors, lending to Services, Trading and Production sector preference orderly are met in.

Table (3.3)LoanPortfolio Management to classification in Loan Types of Loan Amount as at 30.9.2019

Sr No.	Loan Types	Borrowers	Loan Amount Ks-Million	Percentage
1	Overdraft	6	1,574,993.53	6.56
2	Demand Loan	55	19,040,366.10	79.36
3	Term Loan	4	3,350,000.00	13.96
4	Hire Purchase	43	26,763.41	0.11
	Total	108	23,992,123.04	100

Source; Myanmar Microfinance Bank 2019

Loan outstanding amount and its percentage on loan type as 30.9.2019 are described as Table (3.2). The policies are limited to lending to lend in Demand loan, Overdraft, Term Loan type preference orderly, in analyzing the loan type , lending to Demand Loan ,Term Loan and Overdraft type sector orderly are met in.

3.5 Loan Portfolio Management Practices of Myanmar Microfinance Bank

Loan portfolio management practices in Myanmar Microfinance Bank are managing and controlling for reducing risk of the credit process, reducing the default loan. Bank can reduce the loan portfolio default risk by considering the credits repayment history of all loan.

3.5.1 Assets classification

Myanmar Microfinance Bank classify the loans as following classes;

Standard debt is defined the loans, that not absent on interest or principle, that follow the bank's rule and regulation regarding with lending, that is health business and get income being enough for interest and principle to meet their obligation.

Watch is defined the loans that absent on interest, that breach the loan rules and regulation of bank, that is probability to absent on interest and principle at future including the lower ability and willingness to repay the loan. The loans defined as watch or special mentioned are 2 borrowers of loan and its amount is 2.33 billion as at 30.9.2019. It is the 9.8% of total loan from Table 3.4.

Substandard debt contain the loans that exceed to repay the interest or principle six months and above. The loans, defined as sub-standard is 1 number of loan and its amount is 0.05 billion as at 30.9.2019. It is the 0.21% of total loan from Table 3.4

Doubtful debt isloans that exceed to repay the interest and principle 12 months (one year) and over. Doubtful debt specified by bank as at 30.9.2019 are 6numbers of loan and its amount is 0.005 billion. It is the 0.02% of total loan from Table 3.4

Bad Debtisthe default loans to repay the interest and principle 24 months (2 years) and above. Bad debts are not defined by as at 30.9.2019 from Table 3.4

Table(3.4)Assets Classification as at 30.9.2019

SrNo.	Assets class	Borrowers	Loan Amount	Percentage	Remark
1	Standard	99	21.605	90.06	-
2	Watch	2	2.33	9.8	-
3	Sub-standard	1	0.05	0.21	NPL
4	Doubtful	6	0.005	0.02	NPL
5	Bad	-	-	-	-
	Total	108	-	-	-

Source; Myanmar Microfinance Bank (Benchmark of NPL ratio is not more than 5%)

Classification of loans and advances and specific provisions

Myanmar Microfinance Bank was classify and made specific provisions in the following manner: standard, watch, sub-standard, doubtful, bad and loss. Specific provision shall be recorded in the bank's accounts and charged to the profit and loss account in the month in which it occurs and shall not be spread over future periods except as allowed under paragraph 20.General provision is that banks are required to maintain general loan loss reserve by making general provisions up to 2% of total outstanding loans and advances. All interest accrued from the date a loan or advance is classified as doubtful shall be suspended and any interest already accrued shall be reversed. Interest earned on loans and advances which are classified as doubtful or loss shall only be recognized as income when the interest has been collected by the

bank. A bank shall ensure that all overdraft loans in its books are cleared in full for a period of two consecutive weeks annually. If an overdraft loan is not cleared in full, such loan must be immediately classified in accordance with CBM regulations Rescheduling of Loans and Advances is that a bank may reschedule a non-performing loan provided that the rescheduled loan remains classified in the same category.A bank may reclassify the rescheduled loan if, the borrowers has complied with the terms of rescheduled loan for consecutive months. The bank may reclassify the loan as a performing loan upon full settlement of all arrears in interest or principal.Providing that the funds for the repayment of the arrears are not obtained from the creation of new loans or debt instruments from the same bank. Banks shall maintain adequate records supporting their evaluations of potential loan losses and the entries made to ensure adequacy of the provisioning for loan losses.

Table (3.5)Classification of Loans/Advance and Specific Provisions

Sr No.	Classification of loans/advance	Day past Due	Provisions on shortfall in security value
1	Standard	30 days past due	0%
2	Watch	31 to 60 days past due	0%
3	Sub-standard	61 to 90days past due	5%
4	Doubtful	91 to 180 days past due	25%
5	Bad	Over 180 days past due	50%
6	Loss	Over 180 days past due	100%

3.6 LoanRisk Analysis and Loan Risk Monitoring in Myanmar Microfinance Bank

Credit risk analysis system is the mathematical or statistical process of converting data about prospective applicants in data and this can be used to make decision. Credit scoring is to isolate the effects various applicants'characteristics on delinquencies and default by using historical data and statistical techniques.

The elements of credit scoring card in Myanmar Microfinance Bank are Character of Borrower including Customer will to pay, Past repayment experience, High credit discipline, Past performance in repayment and Other specify, Capacity Completion including Cash in Bank,Projected cash earning ,Business skills and Other specify (Business they are engaged in),Conditions including Poor economic conditions,High credit discipline,Interest prevailing in the economy and Other specify, Collateral/security including Has assets,Capital invested in the business, Size of security,Cash in bank,Other specify, Common sense/Reasonableness,Reasonableness of cash flowProjected cash flow and Other Specify,ContributionHas assets, Capital investment in business, Willingness to do business correctly and Other specify.

Loan risk monitoring in Myanmar Microfinance Bank entails keeping track of the loan customers' activities in relation to the loan on regular basis to ensure that terms and conditions of the facility are complied with as contained in the loan agreement which including on sight and off sight monitoring. It comes up that mostly credit officers check carefully on sight monitoring which has to do with field visits to determine how customers are faring in their activities and their ability to repay loans promptly.

CHAPTER IV

ANALYSIS OF THE EFFECTIVENESS OF LOAN PORTFOLIO MANAGEMENT IN MYANMAR MICROFINANCE BANK

This chapter covers the presentation and analysis of the data used in the study. It shows the findings of the study which seek to answer the research question.The main issue of the research which is loan portfolio management.There have been six sections; section one express the research design, section two analyses on the demographic profile of respondent, section three examines credit risk management , section four discuss bank's loan portfolio diversification, section five discus loan risk analysis and loan risk monitoringand section six are evaluated profitability of the bank.

4.1 Research Design

Research design is a plan of the study is to be completed. A plan includes research method, population of the study, sampling method, research material and data collection, and method of analysis. Research method in this study is used analytical descriptive method. The study will use stratified random sampling to select samples to participate. The target population is employee who are the main stakeholder of the organization to achieve the good performance of these organization. The researcher to improve accuracy/efficiency of estimation, focus on important sub-populations, ignore the irrelevant ones. This study sampled at 60 staffs from organization, who are in the top and middle management role for financial , operational and credit management. The sample is reasonable because strong awareness of loan portfolio management level. The type of data to be used in this survey will be primary data. The researcher used structured questionnaires as the main method of collecting data. The questionnaires contain closed questions with Likert scale. It will have three sections: Section A is Demographic Profile Data of participants, Section B focus on credit risk management, and Section C focus on bank's loan portfolio diversification and Section D focus on loan risk analysis and loan risk monitoringof the organization. In this study, the measurement of variables was done independent variable of Credit Risk Management, Bank's Loan Portfolio

Diversification and Loan Risk Analysis and Loan Risk Monitoring while one dependent variable is Profitability

4.2 Demographic Profile of Respondents

Demographic information will be compared between sub-groups of respondents how vary the responses are. The study sampled 61 participants who are working in the top and middle management level in our organization. 61 out of which 60 responded to the questionnaire. Therefore, response rate has been presented as 98 percent. Demographic profile includes five factors such as gender, age, position, education level, working experiences in our bank organization Each characteristic has been analyzed in terms of frequency and percentage. The summary of demographic profile data is presented as follows sections.

4.2.1 Gender

The first analysis of the demographic profile of respondents is gender. It is classified into male and female. Table (4.1) shows the result of gender demographic profile data of the respondents.

Table 4.1 Gender of Respondents

Gender	Frequency	Percentage
Female	40	66.7
Male	20	33.3
Total	60	100

Source: Survey Data, 2019

By the information of gender composition in Table (4.1), it is found that 40 no. of female, 20 no. of male and 1 is other gender respondents in the study. In term of percentage, male respondents have been 33.3 percent while female respondents cover 66.7 percent in the study. It is found that gender balance and there has no influential between male staff and female staff' perception on the study.

4.2.2 Age

Age of the respondent will determine his/her knowledge with the focus of the study. Therefore, age is one of the demographic profile factor asked in the survey. In this study, age are grouping into four: 25-30 years old, 31-40 years old, 41-50 years

old, and 51-60 years old and above 60. Table (4.2) summarizes on the result of age of the respondent employees.

Table 4.2 Age Group of Respondents

Age	Frequency	Percentage
25-30	3	5.0
31-40	30	50.0
41-50	14	23.33
51-60	11	18.3
Above 60	2	3.3
Total	60	100

Source: Survey Data, 2019

According to the analysis of age of the respondents, it is found that the age group 25-30 years includes 3 respondents, 31-40 years includes 30 respondents, 41-50 years includes 14 respondents, 51-60 years includes 11 respondents and above 60 years includes 2 respondents. The respondents were asked to indicate their age 50 % who were the majority were between the age of 31-40 and above 60 years' age group shares the smallest with 3.3 percent. From that age analysis, matured age group of between 31 and 40 years old employees who are respond to the survey with their views on loan portfolio management on the profitability practices in the organizations well.

4.2.3 Position of Respondents

Position of the respondents is another key factor of demographic profile data in survey. Perspective on the policy, procedures and practices will vary upon the position. In the analysis of position of respondents, there are six categories based on their organizational structures Six categories in this survey are from Assistant Manager, Manager, Assistant General Manager, Deputy General Manager, General Manager and BOD Members from our bank but are daily in touch with loan portfolio management practices. Table 4.3 summarized the result on the position of respondents as follows.

Table 4.3 Position of Respondents

Position	Frequency	Percentage
Assistant Manager	32	53.3
Manager	7	11.7
Assistant General Manager	7	11.7
Deputy General Manager	3	5.0
General Manager	2	3.3
BOD Members	9	15.0
Total	60	100

Source: Survey Data, 2019

Regarding to summary of Table 4.3, it is found that out of 60 respondents, 32Assistant Manger, 7are Manager, 7 are Assistant General Manager, 3 are Deputy General Manager, 2 are General Manager and 9 are BOD Members. In the term of percentage, Assistant Manager shares the largest portion with 53.3 percent, BOD Members includes 15 percent with the second largest portion. There will divide into two portion such as Officer and BOD the percentage shares nearly equal. From the survey result, the responses on the survey questions for profitabilitypractices of organization from the point of top management and loan officers view as well as the point of programme and operation management level view.

4.2.4 Education Level of Respondents

Education is one of factor in demographic profile data which influence on the responses of the study. In the analysis of education level, there have been grouped into four: college diplomat, master degree holder, post graduated and university degree holder. Respondents are asking for their highest education level in this study. Table 4.4 summarized the results from the respondents as follows.

Table 4.4 Education Level of Respondents

Education	Frequency	Percentage
College Diploma	-	-
Master	4	6.67
Ph.D	-	-
Post Graduate	-	-
University	56	93.33
Total	60	100

Source: Survey Data, 2019

Regarding the results of the analysis, it is found that 60 respondents are University degree holders and 4 respondents are Master degree holders. In term of percentage, University degree holders are account for the largest portion with 93.33 percent and Master degree holders are the second largest with 6.67 percent. From that education level analysis, All participants have strong educational background as International organizations' staff. Their responses on the practices of loan portfolio management of their organizations and related stakeholders will be with well-thinking.

4.2.5 Working Experiences of Respondents

Asking for working experiences in their organizations focus on the relevant working experiences in their field and having understandable on the survey objectives. In the analysis of working experiences, it is grouped into three: 1- 5 years, 6-10 years and above 10years. Table 4.5 reports on the results of the analysis on the working experiences of the respondents as follows.

Table 4.5 Working Experiences of Respondents in current organization

Experiences	Frequency	Percentage
1-5 years	6	10.00
6-10 years	21	35.00
Above 10 years	33	55.00
Total	60	100

Source: Survey Data 2019

Table 4.5 shows the result of 60 respondents. Among them, 6 respondents have 1-5 years working experiences, 21have 6-10 years' experiences, 33have above 10 years' experiences. In term of percentage, majority group is above 10 years' experiences with 55 percent who 33 Respondent are long-term service in banking sector. Longer working experiences employee responses more on the survey questions of loan portfolio management of the organization.

4.3 Assessment of Reliability

This study has extensively used Likert scales. Thus, before they are used, it should be checked their reliability.Reliability analysis is a test of Cronbach'salpha to ensure the measurements are free from bias in order to obtain consistent results (Sekaran, 2003). The test of Cronbach's alpha value is appropriate for multi- scaled items and is a perfectly adequate index of the inter-item consistency reliability (Cavana, Delahaye, &Sekaran, 2001). The coefficient alpha value is range from zero (0) to one (1) whereby value less than 0.60 indicate unsatisfactory internal consistency reliability (Hair et al., 2006; Malhotra, 2010). The rule of thumb for Cronbach's alpha coefficient value is shown in table 4.6.

Table 4.6The rule of thumb for Cronbach's alpha coefficient value

Alpha Coefficient Range	Strength of Association
Less than 0.60	Poor
0.60 to less than 0.70	Moderate
0.70 to less than 0.80	Good
0.80 to less than 0.90	Very Good
0.90 and above	Excellent

Source;Hair, J. F., Babin, B. Jr., Money, A. H., &Samouel, P. (2003). Essential ofbusiness research methods.United Stated of America: John Wiley& Sons.

If alpha value is high, then this suggests that all the items are reliable, and the entire test is internally consistent. If alpha is low, then at least one of items are unreliable and must be identified via item analysis procedure. However, as per DeVellis (2003), the Cronbach's alpha value should ideally be above 0.7.

Table (4.7)Results of Cronbach's Alpha Value

Factor	Type of Scale	No. of Items	Cronbach's Alpha Value	Result
Credit Risk Management	5-point Likert	10	.861	Very Good
Bank's Loan portfolio Diversification	5-point Likert	15	.870	Very Good
Loan Risk Analysis and Loan Risk Monitoring	5-point Likert	10	.855	Very Good
Profitability	5-point Likert	5	.893	Very Good

Source: Surveyed Data, 2019

Table (4.7) is a summary of the reliability test based on the Cronbach alpha co-efficient for the five scales items in the survey instrument. As a result of Table

(4.7), the Cronbach's alpha for all dimensions are exceeding the minimum alpha value of 0.70 (Hair et al., 1998), thus the construct measures are deemed reliable and all items in the construct measures are retained.

4.4 Analysis on Loan Portfolio Management in Myanmar Microfinance Bank

The analysis on loan portfolio management in Myanmar Microfinance Bank has four main dimensions which are based on loan portfolio management main pillars. They are loan portfolio management, bank management, bank regulator, profitability, reduction of non performing loan and risk mitigation. Those dimensions are measured by mean value and standard deviation. The findings are presented and discussed as follows.

4.4.1 Credit Risk Management

In this section, the credit risk management was analyzed by using ten elements: risk management skill, analytical skill. The main score of each element is shown in Table 4.8 as follows.

In the analysis of credit risk management of Myanmar Microfinance Bank, Table 4.8 reports that the overall mean score for credit risk management of Myanmar Microfinance Bank is 4.40, indicating that there has good credit risk management Myanmar Microfinance Bank as a core value of loan portfolio management practices.

The highest mean score is 4.82(standard deviation 1.110). This highest number indicates that effectiveness of loan portfolio management that the Board and management understand and control the bank's credit risk management and credit scoring system. Bank has good monitoring and controlling system.

The lowest score is found that at understandable of loan portfolio management with the mean value 4.13 (standard deviation 0.999). The result shows that there are some weak points in loan portfolio management in Myanmar Microfinance Bank.

From the analysis on the credit risk management in Myanmar Microfinance Bank, the result clearly indicates that the manager, above management and BOD members are high knowledge the credit risk management system.

Table 4.8 Credit Risk Management

Credit Risk Management	Mean	Standard Deviation
Our bank's Credit scoring system covers Credit Risk.	4.28	.904
The Board deals with the branches of risk capacity or tensions that arise from its implementation.	4.43	.698
Loan collection method contributes credit risk management	4.13	1.022
Credit Managers are involved in credit risk assessment in our bank.	4.58	.497
Central bank of Myanmar Guidelines do the Risk Management reviewer follow in formulating the practice	4.28	.940
Our bank goal of loan portfolio management is to reduce the quantity of non-performing loan.	4.65	.732
Our bank risk management committee hires industry specialists.	4.23	1.110
The repayment probabilities of outstanding loan should have negative correlations to diversify a loan portfolio	4.13	.999
The purpose of lending loans to public is to earn more profits previous years.	4.82	.390
Our bank uses the monitoring and transaction costs	4.48	.725
Overall Mean	4.40	

Source: Survey Data, 2019

4.4.2 Bank's Loan Portfolio Diversification

In this section, the bank's loan portfolio diversification of Myanmar Microfinance Bank were analyzed by using five elements such as loan to concentration limit for credit, collateral requirements, new product within 12 months to 24 months, risk reduction and lending to sector. The main score of each element is shown in Table 4.9 as follows.

Regarding to the analysis of bank's loan portfolio diversification of Myanmar Microfinance Bank, Table 4.9 reports that the mean score for the bank's loan portfolio diversification is 4.57, indicating that there has higher bank loan portfolio

diversification of Myanmar Microfinance Bank represented as a core value of loan portfolio management practices.

The highest mean score is 4.57 (standard deviation 0.965). This highest number indicates the bank has strong management on the bank's profitability. The respondents understand the portfolio diversification.

The lowest score is found that bank lend loans to consumers working for the same employer or the same industryat marketing problem with the mean value 4.37 (standard deviation 0.637).The result show that the respondents need to know lending by sector.

Table 4.9 Bank's Loan Portfolio Diversification

Bank's Loan Portfolio Diversification	Mean	Standard Deviation
Concentration limits for credit within specific industries	4.48	.770
Pricing, term, and collateral requirements are the same for all types of loans.	4.47	.676
Management anticipate introducing a new loan product within the next 12 to 24 months	4.45	.746
Any risk reduction efforts and factors besides diversification that the association uses to limit risk from concentrations	4.57	.500
Bank lend loans to consumers working for the same employer or the same industry	4.37	.637
Overall Mean	4.44	

Source: Survey Data, 2019

4.4.3 Loan Risk Analysis and Loan Risk Monitoring

In this section, loan risk analysis and loan risk monitoring was analyzed by using seven elements: the loan service, bank limits the exposure to bad debts, allocation of risk management, applying monitoring risk, monitoring risk determining, primary risk and contributory risk. The main score of each element is shown in Table 4.10 as follows.

In the analysis of loan risk analysis and loan risk monitoring, Table 4.10 reports that the mean score for loan risk analysis and loan risk monitoring is 4.44, indicate loan risk analysis and loan risk monitoring are very strong for banks.

The highest mean score is 4.47 (standard deviation 0.623). This highest number indicates that Myanmar Microfinance Bank apply the loan risk analysis and

loan risk monitoring systematically. This is to conclude that respondents agreed that loan risk monitoring is highly appreciated, and this has great influence in profitability on MMB Bank.

The lowest score is found that MMB Bank limits the exposure to bad debts with the mean value 3.65(standard deviation 1.087).

From the analysis on the loan risk analysis and loan risk monitoring on Myanmar Microfinance Bank, the result shows that there has very good practices of loan risk analysis and monitoring to Myanmar Microfinance Bank.

Table 4.10 Loan Risk Analysis and Loan Risk Monitoring

Loan Risk Analysis and Loan Risk Monitoring	Mean	Standard Deviation
MMB Bank provide loan service that fit to the preference of the borrowers.	4.47	.623
MMB Bank limits the exposure to bad debts.	3.65	1.087
The allocation of MMB risk management deeply relies on the diversification on loan risk to decrease the NPL amount	4.47	.623
Monitoring risk is well applied in MMB Bank.	3.92	.829
MMB Bank determines nature of risk during risk monitoring	4.67	.601
MMB Bank categorizes risks during risk monitoring in term of primary risk.	4.27	1.023
MMB Bank categorizes risks during monitoring in term of contributory risk.	4.18	1.049
Overall Mean	4.23	

Source: Survey Data, 2019

4.5 Effect of Loan Portfolio Management of Profitability on Bank Performance4.5.1Analysis on of Profitability of Bank Performance

In this section, bank performance was analyzed by using five elements: profitability of the bank. The main score of each element is shown in Table 4.12 as follows.

Table 4.11 Profitability

Profitability	Mean	Standard Deviation
(1)Due to Loan Portfolio Management we expect on overall increase in our bank's profit end of year	5.00	.000
(2) Net interest income become from covering credit risk.	4.30	.530
(3) Our bank can operate on a longer- term basis with a return on equity (ROE) above 14%	4.33	1.020
(4) Risk diversification can earn more profit.	4.87	.343
(5) Non-performing loans incur heavy disposal expenses	4.52	.676
Overall Mean	4.604	

Source: Survey Data, 2019

In the analysis of profitability, Table 4.12 reports that the mean score for bank profitability is 4.604, indicating that there is good profitability ofMyanmar Microfinance Bank at the profit increase year after.

The highest mean score is 5.00 (standard deviation 0.000). This highest number indicates that the bank can reduce the non-performing loan due to loan portfolio management, value of financial asset and assets and liabilities management which leads to profit.

The lowest score is found that atnet interest income become the covering the credit risk with the mean value 4.30 (standard deviation 0.530). This lowest score indicates that bank performance is weak point the affecting of net interest income which understand by poorquality of covering of risk. The second reason is checking the credit record by the branch managerwho are lack knowledge of checking clients' credit history and this checking the credit officer check from the credit department.

From the analysis on profitability at the loan portfolio management of MMB Bank, the result shows that Myanmar Microfinance Bank has good profitability even scores are varying from highest to lowest.

4.5.2 Effectof Profitability of Bank Performance

In this section analyzes the effect of profitability on loan portfolio management. The multiple linear regression model is applied to analyze the effect of

profitability on loan portfolio management. The output from generating multiple linear regression model is shown in Table (4.13).

Table 4.12Effect of Loan Portfolio Managementon Profitability of Bank

	Unstandardized Coefficient		Standardized Coefficient	t value	p value
	B	Standard Error	Beta (β)		
Constant	7.323	.643	-	11.380	.000
Credit Risk Management	.463	.117	.521	3.949	.000
Bank's Loan Portfolio Diversification	.173	.141	.186	1.228	.225
Loan Risk Analysis and Loan Risk Monitoring	-.349	.168	-.277	-2.070	.043
Adjusted R Square	0.271				
F value	8.305				

Dependent Variable: Profitability of Bank Performance

Source: Survey Data, 2019

The result of analysis are presented in Table 4.13shows the power of the models is considered relationship between other influencing factor on profitability as value adjusted R square .271. The model explains of the variation of loan portfolio management namely credit risk management, bank's loan portfolio diversification and loan risk analysis and monitoring are explained by profitability. The value of F-test, the overall significant at 1% level. It can be clearly seen that all the coefficient of loan portfolio management such asbank'smanagement, banks' regulator and risk management in the model are jointly significant at 1% level on the profitability.Out of bank loan portfolio management factor, profitability is statisiticallysiginificance of th bank performance .

CHAPTER V

CONCLUSION

The chapter presents the conclusions drawn from the study and make some suggestionsrelating to the study objectives toidentify of Loan Portfolio Management practice of Myanmar Microfinance Bank and to investigate the effectiveness of Loan Portfolio Management of Myanmar Microfinance Bank.

5.1 Findings

This study has extensively used Likert scales. Thus, before they are used, it should be checked their reliability. Reliability analysis is a test of Cronbach'salpha. As a result of the Cronbach's alpha for all dimensions are deemed reliable and all items in the construct measures are retained.

The finding of the study revealed several factors that caused loan default and bad loans. Ineffective monitoring of loans and poor credit appraisal were emphasized by all respondents as major cause of loan problems.

From the findings, the bank loan portfolios are grouped into five (4) which are credit risk management, bank's loan portfolio diversification, loan risk analysis and loan risk monitoring and profitability.

The study of credit risk management of Myanmar Microfinance Bank, clearlyarticulation of the bank's loan portfolio management is reducing non-performing loan. This is a key function of the bank and thus the result shows the credit risk management of MMB is increase profit. The repayment probability of outstanding loan should have negative correlations to diversify a loan portfolio which shows that there is weakness in negative correlation to diversification of loan portfolio. Moreover, the overall mean score for the risk management is clearly indicates that the loan portfolio management of Myanmar Microfinance Bank is highly responsible to the bank profit.

The study of Bank's loan portfolio diversification of MMB Bank that has strong management on the bank's profitability. The respondents understand the loan portfolio diversification. The respondents need to know lending by sector.

The study of Loan Risk Analysis and Loan Risk Monitoring of MMB Bank that apply the loan risk analysis and loan risk monitoring systematically. This is to conclude that respondents agreed that loan risk monitoring is highly appreciated, and this has great influence in profitability on MMB Bank.

Finally, the study is analyzed the loan portfolio management on the effect of profitability of Myanmar Microfinance Bank.The study of profitability of MMB Bank on the loan portfolio management dimensions, the result shows the relationship between profitability and loan portfolio management at MMB Bank. Therefore it can be said that profitability performance mainly focuses on loan portfolio management and may have less focusing on the others. Among loan portfolio management core values of three, loan portfolio management is the most significant dimension on the profitability Myanmar Microfinance Bank.

5.2 Recommendation and Suggestions

The study concludes that there exists a relationship between loan portfolio management and bank performance of Myanmar Microfinance Bank. Loan portfolios are the major asset of banks and other lending institutions. The value of a loan portfolio depends not only on the interest rates earned on the loans, but also on the quality or likelihood that interest and principal will be paid .Obviously loans are a primary use of funds. The study also concludes that every bank should strive to have the best loans mix as it was found that some types of loans have greater effects on performance of commercial bank, thus commercial bank must have the best loan portfolio for them to leap more profits from these loans. Commercial banks in Myanmar should concentrate on advancing more of business loans and mortgage loans since they were found to strongly influence profitability of the banks. Therefore a large percentage of loan portfolio composition should made of mortgage loans, followed by business loans, government loans, personal loans and educational loans respectively.

The study suggest that for commercial banks to remain profitable they should have loan portfolio management which will help them in making prudent decisions about loan investment mix and policy matching investments to objectives. Level of loan asset allocation for banking institutions should be balanced against risk and financial performance. Portfolio management techniques employed by banks should focus more on strategic issues for a portfolio of projects and the ability to achieve strategic objectives. The study further recommends that commercial banks should not ignore other non loans factors for they have fair constant contribution to the overall profitability of the banks. Since Overdraft loans and Demand loans were found to

strongly influence profitability of Myanmar Microfinance Banks should concentrate on advancing more of these loans to enhance their general performance.

5.3 Suggestion for Further Research

A limitation for the purpose of this research was regarded as a factor that was present and contributed to the researcher getting either inadequate information. The main limitations of this study were; some data was not readily available. This reduced the probability of reaching a more conclusive study. However, conclusions were made with the available data. The small size of the sample could have limited confidence in the results and this might limit generalizations to other situations.Time- Due to official duties was a major concern. The information required for the study was very confidential which limited its accessibility from the banks. Most of the information was in very raw form and thus requiring a lot of time to compute it. Further studies should be done on the general credit risk management practices on the profitability of the banks. Research should be done on the factor that influences the accessibility of the bank loans from commercial banks. Further, a similar study should be done on the relationship between loan portfolio and performance of MFIs.

REFERENCES

Adamu Idama, A. A. (2014). Credit Risk Portfolio Management in Microfinance Banks:. *Universal Journal of Applied Science 2(6): 111-119*.

Adamu Idama, A. A. (2014). Credit Risk Portfolio Management in Microfinance Banks:. *Universal Journal of Applied Science 2(6)*.

Armendariz and Murduch. (October 2017- March 2018). *International Journal of Management and Commerce Innovations ISSN 2348-7585 (Online).*

Boateng, O. (2011). *Optimal Loan Portfolio Management (A case study of CAL Bank, Nhyieaso Branch-Kumasi)* (Vols. BBA- Banking & Finance) PG3051309).

GGSIPU, P. (n.d.). *(NEW DELHI) SECURITY ANALYSIS AND INVESTMENT MANAGEMENT – 3RD SEMESTER – HOME | BBA & MBA NOTES.*

GIZ. (2004). *World Depelopment Report.* World Banks.

Hair, J. B. (2003). *Essential of Business Method.* Unted Stated of Ameica.

Joseph Macharia Kihuro, D. C. (2018, December). Credit Risk Management and Bank Performance. *Journal of Economics and Finance (IOSR-JEF), 9*(6 Ver).

Liliane Mwizerwa, D. P. (2018). Effects of Loan Portfolio Management on Financail Performance of Commercial Banks in Rwanda. *International Jornal of Management and Commercial Innovations, Vol 6, Issue 1, pp: (542-551)*.

M.Muite., C. (2001). *Credit Scoring Practices and Non-Performing Loans in the Kenyan Commercial Banks* (Vol. D/61/P/8392).

Magali, J. J. (2014). Effectiveness of Loan Portfolio Management in Rual. *Business and EconimicsResearch, 2014,vol 4,No 1*..

Nguyen, L. (2016). *Credit risk Control for loan products in Comercial Banks..*

Paul Kiama Thingo, K. M. (2016). Effect of Loan Portfolio Growth on Financial Performance of Commercial Banks in Kenya. *Imperial Journal of Interdisciplinary volume 2*.

Tricker, B. (2015). *Principle, Policies, and Practices.* Oxford: Oxford University Press.

Wilks, T. &Zimbelman, M. (2004). Decomposition of fraud-risk assessments and auditors' sensitivity to fraud cues. *Contemporary Accounting Research*, 719-745.

Appendix -A

Questionnaires

This questionnaire is the part of a research study on the analysis of the effectiveness of loan portfolio management in Myanmar Microfinance Bank. You were selected to be a part of this study and kindly requested to you fill in the questionnaire.

By completing this questionnaire, you provide the information that will lead to:

(1) Profit maximizing from lending loans by Myanmar Microfinance Bank.

The questionnaire has individual strength scores in term of loan portfolio management non performing loans and profit maximizing measures. The score will be on the scale of 1-5 on the statements where 1 will be the lowest score and 5 the highest score.

Your response to the questionnaire will be entered directly into a database and treated confidentially. Your participation in the study will be highly appreciated.

Section A: Demographics\ Respondent profile

1. Position of Respondent

Assistant Manager	( )
Manager	( )
Assistant General Manager	( )
Deputy General Manager	( )
General Manager	( )
BOD Member	( )

2. Gender

   Male ( )

   Female( )

3. Age:

   25-30 years ( )

   31-40 years ( )

   41-50 years ( )

   51-60 years ( )

   Above 60 years ( )

4. Please indicate your highest level of education attained

   College Diploma ( )

   University ( )

   Post Graduate ( )

   Master ( )

   PHD ( )

5. Number of years for working experience in Banking Industry

   1-5years ( )

   5-10years ( )

   10years above ( )

Section B: Loan Portfolio Management

Credit Risk Management

(1)Our bank's Credit scoring system cover Credit Risk.	1	2	3	4	5
(2)The Board deal with the branches of risk capacity or tensions that arise from its implementation.	1	2	3	4	5
(3) Loan collection method contribute credit risk management	1	2	3	4	5
(4)Credit Managers are involved in credit risk assessment in our bank.	1	2	3	4	5
(5) Central bank of Myanmar Guidelines do the Risk	1	2	3	4	5

Management reviewer follow in formulating the practice					
(6)Our bank goal of loan portfolio management is to reduce the quantity of non performing loan.	1	2	3	4	5
(7)Our bank risk management committee hire industry specialists.	1	2	3	4	5
(8)The repayment probabilities of outstanding loan should have negative correlations to diversify a loan portfolio	1	2	3	4	5
(9)The purpose of lending loans to public is to earn more profits previous years.	1	2	3	4	5
(10)Our bank use the monitoring and transaction costs	1	2	3	4	5

Section (C) Bank's Loan Portfolio Diversification

(1)Concentration limits for credit within specific industries	1	2	3	4	5
(2) Pricing, term, and collateral requirements are the same for all types of loans.	1	2	3	4	5
(3) Management anticipate introducing a new loan product within the next 12 to 24 months	1	2	3	4	5
(4) Any risk reduction efforts and factors besides diversification that the association uses to limit risk from concentrations	1	2	3	4	5
(5) Bank lend loans to consumers working for the same employer or the same industry	1	2	3	4	5

Section (D) Loan Risk Analysis and Loan Risk Monitoring

Loan Risk Analysis and Loan Risk Monitoring					
(1) MMB Bank provide loan service that fit to the preference of the borrowers	1	2	3	4	5
(2) MMB Bank limits the exposure to bad debts.	1	2	3	4	5
(3) The allocation of MMB risk management deeply relies on the diversification on loan risk to decrease the NPL amount	1	2	3	4	5
(4) Monitoring risk is well applied in MMB Bank.	1	2	3	4	5

(5)MMB Bank determines nature of risk during risk monitoring	1	2	3	4	5
(6) MMB Bank categorizes risks during risk monitoring in term of primary risk.	1	2	3	4	5
(7) MMB Bank categorizes risks during monitoring in term of contributory risk.	1	2	3	4	5

Section (E) Profitability

(1)Due to Loan Portfolio Management we expect on overall increase in our bank's profit end of year	1	2	3	4	5
(2) Net interest income become from covering credit risk.	1	2	3	4	5
(3) Our bank can operate on a longer- term basis with a return on equity (ROE) above 14%	1	2	3	4	5
(4) Risk diversification can earn more profit.	1	2	3	4	5
(5) Non-performing loans incur heavy disposal expenses	1	2	3	4	5