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LOAN PORTFOLIO AND NON-PERFORMING LOANS

IN KBZ BANK LIMITTED

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ABSTRACT

This paper investigates on the relationship between loan portfolio and non-performing loans. Two main objectives of this study are to identify the loan portfolio of Kanbawza Bank and to evaluate the relationship between loan portfolio and non-performing loans in KBZ bank. This study covered the ten-year period from 2009-2010 Fiscal year to 2018-2019. It is mainly based on secondary data from previous researches and KBZ bank data from loan department. In this study, Pearson correlation and Multilinear regression analysis were used. The study shows that there a negative relationship between loan portfolio of trading, service and others sectors and non-performing loans of KBZ Bank while there is a positive and significant correlation between loan portfolio of construction sector and transport sector, and non-performing loans in KBZ bank. However, regression shows that all sectors except transport sector has all positive standardized coefficients. Production sector was excluded sector to show correlation and regression because only one year among the study years, has non-performing loans. In this paper, one limitation is that loan portfolio was the percentage composition of loan value granted for six sectors in each fiscal year. From this study, the correlation analysis shows that KBZ bank should grant more loans to trading, service and others sectors in future, but construction and transport sectors are not good sectors to provide loans at the present and should only do more strict collection for those two sectors. As large domestic bank, KBZ bank should have a deep understanding of local businesses to collect information about borrower's capacity to repay. In addition, Myanmar banking still needs efficient market where right information is available like Credit Bureau. The study finally suggests that KBZ bank should employ sector experts and skillful portfolio managers for bank investment.

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TABLE OF CONTENTS

REFERENCES

LIST OF TABLES

LIST OF FIGURES

CHAPTER I
INTRODUCTION

Banking is of vital importance to support the education, social and financial standard of a nation. Regarding with Myanmar Financial Sector, the private owned commercial banks are increasing rapidly since 1992. Nowadays, not only local banks also foreign banks appear widely and offer different kinds of financial services in this competitive environment. Recently, CBM allows retail banking to foreign banks so that our local banks can also concentrate more in retail products and services. The functions of banking are basically acceptance of deposits, provide loans and financial service to their customers. Among the services, it is undeniable that loan is the biggest asset to any bank and bank depends on it. So, KBZ Bank, leading bank in Myanmar, puts much emphasis on lending important sectors in Myanmar. In the past, banks only want to get biggest shares and lend improperly resulting in much rate of NPL and bank crisis. Thus, banks now do credit monitoring strictly on Non-performing loans. Bank needs strong credit assessment for every sector to finance properly. Excessive bank lending to only one sector which is real estate one, in 1997 was sensitive and has been noted as an explanation of the Asian Financial Crisis. The loan portfolio management of the bank will have a great impact on the profit and loss.

For every sector, loan appraisal assessment is a key control as an initial part in offering loan. Credit analysis is more about identification of what of risk in situation where a potential for lending is observed by the banks both quantitative and qualitative assessment forms. It is a part of the overall appraisal of the clients in terms of companies and individuals. Therefore, this generally helps to determine the entity's debt servicing capacity or its ability to repay. It is basically a process of drawing conclusions from available data. It is both qualitative and quantitative regarding the credit worthiness of the entity and making recommendations regarding the perceived needs and risk. Therefore, credit analysis is also concerned with the identification and evaluation and mitigation of the risks associated with an entity's failing to meet financial commitments.

There was found that non-performing loan (NPL) rates were high in most of the banks in Myanmar. That is big issue for financial sector and the impact of slow economy growth rate. Last two years, CBM made loan review and restructured all bank loans and force all banks to carry out credit monitoring non-performing loans from bank

assets. CBM forces banks to try reduce NPL rate by collection, transforming to performing loan and raising on bank capital. Large NPL amount was mostly for Construction sector in Kanbawza Bank but KBZ bank could control it gradually. It can be said that sector trend and loan growth in downturn sector impact to bank loan asset. When the time management level is restructured, KBZ bank employs more well-experienced expatriates after 2017 for constructive loan analysis process.

1.1   Rationale of the study

As a commercial bank, it is very important to balance saving and lending service to be sustainable financial intermediation. So, bank needs to choose wisely prospective customers among lots of borrowers. However, it is not easy to get all the records and information about the clients in this inefficient market because Credit Bureau is not ready yet in Myanmar. Bank employs skillful credit analysts who have deeply knowledge on loan assessment because they are directly related to manage, report and monitor bank loans in accordance with adapted credit policies. Banks assist the sector development of Myanmar by providing loans to expand or smooth these businesses. Similarly, loan portfolio which includes various sector loans, is important to be the efficient asset of a bank.

KBZ bank strictly focuses on single lending limit according to CBM rules. Therefore, borrowers need other local or foreign banks to do joint financing like syndication loan or finding other investors. Regarding with interest rate policy, CBM instruct banks to collect with interest rate 13% per annum for collateralized loan. In addition, bank can now charge up to 16% per annum for non-collateralized loans. Main source of income for a bank is loan interest from lending business and bank depends on it to cover its operation cost and interest bearing on deposit.

KBZ bank diversify its portfolio across different industries or economic sectors. According to Winton (1999), he argued that the benefit from diversification should be greatest when bank loans have medium levels of downside risk. Pure diversification increases the banks' return, that means reduces the chance of failure. But, if the loans have a low exposure to sector downturns, it will help bank profit.

In the past, if collateral is strong, most banks easily lend and they did not measure other determinants. We all know that 1997 Asian Financial Crisis was one example of much lending on one sector. It happened because borrowers neglect interest

and principal repayment of their loans when their outstanding amount is close to their collateral value. This study will help find out how there is loan portfolio in economic sector during study period and what is the relationship between loan portfolio for recent ten years and non-performing loans result. This study will also highlight which sectors are related positively or negatively with total NPL loans.

1.2   Objectives of the study

This study is constructed by following objectives:

- To identify the loan portfolio in KBZ bank
- To evaluate the relationship of loan portfolio and non-performing loans in KBZ bank.

1.3   Scope and Method of the Study

This study focuses on Kanbawza bank in Myanmar. Of it, loan portfolio composition in KBZ Bank for ten years is identified as objective one. Then, this dissertation is mainly focused on the relationship of loan portfolio of each sector and non-performing loans in KBZ Bank from 2009-2010 to 2018-2019.

Pearson Correlation and Multilinear Regression Analysis is applied in this study. The secondary data is obtained from reviewing research papers and articles, google scholar, KBZ loan department, and previous MBF thesis papers. In this paper, loan portfolio was the composition of loan value granted for six sectors in each fiscal year. These secondary data can be collected in amount so it is one limitation of this study.

1.4   Organization of the Study

This study is constituted with five chapters. Chapter one is the introduction section with four subtitles. It included rationale for the study which shows the reason for choosing this title, objective of the study, scope and method of the study and organization of the study. Chapter Two describes the literature review of credit, credit analysis, loan portfolio of the bank, non-performing loans and its classifications. Chapter Three represents the profile of Kanbawza Bank, organization structure, KBZ current lending practices and loan portfolio compositions in KBZ bank. Chapter Four contains the Non-performing loans and its classifications in KBZ Bank, the regulatory

control of Central Bank of Myanmar, the relationship between loan portfolio and non-performing loans in KBZ bank during 2009-10 to 2018-19. Chapter Five, the final chapter, consists of the finding of the study, suggestions, and need for further study.

CHAPTER II
LITERATURE REVIEW

This chapter contains four parts; definition of credit and credit analysis, loan portfolio of the bank, Non-performing loans & its classifications.

2.1 Bank Credit and Credit Analysis

According to Shekhar and Shekhar (2005), a commercial bank provides credit to the community by collecting savings of people and combining into large amounts to be profitably used by enterprises for productive capacity of country and accelerating speed of economic development.

According to by Ludwig Von Mises (2013), when the bank lends depositor's money, this profit arises from the difference between the rates of interest that it pays its depositors and the rates that it charges its borrowers.

The main source of income for a bank comes from receiving interest income from granting credit. Moreover, bank gets interest on treasury bills from Central Bank of Myanmar. Fee incomes are received from remittance, commission and other services. Lending session is bank's biggest asset but it is very sensitive and crucial business. It is true that if there is no risk, there is no return. So, bank performs this role systematically and carefully by taking risk on credit.

The credit analysis seeks to identify the appropriate level of default risk associated with investing in that particular entity. Credit Risk is the risk of loss from a counterparty or debtor's failure to make a promised payment. By using financial ratios, cash flow analysis, trend analysis, and financial projections, an analyst can evaluate a firm's ability to pay its obligations. The outcome of the credit analysis will determine what risk rating to assign the debt issuer or borrower.

Traditionally, lenders have faced credit risk in the form of default by borrowers. Until now, credit risk remains major concern for lenders worldwide. If bank knows about the creditworthiness of a potential borrower, the greater the chance they can maximize profits, increase market share, minimize risk and reduce the financial provision that must be made for bad debt.

2.2 Loan Portfolio of the Bank

According to Vatansever and Hepsen (2013), the loan portfolio represents an important component of a bank's total assets. These assets generate huge interest income which is a critical measure of the bank's financial performance and stability. The size of the loan portfolio is impacted by the volume of bank lending which is in turn affected by both the customer demand and bank supply. According to earlier empirical studies, large banks have a comparative advantage in lending to large customers. It can be said that bank ownership impact on loan portfolio composition.

According to Andrew Winton (1999), diversification across loan sectors helps most when loans have moderate exposure to sector downturns. It means that when loans have low downside, diversification has little benefit, and when loans have high downside, diversification may actually increase the bank's profit. Thus, only lending right sector loans increase bank's profit. Similarly, lack of knowledge about markets can harm effectiveness of bank loans.

Moreover, economic development and sector productivity are also associated with efficient banking system. Generally, domestic banks have a deep understanding of local businesses and base their lending decisions on it and can develop long-term relationships. It helps banks to collect information about borrower's capacity to repay.

According to Berger and Udell (2006), legal environment can affect the composition of bank loan portfolio. For example, in asset-based lending activity, the value of collateral is more important than the financial ratios of the borrower. In this case, commercial laws on security interest is essential for such asset-based lending.

Information asymmetry generally gives lenders a harder time in distinguishing between good credit risks and bad credit risks. This will have an effect on the lender's portfolio as a larger proportion of the loans with a greater default risk and in turn result in higher non-performing loans.

Wolfson (2002), in an article on Minsky's theory of financial crises, he explained that when an economy expands, optimism increases on the level of loan portfolio. As the prices of financial assets rise, debt levels increase which leads to the financial system becoming increasingly fragile.

2.3 Non-performing Loans and its Classifications

According to Serwa (2013), the NPL ratio is a standard and widely used statistic measuring financial performance of banking institutions and is frequently employed to assess and compare the quality of loan portfolios, analyze lending policies and efficiency of banking sectors, price bank equity, predict bank failures and construct early warning models of financial instability.

According to Irum Saba (2012), there is no global standard to define non-performing loans at the practical level. A non-performing loan (NPL) is defined as a sum of borrowed money upon which the debtor has not made his or her scheduled payments for at least 90 days. A non-performing loan is either in default or close to being in default. Once a loan is non-performing, the odds that it will be repaid in full are considered to substantially lower. Non-performing loan provisions are regarded as controlling mechanism over expected loan losses. But, if the debtor starts making payments again on a non-performing loan, it becomes a re-performing loan, even if the debtor has not caught up on all the missed payments.

According to Bank International Settlement (BIS), the standard loan classifications are defined as follows:

- **Passed**: Loans paid back
- **Special Mention**: Loans to incorporations, which may get some trouble in the repayment due to business cycle losses
- **Substandard**: Loans whose interest or principal payments are longer than three months in arrears of lending conditions are eased. The banks make 10% provision for the unsecured portion of the loans classified as substandard.
- **Doubtful**: Full liquidation of outstanding debts appears doubtful and the accounts suggest that there will be a loss, the exact amount of which cannot be determined as yet. Banks make 50% provision for doubtful loans
- **Virtual loss and Loss (Unrecoverable):** Outstanding debts are regarded as not collectable, usually loans to firms which applied for legal resolution and protection under bankruptcy laws. Banks make 100% provision for loss loans.

Excessive financing and interest rate(high) is regarded main reason for high rate of NPLs in US banking sector. Study of Salas & Saurina (2002) conducted there is the problem of management inefficiency that leads to greater NPLs rate. Study of Rajan &

Dhal (2003) claimed that macroeconomic factors and financial factors both have significant impact over the NPLs rate. Some studies also considered the impact of ownership structure on it.

CHAPTER III

PROFILE OF KANBAWZA BANK

This chapter consists of the background of Kanbawza Bank including profile and organization structure, together with current lending practices of KBZ bank loans and loan portfolio compositions of Kanbawza Bank during 2009-2019.

3.1   Profile of the Kanbawza Bank

As a private bank, Kanbawza Bank was first established on 1st of July 1994 according to the permission of Central Bank of Myanmar Law and the Financial Institution of Myanmar Bank Law in Taunggyi, Southern Shan State. The name Kanbawza is related to a traditional name of the Shan State, an ethnic minority state of the Republic of the Union of Myanmar. U Aung Ko Win, the bank chairman, managed and performed banking operations under guidance of CBM. In November 1999, our present management acquired the organization and oversaw its development into one of the most sizably leading private commercial banks in Myanmar. In April 2000, KBZ headquarters was relocated to Yangon, the business capital of Myanmar. In November 2011, the Central bank of Myanmar granted an Authorized Dealer License (ADL) to KBZ bank as the first step to operate foreign banking business. Currently, KBZ bank has more than 500 branches across the country. Starting with an initial capital of Myanmar Kyat 477 million in 1999, KBZ bank has expanded the capital of MMK 375 billion in the year 2018. KBZ bank will maintain a continuous growth in financial industry along with the development of Myanmar.

KBZ bank is the first which has the capacity to have expanded internationally, with representative offices in Singapore, Thailand and Malaysia. With 18,000 staff, more than 500 branches including mini branches and 40% market share of both retail and commercial banking. In order to have financial inclusion throughout Myanmar population, it is widely promoting KBZ Pay, mobile money services, with regional sale blitz events. The bank contributes its massive effort for the strength of banking sector, which is important for a country's development, and it has been the highest corporate tax payer for six consecutive years.

The following are Vision, Mission and Core Values of KBZ bank. **Vision**: To become Myanmar's premier bank with a wide variety of products and services for

commercial and private customers and tries to get the customer's satisfaction through the following **mission** statement:

a) To ensure the highest level of customer satisfaction and trust by providing excellent banking services

b) To ensure the highest level of customer satisfaction and trust by providing excellent banking services

c) To continuously improve quality of our financial services through innovative thinking, investment in new technology and enhancement of human capital

d) To offer rewarding career opportunities and promote staff accountability at all levels

e) To act as a responsible corporate citizen by combining commercial pursuits with ethical business practices and socially responsible behavior.

Moreover, KBZ Bank is guided by a belief and a culture that runs throughout the entire organization. So, employees are driven by three values- Metta, Thet Ti, Virya- loving kindness, perseverance and courage. KBZ is moving forward by handling the Motto named "Strength of Myanmar."

Core Values are Teamwork and Cooperation, Honesty, Enthusiasm, Mutual Trust and Respect, Integrity, Leadership and Dedication.

Kanbawza Bank was also famous for its generous donations to society in many areas including CSR activities, Brighter Future Foundation and sponsorships. It has other business lines such as Jades and Gems, Banking, Trading (Export and Import), Agriculture, Air Lines, Hotel and Insurance.

3.2 Organization of Structure of Kanbawza Bank

There are many departments and branches in KBZ Bank. Each department has Head of that department and each branch has branch manager. KBZ Bank Limited is established Board of Director and senior management team. According to new organization structure, U Aung Ko Win is announced as Chairman Emeritus. In senior management structure, U Mya Than is new Chairman of KBZ Bank Ltd. There are two Vice Chairmen, one independent director, one non-executive director and one executive director in KBZ Bank Board of Directors. The new board of directors assumed their roles and functional responsibilities starting from April 1st 2018.

These are seventeen value centers and eleven functions under KBZ Bank organization structure. Except Smart Branches (Kamayut), Smart Branches (Emerging 600) and Smart Branches (Big 28), other value center and functions are departments of KBZ Bank. They are Corporate/Financial Institution loans, Deposit/Wealth, SME/Agent Banking, Unsecured Consumer, Treasury, Cash, Special Assets, Smart Branches (Emerging 600) and Domestic Remittance. Moreover, there are eleven functions which are Finance, Risk, Credit, Legal & Compliance, Audit, Technology, Marketing, Corporate Affairs, Sales, Human Resources and Shared Services. Three Deputy CEOs make management of their respective Value Centers and Function.

Figure (3.1) Organization Structure of KBZ Bank
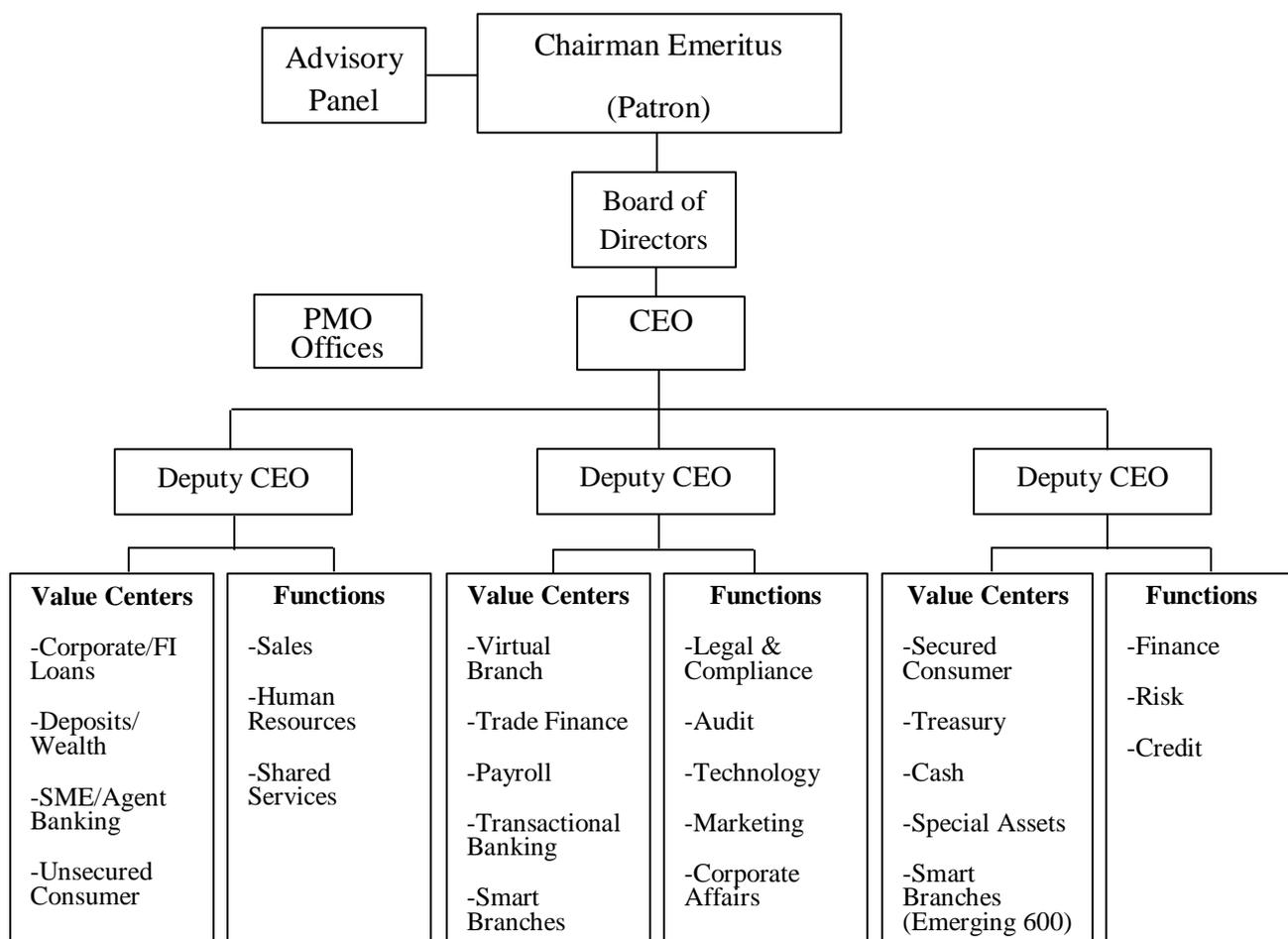
Source: KBZ Bank Ltd, Human Resources Management Department (2018)

3.3 Current Lending Practices in KBZ Bank

KBZ bank acts as financial intermediation for promoting the social and economic development of the country as a preferred bank of choice. Bank credit's policies embody the core principles of identifying, analyzing, evaluating, mitigating, approving and reporting credit risk in the lending function. KBZ Bank's high historical non-performing loans (NPLs) were materially influenced by the Bank's sole reliance on tangible security and name-lending. Every effort must be made to effectively manage NPL loans incidence throughout a systematic loan origination process during loan tenor.

There are current lending practices used in KBZ bank which are fundamental tools to assess the whole loan application.

1) Appraisal (Credit initiation, Customer site visit, Collateral Valuation, Credit Evaluation)

2) Sanction (Credit Approval, Letter of Offer)

3) Documentation

4) Supervision (Loan review and Credit Grading, Loan Monitoring)

5) Collection

6) Default

7) Legal Action

3.3.1 Appraisal

The methods of appraisal used by the bank contain some stages such as investigation of documents, holding interview, conduction site inspection and getting expert opinion.

In providing loans to individuals or organizations, Kanbawza Bank considers 5'C analysis which includes 1) borrower's character, 2) capacity,3) capital,4) collateral and 5) condition.

(a) Lending Focus

As a largest local commercial bank to play a crucial role in country's economic development, KBZ Bank provides innovative financing as below:

1) Accepting soft collaterals

2) Structuring the repayment terms based on project cash flow

3)   Exercising the option to convert the Bank's lending into equity where there is an upside in capital gain

4)   Lead arranging syndications in which the Bank has appetite for

(b)   **General Principles**

When lending is undertaken, the following **general principle**s will be applied.

1)   Credit will not be extended where the repayment source is unknown or speculative.

2)   Sources of collateral for, repayment and purpose of finance must be free of any reputational risk to the company.

3)   Primary repayment source should be from an identified cash flow or alternative financial arrangement and secondary source is regarded from realization of security.

4)   Customers should be required to provide timely and complete information, including up-to-date financial reports.

5)   All those in the credit decision process must understand the definition and implication of cross-border country risk which must be identified and reported where it is incurred.

6)   Absence of any policy does not by itself imply that an action is either permitted or forbidden, and neither is policy established by the precedent of approval.

(c)   **Acceptable Loan Tenor**

The loan tenor extended to any borrower shall have regard to the underlying cash conversion cycle of its business, its revenue projections, the underlying contract duration and the contract payment structure.

(d)   **Credit products and Facilities**

1)   Short Term Loan, Letter of Credit, Trust Receipt:

2)   Loan term loan for acquisition of land, project finance, other types of specialized lending:

3)   Unfunded facilities such as Letter of guarantee and performance bond

(e)   Unacceptable Lending

No credit facilities may be granted to/ where there is:

1) Contravention of the country's laws and violation of rules and guidelines issued by relevant governing authorities

2) Companies and individuals revealed to be involved in money laundering and other fraudulent activities following enhanced due diligence

3) Companies and individuals on the Bank's black list and the Specially Designated Nationals list

4) Speculative transactions

5) Partial financing for a project where there is doubt about the project owner securing the balance of funding to complete the project

6) Lending to a holding company which on its own does not have a robust operating cash flow and upstreaming of funds from its subsidiaries and investments exceed 50% of the holding company's revenue

7) Companies with negative net worth except where acceptable collateral is provided and the company can demonstrate a strategy and plan to bring business back to the black within a reasonable timeframe

8) Bank's security position is inferior to that extended to any other lender

9) Re-financing non-performing/irregular loan

10) Start-up with no financial performance to demonstrate viability; exception is permitted provided the sponsors have been operating a similar profitable business for at least the last 5 years

11) Cross-border financing

(f)   Security for loans

Collateral can be taken as several forms besides land and buildings such as:

1) Telecommunications network and digital network

2) Cash in currency different from or same as the currency of the credit facility

3) Bank guarantee and standby letter of credit

4)   Marketable and non-marketable stocks and shares

5)   Plant and equipment

6)   Infrastructure such as ports and power plant

7)   Stocks and book debts

When making a loan, KBZ must be provided with the necessary documents, especially those concerning with the ownership of the properties used as collateral. Among the documents needed for contract between the company (the borrower) and the Bank (the lender), includes an agreement which is called form (L-30). According to form (L-30), the borrower allows the Bank to examine whether the properties (used as collateral) are legally owned by the company (the borrower), and to assess the value of the collateral with the help of the Bank's Lawyer and Assessor respectively. Fees for the services of the Lawyer's and Assessor's shall be charged to the borrower.

(g)   Site Visit

While preparing the CP, lenders visit prospective borrower's premises and facilities personally as part of the evaluation process to authenticate the place of business to ensure that properties and facilities are genuinely owned by the prospective borrower and to reinforce the profile aspect of the credit analysis framework.

(h)   Other risk and Credit Proposal Analysis

Credit analysts must follow due diligence procedures other than credit risks, to achieve compliance with the relevant regulations, policies and guidelines e.g. KYC, AML, CFT and other legal, compliance and operational policies and procedures. When submit for credit approval authority, credit analysts should complete credit paper in standardized format for submission to relevant credit approval authority for evaluation and approval. It is important to make sure that Credit paper is completed in an objective and honest manner with no material omission after due diligence. If there is any material development or information that the business units are aware of after the submission of the credit paper, they are required to provide supplementary updates in a timely manner. Impact on Environmental, Social and Governance (ESG) is one of the requirements to consider.

3.3.2 Sanction

KBZ has not adopted proper credit scoring system yet. As per current Approval Authority Matrix, SME & Retail mortgage loans proposed under 100 million while Corporate and CRE loan from 500 million and if loan is above 27 million, it needs both MCC & BCC approval. The Credit Committee consists of senior executives and members of the board of directors, and is a separate committee in the bank. The committee re-checks the loan to be made before giving the sanction. Decision is made by senior executives of the bank as it concerns the future of the bank. Decision on the loan usually includes the following:

a) account name

b) the limit

c) method of lending

d) interest rate

e) services charges

f) margin

g) types of mortgage

h) security

i) repayment programme

Fire Insurance: After the loan agreement is made, the mortgage such as building and machinery shall be insured against fire at the Myanmar Insurance. The premium on the insurance policy is to be paid by the borrower only, though the name of the insurer is the bank. The value of the policy usually amounts to 125 percent of the total loan for other buildings in normal condition.

3.3.3. Documentation

There are two grounds for issuing a loan. They are (a) personal promise to repay and (b) collateral security. Promissory note is used to issue credit. It is a letter of agreement to issue the loan.

Branches need to follow these:

1) Informing to borrowers

2) Borrower's Agreement letter to get bank loan

3) Making Fire Insurance

4) Preparing & Signing Promissory note or On demand an

5)   L1 for loan application

6)   L2 for customer information

7)   L3 for sanction

8)   L4 for agreement on deduction on lawyer's fee and assessor's fee, interest and insurance premium from borrower's account

9)   L5 for individual promissory note or L6 for joint promissory note

10)   L7 for Equitable Mortgage

11)   L8 For Registered Mortgage

12)   L201 For security Register

3.3.4   Supervision

According to Pe Than Tin (2003), the ultimate aim of a loan is the complete payment of interest and loan. The following ten points need to be supervised to ensure that the aim is achieved: (1) Providing supervision on payment of interest and loan, (2) Providing supervision by studying the business, (3) Providing supervision by studying the collateral, (4) Providing supervision by the borrower, (5) Providing supervision by studying account, (6) Providing supervision by appointing loan inspector, (7) Providing supervision provided directly by headquarters, (8) Providing supervision through auditors, (9) Providing supervision mature loans and (10) Providing supervision when unusual events occur.

3.3.5   Collection

According to instruction of Loan Head office Committee, branches collect interest quarterly and do collection on Non-performing loans. If extension is needed to be done, banks send one-month advance notice. So, monitoring on accounts and do follow-up are essential in making loans.

3.3.6   Default

Loans are provided with a time limit. The loan becomes a default, a day after the set time limit if it is not repaid on the set date. To be able to provide supervision on defaults, the following needs to be carried out as defined by the World Bank and the International Monetary Fund:

(a)   Classification

(b)   Provision

(c)   Interest in suspense

3.3.7 Legal Action

Taking legal action is both unpleasant for the bank as well as for the borrower. Therefore, it is done as a last resort. The following steps are taken for legal action:

(a)   Issue of Bank Notice

(b)   Issue of Final Bank Notice

(c)   Issue of Final Management Notice

(d)   Issue of Lawyer's Notice

(e)   Taking Legal Action

These seven steps are processed as KBZ lending process. The very first loan origination measured with credit appraisal practices is the main driver to result in good or bad loans. That step consists of credit initiation, customer site visit & due diligence, collateral valuation, credit analysis and mitigation risks. Both relationship manager and credit analyst are key players to identify, analyze and evaluate these objectively and properly to submit the case to credit committee for approval or decline.

Once bank accesses the loan, if the borrower is existing customer, he needs to pay all outstanding interest first. After that, bank consider for additional loan or new loan. It is a sort of control not to be bad loan. Although security coverage is important, bank see whether the business can make fully repayment or not. Thus, future cash flow projection plays a critical role for repayment. Bank does not offer loan unless if there is no contribution from borrower side. There are so many controls and 5C's measurement to mitigate risk. So, the credit appraisal practices mainly impact on the amount of bad loans or NPL of a bank. However, there can be systematic risks such as political risk, trade border risk, and environmental risk.

3.4 Loan Portfolio Composition in KBZ Bank (2009-10 To 2018-19)

This section will discuss about each sector loan amount changes during my study period (2009-10 to 2018-19). It shows the granted loan in six economic sectors in each year and point out economic condition and bank appetite on which sectors in which year.

Table (3.1) Granted Loan Book Portfolio for each sector in KBZ Bank
(2009-10 To 2018-19)

Fiscal Year	Trading(%)	Production(%)	Service(%)	Constuction(%)	Transport(%)	Others(%)	Total Loan Portfolio(%)
2009-10	18	29.77	20.26	7.27	1.03	23.35	100
2010-11	27	31.61	16.14	9.28	2.50	13.57	100
2011-12	25	24.88	16.28	9.61	2.74	21.37	100
2012-13	26	20.57	15.30	9.91	2.34	25.38	100
2013-14	26	16.75	15.17	11.76	1.73	29.00	100
2014-15	27	15.21	13.05	14.81	1.39	28.57	100
2015-16	28	13.19	13.48	13.71	1.34	30.07	100
2016-17	25	11.59	13.28	23.18	1.90	25.40	100
2017-18	24	11.44	13.42	28.32	3.91	18.84	100
2018-19	24	10.88	14.07	24.53	3.95	22.65	100

Source: KBZ Bank loan department (2009-19)

This above table represents loan portfolio composition of ten-year study period. As it is shown, in 2009-10, production sector placed the biggest loan portion and the smallest portion is transport sector. Bank's second interest for that year was others sector which include plenty of small businesses. Service sector is followed after it. Trading and construction sectors were 18% and 7% respectively.

For 2010-11, as it is shown, production sector was the biggest portion and the smallest is transport sector same like 2009-10. Bank's second interest was Trading sector this year. Service sector is followed after it. Others and construction sectors were 14% and 9% respectively.

For fiscal year of 2011-12, both production and trading sectors were the big portions of loan and the smallest portion was still transport sector. Bank's second interest was others sector. Service and construction sectors were 16% and 10% respectively.

In 2012-13, trading sector was the biggest portion and the transport was still the smallest portion. Bank's second interest was others sector for that year. Production sector is followed after it. Service and construction sectors were 15% and 10% respectively.

For 2013-14, others sector was the biggest portion and the smallest was transport sector. Bank's second interest was trading sector this year. Production sector is followed after it. Service and construction sectors were 15% and 12% respectively.

For 2014-15, others sector was the biggest portion and the smallest was transport sector same like 2013-14. Bank's second interest was trading sector this year.

Production and construction sectors were followed after it. Service sector was 13% only.

For 2015-16, others sector was the biggest portion and the smallest was transport sector. Bank's second interest was trading sector this year. Construction and service were followed after it. Production sector was 13% of total loan portfolio.

For 2016-17, others and trading sector were the bigger portions of the loan and the smallest was transport sector. Bank's second interest was construction sector this time. Service and Production sectors were 13% and 12% of total loan portfolio.

For 2017-18, construction sector was the biggest portion of the loan and the smallest was transport sector. Bank's second interest was giving loan to trade sector this time. Others sector followed after it. Service and Production sectors were 13% and 12% of total loan portfolio.

For 2018-19, construction loan was biggest asset and transport was smallest portion in loan book portfolio like other previous years. Trading, others, service and production sector has different loan book profiles. It can be said that all different sectors except transport sector has changed loan portfolio in each year and KBZ bank has not much interest on transport sector so far.

Figure (3.2) Loan composition in terms of loan value (Myanmar Kyats Million) in KBZ Bank (2009-19)
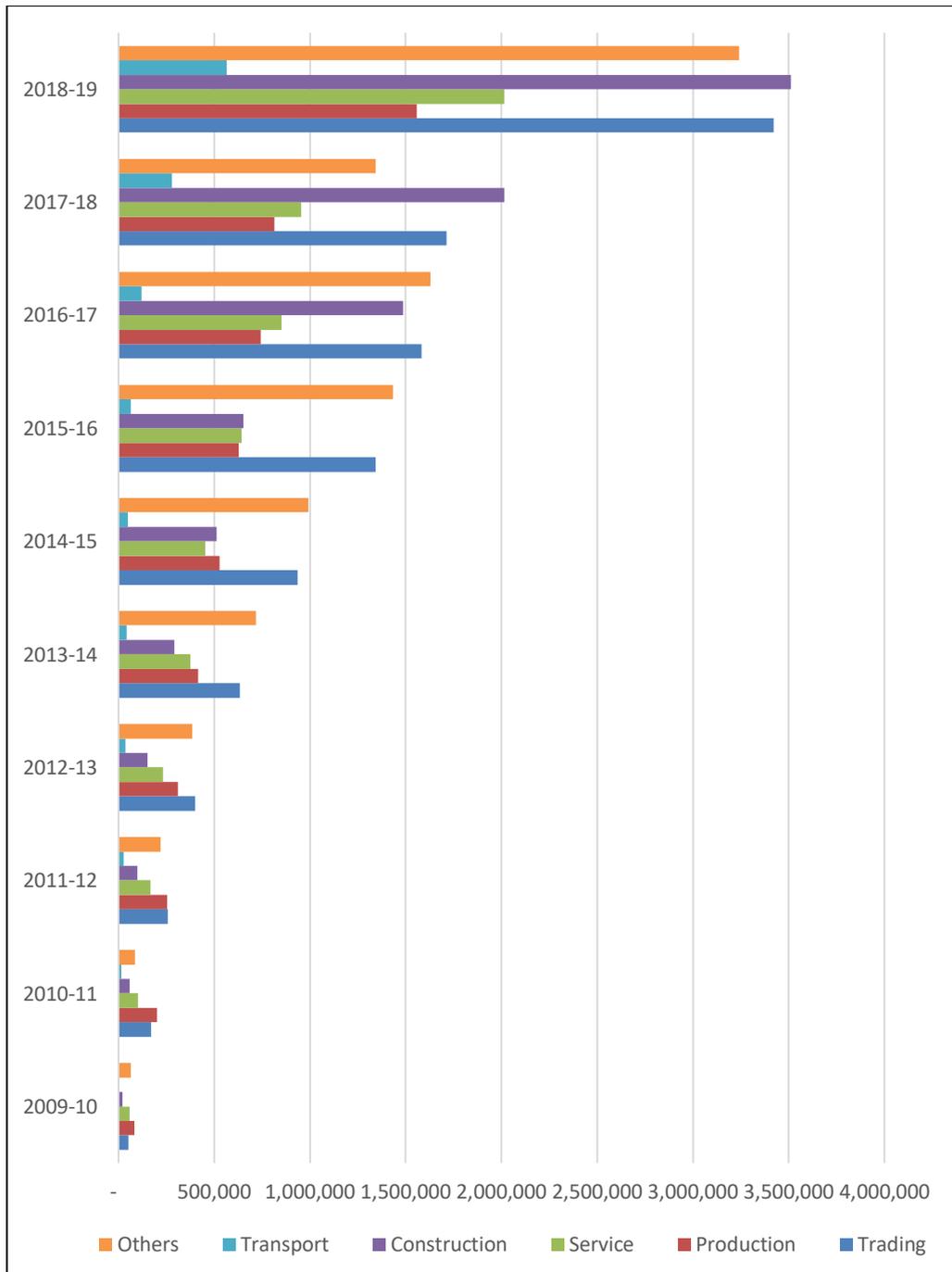
Source: KBZ Bank loan department (2009-19)

According to the figure (3.2), it shows that Kanbawza Bank granted loan mainly to production sector for two consecutive years (2009-11), trade sector for two consecutive years (2011-13), others business sector for four consecutive years, then construction sector in (2017-19). Among all sectors, transport is least granted loan

sector during study period. It shows that transportation sector is least development in Myanmar.

Loans issued for production was large when imports of goods were under control and local production was in demand. Loan for production are very much dependent on trade policy of the government. Trading loans also increased due to improvement in border trade relations between Myanmar and Western countries. Growth in Others sector loans increased job opportunities and support mainly small and medium enterprises. Construction sector loan increase help country's infrastructure development. From that figures, it is found that Kanbawza bank needs to support transport sector also because that sector is very important role for a country development.

Table (3.2) Yearly Total Loan Portfolio (2009-19)

Fiscal Year	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19
Yearly Total Loan Amount (MMK million)	279,773	632,436	1,026,400	1,512,196	2,475,945	3,466,326	4,764,797	6,417,507	7,119,643	14,314,432

Source: KBZ Bank loan department (2009-19)

Figure (3.3) Yearly loan portfolio Size (2009-19)
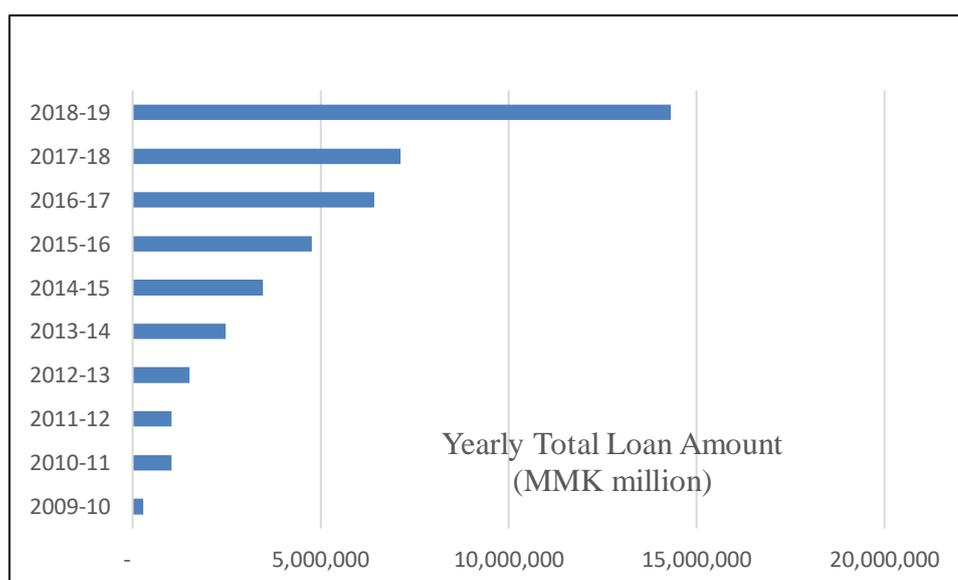
Source: KBZ Bank loan department (2009-19)

The above figure shows that KBZ bank lending rapidly grew yearly. As it is largest private bank in Myanmar, it has a competitive advantage to corporate loans and possessed high portion of market shares. Large lending can be made only when deposit is larger and enough capital. The table showed that loans was obviously larger especially in 2018-19.

From this loan composition in ten-year period, it was gradually bigger and bigger in size. KBZ bank lends to business and corporations widely in those six important sectors while deposits are abundant and capital is strong. Lending assets are bank biggest assets and it helps banks for substantial growth. However, loans on diversified sectors is sensitive when some sectors have downturn. All profits depend on diversified risks also. Thus, choosing right sector and granting loans can only increase bank's profit. Moreover, lack of knowledge about markets can harm effectiveness of bank loans. It can be said that economic development and sector productivity are related with efficient banking system. Mostly, local banks know well on local businesses and can develop long-term relationships. But bank needs to be careful on lending based on relationship. Strong legal framework is important for bank lending between the bank and borrowers. For example, in asset-based lending activity, the value of collateral is more important than the financial ratios of the borrower. Next thing is that lack of Credit Bureau will affect on the lender's portfolio. As a larger loan portfolio, it has a greater default risk and in turn result in higher non-performing loans.

Generally, when an economy expands, optimism on lending increases on the level of loan portfolio. Loans was usually large when there is giant production, good trade policy of the government, increasing job opportunities and supporting small enterprises, country's infrastructure development and so on. However, bank needs to consider for long trend of economics not only on booming period.

CHAPTER IV
LOAN PORTFOLIO AND NON-PREFORMING LOANS
IN KBZ BANK

This Chapter contains (1) Non-performing loans and its classifications in KBZ Bank, (2) Regulatory control of Central Bank of Myanmar, (3) NPL loans of various sectors in Kanbawza Bank. Also, this section will mainly study on the relationship between loan portfolio and total non-performing loans in KBZ Bank.

4.1   KBZ NPL loans and its classifications

Loan classification is key risk management tool in the banking industry. Loans classification recognizes the following classes: normal, standard or passes, specially mentioned or watch, substandard, doubtful and loss. Generally, the appropriate classification for an individual account is determined on a case-by-case basis, based on the principles below, by taking into account all relevant information. Nonetheless, in order to accelerate the process of evaluating the quality of loans and to make provisioning for possible loan losses, all loans and credit facilities is classified as follow:

a. **Standard Loans**: If loan is repaid in due time as determined in the contract (at the maturity date) and the financial position of the borrower is sound, the bank is to classify those loans as standard loans because payment is made beyond maturity within one month.

b. **Irregular Loans (Watch Loan):** The financial position of the borrower is currently adequate but potential weaknesses exist. There can be result in a deterioration of the borrower's financial position at a future time. Principal or interest are delinquent for a period from 31 days to 60 days from the due date, those loans are defined as Irregular Loans or Watch Loan.

c. **Sub-standard Loans**: When loans are not adequately secured, the borrower's financial position is not satisfactory. Moreover, the principal or interest has not been repaid for a period of 61 to 90 days from the due date, such loans are defined as Sub-standard Loans.

d. **Doubtful Loans**: A loan classified as doubtful has all the characteristics of a substandard loan and credit weakness and the principal or interest has not been

repaid for a period of 91 to 180 days from the due date, such loans are defined as Doubtful Loans.

e. **Loss Loan**: Certain assets are considered uncollectable and bankable assets are not warranted. This classification does not mean that an asset has absolutely no recovery or salvage value, but rather that it is neither practical nor desirable to defer the process of writing it off, even though recovery may be possible in the future. Non-performing assets that are at least 181 days past due are also classified as losses, unless such assets very well secured.

The ratio of total NPLs to total loans that the bank has disbursed is commonly known as the asset quality ratio that is the best indicator for situation of NPLs. Regards to the formula for the non-performing ratio, it is exactly as its name implies, the total non-performing loans divided by total loan.

4.2   Regulatory Control of Central Bank of Myanmar

To monitor private commercial banks, Central Bank of Myanmar establishes regulatory measurement with particular focus on its role and responsibility. She also released the instructions related to the loans issued by banks.

It is also found that the review on the role of Myanmar shows that the CBM has provided strong leadership to private banks since their re-emergence in the 1990s. While economic growth, more loans were made by banks. The review on bank loans and economic growth shows that there are significant relations between them. CBM also effectively solved the bank crisis in 2003 and thus, Myanmar banks got recovery again within two years. CBM has clear rules in regard with the issue of loans, namely Instruction No.6 and No.10. Both instructions define a strong framework for giving loans. If all commercial banks follow the instructions strictly, they won't face with the occurrences of bad loans.

Central Bank of Myanmar issues instruction in order to supervise and regulate the Financial System. It has issued ten instructions related to loans since reform of the Myanmar Financial System was carried out in 1990.CBM already states that provision for bad and doubtful debts shall be made by the Banks against their specific assets. The provision on shortfall in security value for bad loans advances is 100% and for doubtful loans, it is 50%. But no provision is necessary for sub-standard loans.

CBM instructed that the banks need non-performing loans classification on case-by-case basis. Loans which has principal or interest in default for 2-3 months are to be classified as substandard loans, default for 3-6 months is to be classified as doubtful loans, and for 6 months and above they are to be classified as bad loans. In addition to specific provisions for doubtful and bad debts, all banks are required to build up and maintain a general provision account with at least 2% of total outstanding loans within a 5-year period.

Moreover, the statements of non-performing loans are needed to submit CBM at the end of each quarter. Similarly, statements of provision for bad and doubtful debts are to be submitted at the end of financial year.

4.3 Non-performing Loans of Various Sectors in KBZ Bank (2009-19)

This section will clearly state each sector non-performing loans resulted from granting loans during ten years.

Table (4.1) Non-performing Loans for Six Sectors in KBZ Bank (2009-19)

Fiscal Year	Trade	Production	Service	Construction	Transportation	Others	Total NPL (Million MMK)
2009-10	601	655	234	1737	204	639	4070
2010-11	599	0	219	1716	172	350	3056
2011-12	589	0	209	1537	203	171	2709
2012-13	576	0	0	1514	204	300	2594
2013-14	575	0	0	1502	304	498	2879
2014-15	497	0	271	1491	285	490	3034
2015-16	7304	0	287	1498	306	653	10048
2016-17	6804	0	426	4016	536	652	12434
2017-18	5310	0	191	5847	1096	805	13249
2018-19	5525	0	0	10509	2291	1129	19454

Source: KBZ Bank loan department (2009-19)

Below figure (4.1) shows that non-performing loans for construction sector is obviously larger in size during 2016-19. It is the result of huge amount of loans made from those years and economic down trend of that sector so far. For trade sector, 2015-2016 fiscal year was highest year of trade non-performing loans than other years because it shows that trade sector loans were granted most in that year. It can be said production sector was a good choice to KBZ bank because although loans are granted every year, only 2009-10 fiscal year has non-performing loans. Transport sector was the least granted sector among all sectors during study period and its NPL also was not

larger sharply. NPL for services sector was small because loans for that sector was granted in small portion. NPL of others business sector was high only in 2017-2019.

Figure (4.1) Non-performing Loans Value (Myanmar Kyat in million) of Six Sectors During 2009-2019
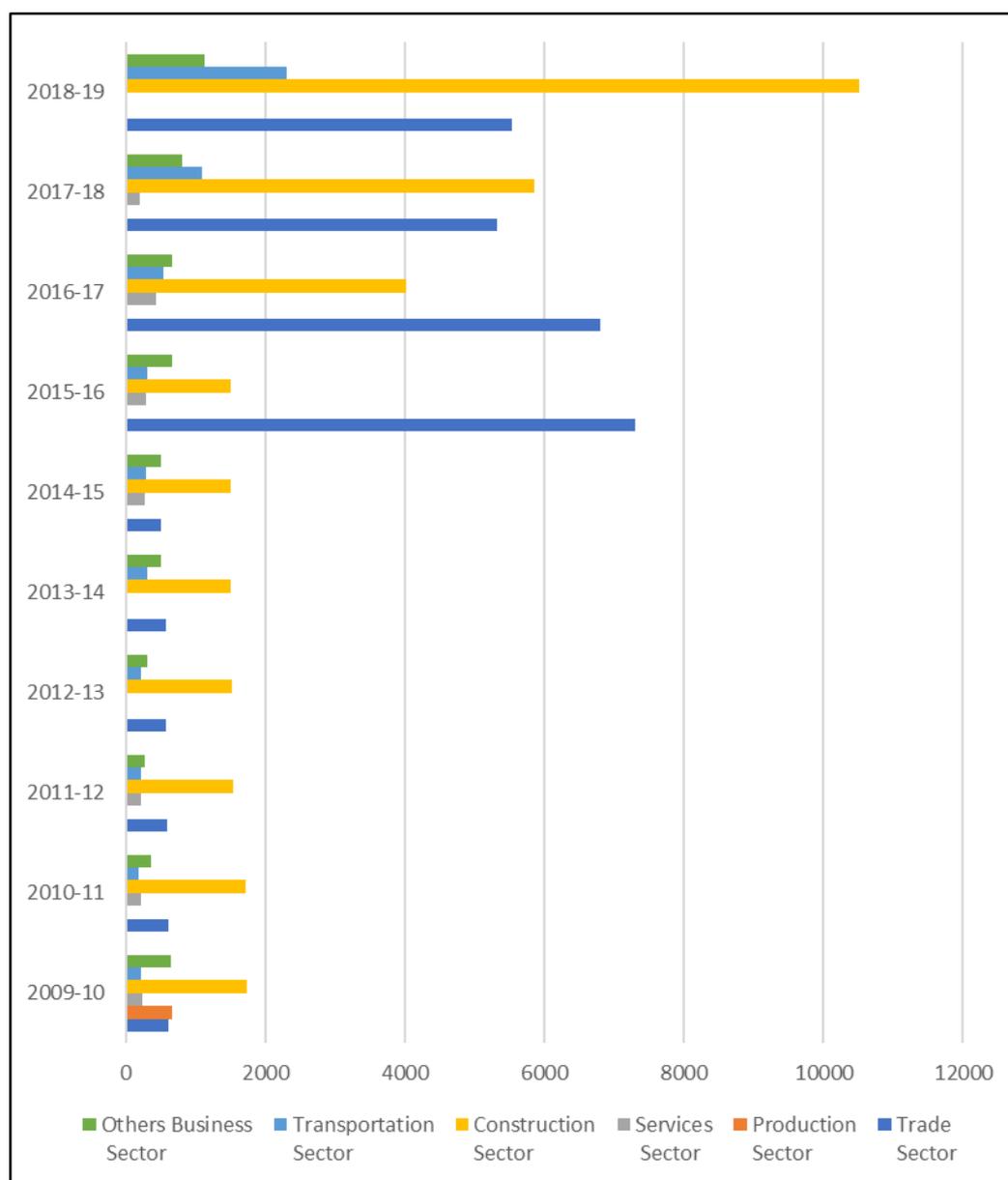
Source: Kanbawza Bank loan Department (2009-2019)

4.4   Relationship Between Loan Portfolio and Non-Performing Loans in KBZ Bank

This study is made by using the statistical software package, SPSS, to obtain the Pearson's Correlation and Multilinear Regression as presented in below table (4.2).

The data collected from loan value and non-performing amounts were used to indicate the two variables (loan portfolio and non-performing loans) in KBZ bank and to study the coefficients of the dependent variables over the ten financial years.

This study includes a multilinear regression analysis to identify the relationship between the size of the loan portfolio and the non-performing loans in KBZ bank. The coefficient of determination (R square) was computed to measure how well the statistical model was likely to predict future outcomes. The coefficient of determination, R square, is the square of the sample correlation coefficient between outcomes and predicted values. It explains the extent to which changes in the dependent variable can be explained by the change in the independent variable.

Table (4.2) Loan in Percentage of Six Sectors and Total NPL in KBZ Bank (2009-19)

Total NPL (Million MMK)	Trading(%)	Production(%)	Service(%)	Constuction(%)	Transport(%)	Others(%)
4070	18	29.77	20.26	7.27	1.03	23.35
3056	27	31.61	16.14	9.28	2.50	13.57
2709	25	24.88	16.28	9.61	2.74	21.37
2594	26	20.57	15.30	9.91	2.34	25.38
2879	26	16.75	15.17	11.76	1.73	29.00
3034	27	15.21	13.05	14.81	1.39	28.57
10048	28	13.19	13.48	13.71	1.34	30.07
12434	25	11.59	13.28	23.18	1.90	25.40
13249	24	11.44	13.42	28.32	3.91	18.84
19454	24	10.88	14.07	24.53	3.95	22.65

Source: Kanbawza Bank loan Department (2009-2019)

Table (4.3) Correlations Between Trading Sector Loan Portfolio and Non-performing loans

Correlations		Total NPL (Million MMK)	Trading (%)
Total NPL (Million MMK)	Pearson Correlation	1	**-.114**
	Sig. (2-tailed)		.754
	N	10	10
Trading (%)	Pearson Correlation	-.114	1
	Sig. (2-tailed)	.754	
	N	10	10

The table (4.3) shows that there is negative relationship between trading loan portfolio (Trading %) and total non-performing loan. It means the bigger the trading loan portfolio, the less the non-performing loans will be.

Table (4.4) Correlations Between Service Sector Loan Portfolio and Non-performing Loans

Correlations

		Total NPL (Million MMK)	Service (%)
Total NPL (Million MMK)	Pearson Correlation	1	**-.465**
	Sig. (2-tailed)		.175
	N	10	10
Service (%)	Pearson Correlation	-.465	1
	Sig. (2-tailed)	.175	
	N	10	10

The table (4.4) shows that there is negative relationship between service sector loan portfolio (service %) and total non-performing loan. It means that when there is large trading loan, total non-performing loans will be small.

Table (4.5) Correlations Between Construction Sector Loan Portfolio and Non-performing Loans

Correlations

		Total NPL (Million MMK)	Construction (%)
Total NPL (Million MMK)	Pearson Correlation	1	**.863**[**]
	Sig. (2-tailed)		.001
	N	10	10
Construction (%)	Pearson Correlation	.863[**]	1
	Sig. (2-tailed)	.001	
	N	10	10

The table (4.5) shows that there is strong and positive relationship between construction loan portfolio and total non-performing loan, at the 0.01 significance level. It means the bigger the construction loan portfolio, the more the non-performing loans will be.

Table (4.6) Correlations between Transport Sector Loan Portfolio and Non-performing Loans

Correlations			
		Total NPL (Million MMK)	Transport(%)
Total NPL (Million MMK)	Pearson Correlation	1	.584
	Sig. (2-tailed)		.076
	N	10	10
Transport (%)	Pearson Correlation	.584	1
	Sig. (2-tailed)	.076	
	N	10	10

Similarly, the table (4.6) shows that there is strong and significant relationship between transport sector loan and total non-performing loans.

Table (4.7) Correlations Between Others Sector Loan Portfolio and Non-performing loans

Correlations			
		Total NPL (Million MMK)	Others (%)
Total NPL (Million MMK)	Pearson Correlation	1	-.047
	Sig. (2-tailed)		.898
	N	10	10
Others (%)	Pearson Correlation	-.047	1
	Sig. (2-tailed)	.898	
	N	10	10

Nevertheless, table (4.7) shows that there is negative correlation between others sector loan and total non-performing loans.

Table (4.8) Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.924a	.854	.672	3449.672	.854	4.686	5	4	.080

a. Predictors: (Constant), Others (%), Construction (%), Trading (%), Transport (%), Service (%)

Table (4.8) shows that the whole model used for multilinear regression analysis has 0.08 significant F change meaning that the variables added in that step significantly improved the prediction.

Table (4.9) Multilinear Regression Analysis

Coefficientsa

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
1 (Constant)	-234075.809	153886.143		-1.521	.203		
Trading(%)	3512.835	2554.019	1.594	1.375	.241	.027	36.855
Service(%)	7071.548	4640.527	2.571	1.524	.202	.013	78.068
Constuction(%)	2158.106	1039.471	2.655	2.076	.106	.022	44.869
Transport(%)	-340.021	2234.737	-.058	-.152	.886	.253	3.955
Others(%)	630.869	445.373	.530	1.416	.230	.260	3.847

a. Dependent Variable: Total NPL (Million MMK)

According to the table (4.9), multilinear regression equation becomes with absolute value model,

Total NPL=-234075.809+3512.835X1+7071.548X2+2158.106X3
$\qquad$-340.021X4+630.869X5
$\qquad$ where as
X1=Trading %
X2=Service %
X3=Construction %
X4=Transport %
X5=Others %

The standard value model of this above table shows that if trading sector % has 1% increase, total NPL will be increased by 1.594%. Similarly, if service sector % has

1% increase, total NPL will be increased by 2.571%. Meanwhile, when construction sector % has 1% increase, total NPL will be increased by 2.655%. However, if transport sector % has 1% increase, total NPL will be decreased by 0.058%. But, for others sector, it has 1% increase, total NPL will be increased by 0.530%. It is noticed that all VIF value are greater than 10, it means these all sectors has multicollinearity between each other. Thus, there was found no significance value. Limitation of this study is that production sector has only non-performing loans in one year so it is found that the model excluded that sector.

To conclude, the study shows that loans are granted to six sectors every year and all these sectors play an important role of economic development. However, not every sector is not booming and has down trend like Construction sector. Meanwhile, the applied relationship points out that bad loans or non-performing loans results are positively related to those sectors of Construction and transportation sectors. It means the bigger the loan portfolio for these two sectors, the more the non-performing loans will be. Thus, Kanbawza bank should assess strongly for granting loans and constructive credit review. However, the applied relationship shows that trading, others and service sectors has negatively related to bank non-performing loans. It can be concluded that these three sectors help to make bank profit with more performing loans. Similarly, giving loans to production sector also benefit to bank. Promoting loans to these four sectors will largely impact on national development. Those sectors are also crucial and essential to any Nation.

CHAPTER V
CONCLUSION

This section will include two parts. First part is finding from this research, second part is recommendation and further study. Findings represent why this research was conducted, what kind of the problem were considered, what the result were.

5.1   Findings and Conclusions

In this study, there are two objectives to identify the loan portfolio in KBZ bank and to evaluate the relationship between loan portfolio and Non-performing loans of Kanbawza Bank. The findings revealed that there is a negative relationship between loan portfolio of trading, service and others sectors and non-performing loans of KBZ Bank while there is a strong and positive relationship between construction and transport sectors. As a result, KBZ bank should grant more loans to trading, service and others sectors in future, but construction and transport sectors are not good sectors to provide loans at the moment and should do more strict collection for those two sectors.

It is found that Kanbawza Bank provides loans to many sectors such as trade, service, transport, construction, production, others sectors. Loans are granted every year and this study is for ten-year period. From 2009-10 to 2014-15, the study shows that loan portfolio was increased in every sector respectively. It was because the new government took office in 2011 and it had a stabilizing effect on the country both politically and economically. The stabilization effect has a huge impact on the economy of the country testified by greater economic activities of local businessman and confidence level by foreign investors. At that time, foreign direct investment (FDI) were ready to support investment in most of the business. Until 2015, it was booming year for business like construction and loans are growing every year. It is found that after 2015-16, trade sector, production sector and service sector has decreased loan percentage until 2018-19. It can be due to relations between Myanmar and western countries. Loan for trading also relates with border trade regulations. Production also depends on local demand and volume of imported goods. It can be seen that KBZ bank has different loan portfolios for various sectors. In Myanmar, it is found that all banks offer loans as per CBM regulations.

Regarding with non-performing loans from various sectors, it is found total amount increased from 2009-10 to 2018-19. However, in production and service sectors, it is showed that in the study of some years, there was no NPL loans. Similarly, these two sectors were in good sectors to invest by bank according to study result. The result could

be easily said that these two sectors were good business lines and borrowers could make regular repayment. Another is repayment of loans which is also related to running business condition and borrower's character. Every sector development impacts the country development. It is found that current credit measurements in KBZ Bank are updated and standardized and so can hope that more quality loans will be made in future. Meanwhile, borrowers can have some difficulty when apply loan to meet bank current strict criteria. Current credit practices show that KBZ bank concentrate on future cash-flow projection rather than collateralization. Cash flow projection is reviewed whether strong and effective; exact cash flow in future, at a regular time and how strong company background is. Thus, it can be said that KBZ bank credit measurements can control in granting loans and prevent from resulting non-performing loans.

This study's finding will also be valuable to researchers and scholars as it will form a basis for further research. This is because it will contribute to the already existing knowledge on the relationship between loan portfolio and non-performing loans in KBZ Bank.

5.2 Suggestions

After this dissertation, there are some things need to improve for development of banking. Myanmar banking needs efficient market where right information is available. Central bank of Myanmar and all banks are still on the move for establishment of Credit Bureau. Lending section is a biggest asset for a bank so it is very important to assess right information of a borrower.

Another thing is business performance of a borrower. Every business has four cycles such as expansion, peak, contraction and trough so bank shall be able to consider which stage of business are financing. Nowadays, we can see that construction is in down trend with inequality of demand and supply. So, loan portfolio can be fixed for each financial year by calculating different types of risks and with strong inspection.

Next thing is uncontrolled risks such as country's risk, political risk and trade border risk which are still to be considered if long term loans are provided. Good risk management system also helps to control non-performing loans so the bank should maintain it. Last but not least, KBZ bank should employ sector experts and loan portfolio managers then it will help the bank loan portfolio.

5.3   Need for Further Study

      Here, some satisfactory answers could be given to objectives of the study for Kanbawza Bank. However, in this paper, one limitation is that loan portfolio was only the percentage composition of loan value granted for six sectors in each fiscal year. If some more data like each asset portfolio of bank asset of balance sheet could be get, the study should be study more.

      This study is needed to carry out in other banks in Myanmar and should find out what is the result like for other banks for the relationship of loan portfolio and non-performing loans.

REFERENCES

1. May Kha Naing. (2016), "Effect of Credit Risk Management on NPL loan in KBZ Bank", Yangon University of Economics, Department of Commerce,MBF Programme.

2. Zaw Win. (2013), "A study of Loan Functions of Kanbawza Bank Limited", Yangon University of Economics,Department of Economics, EMDevS Programme.

3. Wiley. (2019), Level 1 CFA study guide, Financial Reporting and Analysis. Volume 3: John Wiley & Sons, Inc., Hoboken, New Jersey.

4. Evelyn Hayden. Daniel Porath. Nitalja v. Westernhagen. (2007), "Does Diversification Improve the Performance of German Banks?", Revised, JEL Classification G21.G28.G 32

5. Kinoti Yvonne G. (2015), "The Effect of Non-performing Loans on the Size of the loan portfolio in Commercial Banks in Kenya", University of Nairobi.

6. Shahbaz Haneef. (2012), "Impact of Risk Management on Non-performing Loans and Profitability of Banking Sector", Vol.3, No.7,pp.314

7. Irum Saba. (2012) "Determinants of Non-performing Loans: Case of US Banking Sector" , The Romanian Economic Journal,Year XV no.44, pp.143

8. Neil H.Jacoby and Raymond J.Saulnier. (1942), Term lending to Business. Practices and Techniques of Term Lending. NBER, The National Bureau of Economic Research, pp.89-95

9. Pe Than Tin. (2003), Fundamental of Banking in Myanmar, (History, Law and Practice), Yangon. (in Myanmar Language)

10. Shekhar, KC and Shekhar, Lekshmy. (2005), Banking Theory and Practice. New Delhi: Vikas Publishing House PVT Ltd.